

**2015 AGRICULTURAL CENSUS ENUMERATOR'S
REFERENCE MANUAL**

**PHASE I & II
(FORM - I, FORM - II AND FORM - III)**

**AGRICULTURAL STATISTICS UNIT
STATISTICS BOTSWANA**

CHAPTER 1: GENERAL INTRODUCTION.

1.1 BACKGROUND

Data collection is an exercise that has been in use for many years in developed countries to study some characteristics of a particular unit of interest, say for example, a population, business growth, Agricultural production and other events. To achieve some of the above-mentioned examples, the collected data is processed and analysed to come up with some meaningful information that is consumable by users. Those people involved with data collection should do their level best to collect data as accurate as possible so that the summary statistics or information derived from the data is not way out of what is reasonable or expected. There are a lot of methods used for data collection depending on the type of data needed or depending on the nature of the issue being looked at. Some data are collected through experiments for scientific studies (observed variables, controlled variables), censuses and sample surveys through administration of the questionnaires (direct interviews and mailed questionnaires) like what is currently being practised by Statistics Botswana and hence the Agricultural Statistics Unit.

It is due to this background that research assistants or enumerators should take pride in their work and carry out data collection as accurately and as honestly as they possibly can to help the Agricultural Statistics Unit to come up with meaningful results that reflect the cross-section of what is being studied or monitored in the country for the past decades, that is, Agricultural data such as crop and livestock production, agricultural holdings and their characteristics like age, gender, size and so forth.

The sole purpose of conducting training workshops annually is to highlight the importance of data collection, to instil pride upon ourselves about what we are doing as a team and to share our experiences in the field so that we can improve upon what the Unit has already achieved. It is also to clarify any issues that may arise when interpreting some definitions or when trying to understand some procedures. The misunderstanding of procedures differs from team to team depending on how much has been understood by individual team members, therefore resulting in different opinions.

This manual contains the instructions or guidelines that will be needed in the field to carry out the assignment. It explains exactly what should be done when carrying out data collection. It is essential that everyone follows the same instructions and collects the data in exactly the same way as per

instructions in the manual; otherwise the survey results would not provide reliable estimates.

The manual will be updated from time to time in relation to the changes that may occur in the questionnaire or in relation to any procedures that may be introduced by the Office. This manual should therefore, be kept and used for reference at **all times** during the Agricultural Census period. The Agricultural census constitute a **sample** of the units (household units) of interest. This means that only some agricultural holders out of the total number of agricultural holders will be enumerated. However, they will be representative of all holders in an Enumeration Area (EA)/block and hence in a stratum. For this reason, the information collected from the selected holders must be correct and accurate as reported by the holding after probing.

Technical Assistants/Enumerators directly involved in data collection in the field are the key persons in our Agricultural Census, therefore they must obtain accurate information as much as possible from the sampled holders in order for accurate estimates to be made. The Agricultural Statistics Unit would like to request all supervisors and team members to make thorough listing of the block/EA and to make selection only when there is a considerable number of occupied dwellings. For those blocks/EAs that show a very low occupancy rate and yet the selection has been done the Agricultural Statistics Unit will, through quality control exercise make a follow up to these blocks to establish the prevailing situation. Any block that is found to have low occupancy rate but the selection having been made will be treated as **“NO GOOD”** until the situation is brought under control.

1.2. THE OBJECTIVES.

Since 1982, agricultural censuses are carried out to collect information on the current agricultural structure of Botswana. The census information is used to set up the baseline (data bank) that is updated and maintained by the use of information obtained from the annual agricultural surveys. This information is used mainly by Ministry of Agriculture for various purposes such as planning in the agricultural sector to improve production and provide data needed for agricultural policies. In particular, the data is essential in providing the basis for formulating and evaluating the National Development Plan programmes with particular reference to the Agricultural sector.

1.3 YOUR JOB AS AN ENUMERATOR.

As an enumerator, here are some of the things you will require when conducting the Agricultural census:

- Study this manual thoroughly, follow the instructions and refer to it whenever a problem arises. Consult with other team members if there is

any confusion or consult your supervisor, who will, in turn, consult the Unit if he/she has any doubts.

- Visit every selected EA/block and list all the units/dwellings within a EA/block, including ruins and units under construction. Supervisors are encouraged to check all the listed dwellings to ensure that his or her colleagues have not declared a dwelling unoccupied even when there is sign of life. The Teams should not rush to list a block and immediately select a sample even when there is reasonable doubt that a number of unoccupied dwellings are questionable or the number does not seem real. The sample selection should be carried out when the frame within the selected EA/block is complete in all respect.
- Interview all the selected Agricultural holders within the selected EA/block, i.e. fill out all the required answers for all the relevant questions accurately and completely. Then measure all croplands, including fallow land operated by the sampled Agricultural holder. Remember that your job is a full-time job. The nature of work calls for the team to work during weekends or after hours, therefore, people should comply.
- Enumerators and Supervisors are encouraged to discuss the work programme together in advance. The discussion should be lead by the supervisor. The team may have to adjust its working hours to the times when enumerators would be most likely to find a holder. This may suggest making calls on the early morning or late evening.
- Complete the enumeration of the sample holders within the block assigned to you. You are not permitted to combine your census duties with private, church or community work.
- The enumerators are not responsible for vehicle cleaning. This is the responsibility of the driver, but this does not stop the enumerator from cleaning the vehicle. Drivers should take instructions from the supervisor unless the supervisor delegates some duties to another person who will be responsible at that particular point in time. For example when doing a call back or being asked to go to a holder at a different location with the driver.

1.4 CONFIDENTIAL NATURE OF THE CENSUS INFORMATION.

All information collected from any of the agricultural census will be kept **confidential**. As a Statistics Botswana employee, you shall not reveal/disclose any census information which you got hold of in your capacity as an enumerator to anyone who is not an official of the Agricultural Statistics Unit or Statistics Botswana. To make sure that this confidentiality is maintained, you must follow these rules:

- Do not repeat or reveal any information you received (written, verbal or otherwise) from any respondent to anyone except to an Agricultural Statistics Unit or Statistics Botswana official.
- Do not leave any completed census questionnaire where it can be seen by anyone except an Agricultural Statistics Unit or Statistics Botswana official.
- Do not interview the respondent in the presence of non household members.

1.5. ENUMERATION PROCEDURES.

Enumeration procedures for this census may be divided into four stages:

- Listing and sketching of dwellings/households.
- Interviewing the sampled agricultural holders.
- Taking measurements of cropland areas and fallow land areas
- Taking livestock counts and crop production counts.

1.6 CONCLUSION.

The Agricultural Census is a national undertaking project of great importance to Botswana. Without the willingness and help of the general public, these operations cannot succeed, nor can they succeed without quality and honest employees like you who perform their duties with care, pride and with a sense of responsibility. It is therefore upon your shoulders to collect quality data so that this census becomes a success.

CHAPTER 2: VEHICLE AND VEHICLE RELATED POLICY.

2.1 GENERAL INFORMATION.

If it happens, that field teams do not work for days due to unacceptable reasons or as a result of absconding or play truant, some deductions of those days will be done or some appropriate disciplinary measures will be taken against such teams.

During the 2015 agricultural Census, private hired vehicles will be engaged, therefore, these vehicles should be used for official assignments only and misuse should be avoided at all. Disciplinary measures will be taken against team member (s) who found guilty of misuse. When there is vehicle breakdown, the team should seek some alternatives which include the following:

- Inform the office for replacement or seek help from DAC or DAO.
- The exigency of your work calls for you to use other means necessary, which you see fit to help you do your work on time.

These suggestions have to be strictly followed so that Statistics Botswana produces timely data. Therefore, it is vital that vehicles are running in order to complete the census on time.

2.2 POLICY.

The best procedure to keep the vehicle operational is to follow Statistics Botswana transport regulations, reduce kilometres driven by planning your trips better according to distance, direction and location of EAs/blocks in a particular district, and stop the misuse and abuse of **Statistics Botswana** privately hired vehicles. Teams are encouraged to camp at a central location, which is within reach of the surrounding EAs/blocks.

- **Follow Statistics Botswana Regulations:** The enumerators, supervisors and drivers are responsible for knowing and following the regulations.
- **Usage of Vehicles should be held to optimal:** Better planning in the enumeration of the selected EAs/blocks is needed. Returning to base after only one block is completed will not be allowed. We would appreciate if blocks could be enumerated in a sequential order (taking into account mileage and road conditions).
- Reduction in kilometres travelled will allow more time for enumeration. Thus more than one block per day can be enumerated if **travel time** is reduced.
- **Census Planning:** It will be the supervisor's responsibility to submit a census work plan (itinerary) to the Agricultural Statistics Unit. The work plan should include the Enumeration Areas to be covered and dates. Team members should try to follow their itinerary for easy progress reviews.
- **Other points:** Night travel should be avoided as much as possible. Vehicles should be fuelled on time to avoid delays when starting field trips. Officers are requested to sort out their belongings on time so that no time is spent waiting for a team member collecting his or her belongings.

2.3 ALTERNATIVE MEASURES.

The teams are encouraged to enumerate EAs/Blocks that are within duty stations last, so that if there are vehicle breakdowns, teams would be able to get around on foot and continue working without vehicle. **This should be considered when teams draw their work plans.**

2.4 VEHICLE SERVICE

Have your vehicle serviced when needed. Make sure you arrange for an appointment with the Statistics Botswana so as to have one-day service. Also plan your servicing to avoid its interfering with your work schedule.

2.5. SUPERVISION.

The supervisor is responsible for checking the completeness of the enumerators' work. During the course of the census, at least two questionnaires from each enumerator will be selected and then re-interviewed by the quality control team. Any gross discrepancies will reflect on the enumerator as well as the team supervisor and corrective measures will be taken. **Supervisors are responsible for the work of their teams.** Work progress will depend much upon planning and co-operation. We would also expect supervisors to submit completed blocks and progress report to the office **on monthly basis.**

2.6. GUIDELINES FOR CENSUS WORK.

The following instructions indicate guidelines for completing the census work. Study this section carefully before beginning work and use as a reference throughout the census period.

2.7 ORGANISE YOUR MATERIALS

Before starting fieldwork, you should have all equipment and supplies you will need in the field.

- **Work Equipment:** Take EA/block maps, District maps, and census materials (GPS, envelopes, questionnaires, Pencils, Pens, erasers, extra questionnaires) enough for the work schedule. Other necessary equipment includes; Enumerators Manual and Statistics Botswana Identification Cards and Letter of introduction.
- **Personal Belongings:** Take enough clothes for the extended trip. You may be in the field for several weeks at a time. However, do not bring too many clothes, as space in the vehicle is limited. You will be travelling over rough roads so do not bring things that break or damage easily and valuable items that can attract theft. It is usually a good idea to buy food in bulk before leaving for the field. This might save money compared to buying items in the field. Plan your course of action. Before enumerating, locate the physical boundaries of the block using EA maps. Use these EA maps to make your travel plans. Minimise your mileage and duplication of travel. Plan an efficient route so that you can make callbacks whenever the situation arises.

2.8. GUIDE FOR ENUMERATING BLOCKS.

- Upon arrival at the block identify your location on the map. Before starting work, it is usually customary to talk with the Headman or Chief and/or Agricultural Demonstrators. These people can help you become familiar with the EA/block assigned to you.
- If possible, drive or walk around the EA/block to identify boundaries of the village EA/block. Become familiar with the block boundaries and landmarks. This will help you in your listing and later on with the actual enumeration of the block.
- Supervisors should divide the block into smaller areas along roads, streams or any outstanding landmarks that can stand as an identifiable boundary during the listing. Then assign these sections of the block to enumerators for listing.
- The enumerators need to visit each dwelling unit with a definite plan in mind such as listing of dwellings from one side of the EA/block to the other following the same direction within the definable boundaries as assigned to you by the supervisor. Avoid listing dwellings, which are outside the EA/block. The dwelling numbers are printed on the metal plates pinned on the doors, trees, poles etc. (if available). Enumerators are advised that some dwelling units, which were missed or did not exist during the 2011 Population & Housing Census, should also be included during listing and then assigned numbers. These units should be clearly indicated in the sketch of the Enumeration Area as indicated at the back of Form I showing exact locations.
- Draw a sketch at the same time on the back of Form I showing relative positions and dwelling numbers along with important landmarks, roads, paths, streams etc.

CHAPTER 3: ENUMERATION PROCEDURES.

3.1 HOW TO CONDUCT THE INTERVIEW.

Much of your success as an enumerator will depend on the way you conduct your interviews. Follow these guidelines to help you make the interview more effective:

- **Your Approach:** No pattern will fit every interviewing situation you will encounter, so you must be able to adapt to the different situations. Your approach should be such that no person is offended by your presence. Besides having common sense, patience and tact, you must be courteous and thoughtful at all times. Such little action as removing your hat upon entering a home will help create a favourable

impression. Begin your interview by saying something like this: **“DUMELANG, I am X I have been appointed by Statistics Botswana to Conduct Agricultural Census. I would appreciate if you could answer all questions about your farming operations”**. Mention a little bit about the importance of data collection (objectives). Sometimes a little talk may be necessary to put the respondent at ease. Be friendly, but spend as little time as possible in this way. This approach sometimes helps to ease those who show some hostility before they know what the interview is all about.

- **Selecting a Responsible Person to Interview:** The interview should take place with the holder himself or herself. Should he or she be absent, **then** the most responsible member of the household, that is, his/her spouse who can answer the question accurately is to be interviewed. If no reasonable member is available, you must visit the holding again. Avoid conducting the interview in the presence of a group of other people other than the respondent's immediate family members. **Point out that the information the respondent gives is confidential and that you would like to speak to the respondent alone.**
- **The Interview:** Ask the census questions in the order in which they appear and as they are worded in the questionnaire, read the question again if the respondent hesitates or does not seem to understand. Listen carefully to his or her replies and make sure you enter the information correctly. Make sure the answers he or she gives you are a response to the questions you asked, not to what the respondent thinks he or she heard, i.e. make sure that the respondent understands the question being asked. If you doubt the accuracy of any answer, make sure that the respondent has understood the question and try hard to get correct answers as far as you possibly can. Try by all means not to put leading questions to the respondent. There are some questions which may not be easy for respondents to answer quickly, e.g. ages of household members, sale of livestock etc. When you are satisfied that you have obtained all of the required information, thank the respondent for his or her co-operation.
- **Translation:** It is your responsibility as an interviewer to translate the questions in the questionnaire. But to be able to do that you must understand the meaning and the content of the questions in the questionnaire first. Make sure you translate the full meaning of the question. For example, if the question reads “Do you or anyone in your household raise, operate, or manage any cattle”? Do not ask, “How many cattle do you have”? That is, do not lead the respondent when collecting the information, but give them the chance to answer voluntarily and freely. Some questions may seem offensive to the respondent and therefore may result in the respondent withholding the

information. Be as tactful as ever in order to defuse the tension that may develop between you and the respondent.

- **Probing:** Sometimes the respondent does not know the exact answer. Then it is your responsibility as an enumerator to obtain the “best” answer possible from the respondent. Do not put “words in the respondent’s mouth or try to “lead” the respondent. For example, if the respondent says he has about 20-24 cows, then it is your responsibility to obtain his or her best estimate. Do not say, “**Is 24 all right**”? because the respondent will usually say yes to your question. Instead, ask him or her what number is his or her best estimate. Therefore, you need to probe to receive the best possible answer without offending the respondent.

- **How to Handle Refusals:** You may encounter a few suspicious or uncooperative persons who may resist answering such questions as those relating to livestock on the questionnaire. In extreme cases, they may refuse to answer any of your questions. A friendly and frank approach may overcome this resistance. Explain again the purpose of the exercise and point out that the information **is strictly confidential**, that all Statistics Botswana employees are sworn to secrecy, and that no information concerning an individual is revealed to anyone other than people entrusted with the information.

3.2 REVIEW OF YOUR WORK.

At the completion of each interview, review the questionnaire you have completed, using the following checks as a guide:

- Check if all relevant questions have been asked and their answers have been recorded accordingly.
- Questionnaire should be filled in with a pencil as neatly and clearly as possible.
All figures must be entered with arithmetic numbers (0, 1, 2, 3, etc).
- Check if there are any blanks or inconsistencies for all the relevant entries. If there are any inconsistencies, go back to the respondent and rectify the mistakes.
- Check if there are any callbacks that are still outstanding? If there are any, see if you can make any of these callbacks on the route you planned for the next trip or on your way to another locality or block.

3.3 CALL-BACKS.

A callback may be required to obtain all or part of the census information for a holder when no suitable respondent is available on your first visit. During the survey period callbacks will be required during listing if contact was not made during the first visit. Avoid declaring a dwelling vacant when there is enough reason to believe that someone was there the previous day or so. Badly managed callbacks are one of the main reasons for delay in completing enumeration. It is essential that you plan efficiently to prevent your callbacks from accumulating. Avoid having too many callbacks ahead of you at any time. Make your revisits as soon as possible after the first call, and try to work them in your regular canvassing while you are still in the same block and try to ascertain as to when the respondent is likely to be in the holding.

If after several attempts you still are unable to contact the holder, then write the reason on the face page of the questionnaire. This should be done as the last resort after consultation with the supervisor but be warned that should the quality control team find out that your reasons do not reflect the true state of affairs, serious consequences may befall you. **Note that callbacks done after 1630 do not attract overtime for field staff but for the driver.**

3.4 HOW TO FILL IN THE QUESTIONNAIRE.

- Information collected in the census will be **processed** using a computer. Therefore, it is required that all information must be entered on the questionnaire as a **number**, where applicable. Part of coding will be done in the office on the basis of the information contained in the questionnaire.
- All entries may be divided into two categories, entries that you enter and those entered in the office. Entries should be written clearly and correctly with a pen. Do not write in the box that is marked 'office use'.

CHAPTER 4: DEFINITIONS

- **Head of Household:** is any adult who is regarded by other members of the household as their head. This person may or may not be related to other members of the household by blood. In most cases, this may be either the husband or the wife in case of married couples. In other cases it may be one of the responsible or senior person in the household. There will be cases where the head of the household is not available during the visit. In such cases, one of the responsible persons or senior persons who is available during the visit or during the interview who is a member of the household would normally be interviewed and

he or she would assume the responsibility of the head-ship of the household. If the head of the household spent the night there but is not available by the time you reach the dwelling, the next senior person can answer the question. Such person is the respondent not the head of the household (see the definition of respondent below).

Holder (Agricultural Holder): is the person who makes the day-to-day decisions for the agricultural holding. A holder could be the owner, manager, senior partner, etc. A Holder has the responsibility for the holding and may delegate responsibilities related to day-to-day work to other persons. A holder can be residing on-farm or residing somewhere else, but still making major decisions on the operations of the Holding.

IT IS VERY IMPORTANT TO TAKE INTO ACCOUNT THE FOLLOWING CONSIDERATIONS IN THE DETERMINATION OF AN AGRICULTURAL HOLDER:

- It must always be a one-to-one correspondence between a Holder and a Holding.
- In Rural areas, a one-to-one correspondence between a Holding and a Household is quite common, but in some households there can be more than one holder, when each person operates different pieces of land or different livestock. This is usually the case in instances of Mafisa or polygamy. Then, each piece of land or livestock becomes a holding with a holder or acting head as the case may be. **However, if the agricultural operations and the production obtained in all those pieces of land or livestock are communal for all members of a household, there will be only one holder and only one holding.** In this case, the holder will be the household member, who spends more time on the farm; and if more than one person spend equal time, the holder will be chosen according to these priorities: father, mother, eldest son and so forth. Note that other household members participating in the work of the holding will be regarded as members of the labour force of the holding.
- When two or more persons belonging to different households operate the same holding, the eldest person will be considered as the holder.
- A holder can operate a land that is owned and/or leased and/or under any other form of land tenure.
- **Holding (Agricultural holding):** It is an “**ECONOMIC UNIT**” of agricultural production under single management comprising of total land area and livestock owned, managed, rented or operated by the holder. It includes cultivated lands, cattle holdings, farm dwellings, fallow land, etc. The Holding may consist of one or more pieces of land, located

inside or outside the selected block, in one or more separate areas, but inside the same Agricultural District, provided the pieces of land share the same “**PRODUCTION MEANS**’ utilised by the holding, such as labour, machinery or draught animals.

- **Respondent:** The person who answers the questions for the census, usually it is the holder or the senior person in a holding.
- **Field:** An area of land under one use. For example, under one crop, under one crop mixture, or under fallow land.
- **Fallow Land:** Land **not** planted this year but has been planted in previous years. Depending on the geographical area and on the ecological zone, a fallow land can differ. In the mopane ecological zone, a piece of land, which is not used for a year, will not look fallow as compared to other ecological zones. Good discretion should be taken when declaring a piece of land “**fallow**” when the respondent gives you the last time the land was ploughed, usually one to five years where and when a fallow land displays the readiness for ploughing during this cropping year.
- **Planted Land:** Area that has been planted during the **current agricultural season**. It includes the land that was planted but could not be harvested during the survey.
- **Crop Mixture:** Refers to when two or more crops are inter-planted (mixed) with each other in the same piece of land.
- **Mafisa-in:** Refers to livestock which has been borrowed by another person to look after and benefit from milk and or draught power. These livestock still belongs to the owner and the one looking after cannot take any decision concerning these livestock without consultation.
- **Exotic breeds:** these are the breeds which are not originating from this country (Botswana). These are the breeds such as Simmental, Brahman, etc. For goats it includes Boer goat, Savannah, Sanaan, Kalahari red etc and for sheep it includes Damara, Doper, Karakul, etc.
- **An enumeration Area can be defined as follows:**
 - This is a definable land areas located on your maps. The holders you enumerate are selected from these blocks.
 - An Enumeration Area (EA) is the smallest geographic unit, which represents an average workload for an enumerator over a specified period. The average size of an EA is approximately 120-150 malwapa.

- An EA may be a whole locality (this is the case of a small village which is an EA by itself), a part of a locality (this is the case of a bigger village which has been divided into more than one EA) or a group of localities (this is the case of cattle posts, lands areas or freehold farms).
 - Note that you will be allocated a list of EAs and you will be responsible for visiting every lolwapa in them and for recording the information required. in respect of every person in the household(s) constituting the lolwapa.
 - It is important that you are able to identify an EA assigned to you with the help of a map.
 - For an EA, which consists of smaller localities, you will be given a map showing the location of the localities in the EA and the approximate number of malwapa in each locality.
 - For an EA that forms part of a big village, you will also be given a map, which will show you the location of the EA relative to adjacent areas in the village. For the identification of the EA you will depend on:
 - EA boundaries will be highlighted in red to distinguish it from other EAs which may appear on your map but which are not assigned to you. Make sure that you know the boundaries of your EA so that you do not leave out some malwapa or include those that do not belong to your area.
- **Census Year (Census/survey/Agricultural season):** It is from October of the previous year to September of the calendar year, that is, the agricultural season, census or survey year is from 1ST October of the previous year to 30th September of the current year.
- **Dwelling Unit/Lolwapa:** For the purpose of the census, a dwelling unit will be a “Lolwapa”. The census plate number, usually found in one of the doors in the dwelling unit as used by the 2011 Population and Housing Census, identifies this. Several dwelling units may be found in the same compound but a dwelling unit is not the same as a household.
- **Household:** It is any unit or family or group of persons having the same cooking arrangements and/or “living under the same roof”. A household consists of a Head of household and other family members, related or not related.

- **Permanent Residence:** It is the usual place of residence. It is the physical structure of a dwelling, which could be occupied by the holder and/or members of his family and/or workers or it could be unoccupied on the census day.
- **Agricultural Season:** The Agricultural season in Botswana starts in October when ploughing and planting starts until September of the next year after the crops have been harvested.
- **Planting Season:** The planting season is from October to February of the next year.
- **Harvest Season:** It starts from June to August of the same year.
- **Sampling Frame:** In statistical terms, a frame is a complete list of all the units of interest from which a sample is drawn. These units of interest usually form a population or universe of their own.
- **Area Harvested:** The area from which a crop is gathered during the current crop year.
- **Chemical Fertiliser:** The fertilisers like urea, ammonia, phosphate and potash, etc.
- **Weed:** A wild plant/crop growing where it is not wanted.
- **Manure:** The fertiliser like cow dung, poultry manure, etc.
- **Bull:** A full grown male that is used for breeding purposes (usually over three years of age).
- **Ox:** A full grown male that has been castrated (usually over three years of age).
- **Cow:** A full grown female (usually over three years) that has calved.
- **Heifer:** A young female that has not yet calved and it is at least one year old but less than three years old.
- **Tollies:** A young male that is at least one year old but less than three years old.
- **Chickens:** A general term used to describe hens, roosters, chicks, pullets, etc.
- **Deaths:** Permanent end of life of an animal.

- **Sales:** Exchange of goods and service for monetary value.
- **Hay:** These are stock feeds produced from dry crop residues e.g letlhaka.
- **Silage:** These are stock feeds produced from green crops at flowering stage.
- **Home consumption:** The number of livestock slaughtered for household use or the amount of crops used in the household.

CHAPTER 5. CHARACTERISTICS OF AN AGRICULTURAL HOLDING.

Any household to be considered as an agricultural holding **MUST** have at least one of the following operations or land uses:

- **Fallow Land**
- **Planted Land**
- Over and above the land operations, a household may also operate livestock. Any Household without any of the conditions mentioned above, but has any of the following livestock (includes "MAFISA in") **MUST** be considered as a holding:
 - At least a beast (a cow, a calf, a bull, an ox, a heifer, a tollie), at least a goat, one sheep, a donkey, a horse or a pig. Any livestock belonging to managers, administrators, workers or relatives that are with the holding are included.

RULES APPLIED DURING THE AGRICULTURAL CENSUS WHEN THE HOLDER HAS MORE THAN ONE PERMANENT RESIDENCE:

- When the permanent residences are reported in different strata (i.e. at the village, lands or Cattle Post) interview the respondent in these different strata.

CHAPTER 6: FORM I: IDENTIFICATION FORM – First Visit

Section I: Locality Identification.

The front page for this form is for identification purposes. The identification part on the face page question 1 through question 5 for each form for a particular block must always be the same. You can obtain the correct information from the outside of the block envelope or from the other forms as the case may be.

Several enumerators may be engaged within a particular EA/block for listing and therefore, the dwelling numbers within forms will not be numbered sequentially, i. e adjacent or opposite dwellings may not necessarily be in an orderly and fashionable order. Note that two spaces have been provided for codes corresponding to Administrative Districts followed by two (2) spaces for codes corresponding to Census Districts. There are also six (6) spaces corresponding to Enumeration Area which will be provided in list of EAs allocated to the team and four (4) spaces for Block number e.g. 3001, 2001 or 1001 which stand for V1, L1 or C1 respectively provided in the list.

NOTE: BOX LABELLED “FORM CONTINUATION” WILL BE FILLED IN BY THE SUPERVISOR IN THE FIELD DURING LISTING.

Since it is possible to have more than **ONE (1)** Form I completed for a block, we would like a record keeping system to be able to know how many forms were completed for that particular block. This record keeping system helps us realise that at least the **SAMPLING FRAME** within a block is **COMPLETE**. Example of how to complete boxes is as follows:

- If only one form I was completed, then, the information inside BOX titled “Form Continuation” should read: (a) Under Total Number of Forms ‘ 1’ and
“This page is” Part 1 of 1

- If ‘N’ forms have been completed then the information inside BOX labelled “Form Continuation” should read:

“Total Number of Forms” ‘N’ and

“Part” 1 of N

“Part” 2 of N

Thus if total number of forms is 2, first form becomes part 1 of 2 and the second and last form becomes part 2 of 2.

- Enumerators should write their full names in the appropriate box **(Q6b)**

- Write the date during which the listing started **(Q7)**
- Write the date when listing was completed. **(Q8)**
- Supervisors should also write their full names, signatures and dates after reviewing and checking the completed questionnaires **(Q9) and Date on question (Q10)**

Question 11 is to be used by the supervisor for selecting the sample of holders for form II. Question 12 is to be filled by the supervisor. Each part represent one completed Form I questionnaire. In question 12a, the **“Total Number of Holders”** refers to all identified agricultural holders, inclusive of Cattle Holders. The total number of holders is entered in 12a **(Total Number of Holders)** and the total number of cattle holders is entered in 12b **(Total Number of Cattle Holders)**. The number for selection in question 13a is equal to “Number of holders” minus “Cattle Holders”.

It is this “Number for selection” that constitutes a new frame of agricultural holders from which a sample of holders is drawn. This number determines the class, the random start and the sampling interval, which are provided in question 11. Given the class, the random start and the sampling interval, a sample is drawn and the size of this sample is the figure that is entered in question 13b labelled “Number of selected Holders”. In questions 13c, 13d and question 13e the office seeks to establish at first hand the total number of selected holdings (Total sample of holders), the total number of dwellings and the total number of occupied dwellings. This information is very important in the sense that the Office can determine the occupancy rate quicker and decide whether a particular block needs to be visited for quality control purposes.

Section II: Listing Of Dwellings And Households.

Question 14a

On arrival at the Lolwapa, greet the occupants and identify yourself as an Statistics Botswana enumerator. Explain the purpose of Census. For each dwelling unit in a block, check for the dwelling number as indicated in the census number plate on one of the doors or placed somewhere within the dwelling unit.

Column 1: Dwelling Number (Census Number Plate or 77xxx).

Write the dwelling number. This is found in one of the doors of the dwelling units. These dwelling numbers were used during the 2011 Population and Housing Census. For all the dwelling units which are found without a census number plate you should assign “77001” for the first dwelling, “77002” for the

second dwelling and so forth. Make sure you list all dwelling units in a block. If the number of dwellings per block is increasing or decreasing when compared to the population census count and the occupancy rate is also going down, this could be due to any of the following:

- The listing was not complete or
- People might have migrated to land areas during ploughing\planting seasons or
- People have moved from a particular area during that particular time, particularly after harvest people tend to move to either cattle posts or villages

Please do not rush to finish the listing and sampling from an incomplete frame. This has an adverse effect on our statistics.

Column 2: Is This Dwelling Occupied At This Time?

Ascertain whether the dwelling unit is occupied. If it is occupied, i.e. if there are people present or there is a “sign of life” enter code 1 otherwise enter code 2 if there is no sign of life indicating or showing any presence of people in the dwelling unit. This tendency of putting a 2 is a major concern now because information is lost through laziness. If there is a sign of life, that is, there is enough evidence to suggest that someone is living in the household but is not at home at the time of your visit, try to find additional information about the holder from neighbours to arrange for a convenient time to re-visit. **Make at least 3 callbacks.** If a “YES” is indicated in column 2, then all other relevant questions for that particular household should be filled in with answers, except where digit 3, 4 or 5 appears in column 4.

Column 3: Household Number

You must assign a number to each household in a dwelling unit. Some dwelling units may have more than one household. If you come across such a case, number the households consecutively on the form. For example, if dwelling No. 1 has one household then the household number will be 1, if the second dwelling (dwelling No. 2) has three households, then the first household number will be 2 and the second household number will be 3 and so on until the list of households in that dwelling is exhausted.

Column 4: Interview Status

The codes under this question show the nature of the interview irrespective of the time and date of the interview, i.e. whether the interview is completed during the first visit or completed at the time you made a callback. Codes should be used accordingly. Note that the dwelling units can only be declared “5 - Not at home”, after several visits. Make sure that once the holding is declared occupied, i. e when a code “1” appears in column 2, the expected codes under column 4 should appear as follows:

Column 2

1
1
1
1

Column 4.

1.
2, 2, 2, 5.
2, 2, 2, 4.
2, 2, 2, 1.

Once the dwelling is declared unoccupied, the correct codes under columns 2 and 4 are 2 and 3 respectively. For example the codes should be as follows:

Column 2

2

Column 4.

3.

Column 5: What Is The Name of the Head Of This Household?

Establish the Head of Household and write his/her name in the space provided. Usually the head of the household is someone who stays within the holding most of the time. Write first names and then surnames in block letters.

Column 6: Sex

1. Male

2. Female

Enter the appropriate code for the sex of the head of the household. Make sure the information is for the person listed in Column 5. It is usually easy to identify a person's sex by physical appearance, especially the older people. Do not take it for granted especially when establishing the sex for children. Also avoid using names to establish a person's gender because some names are unisex.

Column 7: Is The Head Of This Household Living In This Household At This Time?

Determine if the **Head of Household** is "living" in this household unit. If he or she is living in the household, enter code 1 otherwise enter code 2 for not living in the household unit. If the head has gone to town for a night or is staying over night with his or her cattle, then he or she would be considered living in the household unit. However, if he or she is staying in a home at another place (mines, cattle post or lands), then he or she would be considered not living in that household unit. This should not be confused with the household schedule in FORM II when dealing with people who spent the night in the household.

Column 8: How Many People Usually live in This Household?

Include the total number of people “staying” in the household unit (family, friends, servants, employees and so forth). **Exclude** family members or head of household who are not “staying in the household unit”. Do not forget to include the elderly and babies.

Column 9: Does Any Member Of This Household Own, Manage Or Operate Any Of The Following in Question 9A-9I? (Within this EA) (Include Owned And Mafisa Livestock).

This column is very important since it determines whether any member of the household is an agricultural holder or not. It has many parts and all parts **must** be asked and answered. Answers should be given in numeric form. The total number should be recorded as reported by the respondent.

Column 9A: Does Any Member Of This Household Own, Manage Or Operate Any Lands?

Ask whether there is anyone in the household who owns, manages or operates lands. If anyone does, enter code 1 or else code 2.

Column 9B: Does Any Member Of This Household Own, Operate Or Manage Any Crops?

Enter code 1 if there is anyone within the household unit who owns, manages or operates any crops. Otherwise enter code 2. If code 1 is entered in this column then code 1 should have been entered in column 9A for land operation because there is no way one would have a code 2 at column 9a and 1 at column 9b. **Note** that those who operate or manage crops on borrowed land are also included.

Columns 9C-9H: Does Any Member Of This Household Own, Operate Or Manage Any Cattle, Sheep, Goats, Donkeys\Mules, Horses And Pigs?

If the answer is “YES” for any of the above, ask for the total number of livestock and write the numbers in their appropriate boxes. Where the answer is “NO” enter zero “0”. **Note** that donkeys and mules should be counted together. For column 9C ask for the total number of cattle (bulls, oxen, cows, heifers, tollies and calves). **Note** that donkeys and mules should be counted together.

Column 9I: Does Any Member Of This Household Own, Operate Or Manage Any Poultry?

This would include chickens and any other types of birds. If the answer is “YES” enter the number in the space provided (being the total number of

chickens and other birds). **Note** that this column excludes chickens and other birds for commercial purposes.

Column 9J: Does Any Member Of This Household Own, Operate Or Manage Any Other Livestock?

Ask whether there are other types of livestock other than those indicated in columns 9C-9H. If the answer is "YES" enter the number in the space provided (9J) otherwise enter ZERO (0). Some of such livestock would include cats, camels, dogs etc. and are to be counted together.

Note that columns 9I & 9J on their own cannot be used to identify an agricultural holding.

Column 10: Ask for The Holder's Name If Any of the Following Is Reported: LAND, CROPS AND LIVESTOCK (i.e. 9A -9H).

To identify the holder, the following should apply:

- If the entry in column 9A is 1 and the entry in column 9B is 1 or 2 and all entries in columns 9C – 9H are zero "0", the household qualifies as an agricultural holding.
- If the entries in both columns 9A and 9B are 2, BUT there are entries or numbers in any of columns 9C – 9H besides zero "0", the household qualifies as an agricultural holding.
- Note that all the above situations can happen at the same time. That is, if the entry in column 9A is 1 and the entry in column 9B is 1 or 2 and there is an entry in any of columns 9C – 9H besides zero "0", the household qualifies as an agricultural holding.

You should therefore ask for the name of the holder. If it is the same as in column 5 write "**SAME**" to avoid repetition of name. In cases where the head of household is not the holder, write the full name of the holder in the provided space. This column can only be filled in with the name of the holder or "same" as the case may be **if and only if** the holding qualifies as an Agricultural holding.

NOTE: If in a holding, an elder child looks after livestock for the holding or the wife looks after crops, they should not be considered as holders.

Column 11A: To Be Used By Supervisor To Identify Agricultural Holders And For Sample Selection.

Supervisors should indicate those households that are engaged in agriculture by placing 1 in this column. You should never write anything in the columns

or spaces labelled “**FOR OFFICE USE**”, that is, column 11B. If the household is not an agricultural holding and hence does not qualify to be selected for Form II, the supervisor should indicate this by placing a Zero (0) in this column.

Column 12: Do You Have Any Other Permanent Dwellings Other Than Here (within this EA), And If Yes, Where Are They Located? (Write Locality Names).

Write the names of the localities where the holder has other permanent dwellings other than the one occupied at the time of the interview. These localities could be either within Lands stratum, Village stratum or Cattle post stratum depending on the place of interview. This information can help you avoid or detect duplication during sample selection within the district (village, cattle-post and lands strata).

Upon completion of the interview of any holding:

- Check the entries for completeness and accuracy before leaving the respondent.
- Thank the respondent and inform him or her that you may visit for some more information at a later stage during the course of the survey.

Section III: Sketch Map Of The Block

Question 15

Draw roads, rivers, schools and other landmarks on the map that can help you or any quality control team should the need arise to revisit the selected holdings.

Place dwelling numbers on the map where possible, that is, when the dwellings are not clustered so that the readings are legible.

Sketch maps are to be drawn for all blocks without fail and should be done on page 4 of **FORM 1** using the following legend: -

	Main Road
-----	Secondary Road, Main Track
#####	Railway Line
~~~~~	River, Sand River

**Enumerator / Supervisor Comment Box**

The comment box should be used to write any pertinent information or difficulties encountered during listing that might have contributed either negatively or positively to the listing of households and identifying Agricultural Holdings. Please write clearly. The supervisor should always assess the

enumerator's comments and should address any queries thereof. These comments sometimes help the quality control team in reaching certain decisions during editing and coding in the office.

Upon completion of the block:

- Review the form(s) for completeness and accuracy before leaving the selected block. Make sure there is a flow of information before putting your signature in any questionnaire.
- Fill in questions 14b to 14e for each completed questionnaire.

## **CHAPTER 7: SELECTION OF HOUSEHOLD SAMPLE**

### **7.1. GENERAL:**

The supervisors are responsible for selecting the sample from a frame of identified agricultural holders in a selected block. As opposed to a complete interview of the identified agricultural holders, a sample is selected to reduce the cost in terms of manpower, finance and time, as it is a constraint in any survey work.

It should be noted that all supervisors and enumerators must know the procedure for selecting the sample. Assisting each other during the selection process will minimise wrong selections.

#### **Step 1: Identifying Agricultural Holders**

- First determine if any member of the household is engaged in any agricultural activity. This is determined by Column 9. That is, if column 9A is 1 and column 9B is 1 or 2 and/or there is an entry in any of columns 9C – 9H besides zero "0", the household is considered as an agricultural holding.
- If you have determined that a person is an agricultural holder, then place a "1" in column 11a, otherwise place a Zero "0" for a non-agricultural holder.
- Number all the identified agricultural holdings sequentially, excluding cattle holdings (CHs).
- Add up all the "1's" in column 11a and enter this total at the bottom of the column written "**Total number of holders ...on this FORM**" (Q14 d).

## Step 2: Identifying Cattle Holders (CH):

- Every holder who has reported 100 cattle or more in column 9C is referred to as an Cattle Holder and is automatically included in the sample. He/she is identified by placing a “square” around entry “1” in column 11a.
- Add up the total number of cattle holders for a particular form and record the number at the bottom of the column written “**Cattle Holders with 100 cattle or more**” (Q14e).

## Step 3: Completing Questions 14b and 14c

Check the questionnaire for completeness and consistency particularly dwellings listed (column 1), dwellings occupied (column 2) and interview status (column 4).

- Count the number of listed dwellings in Q14a column 1. **Note** that where a dwelling has more than one household, it is listed as much as the number of households **BUT counted ONCE**. Enter the number in the box written ‘**Number of Dwellings Listed (Q14b)**
- Count the number of occupied dwellings in Q14a column 2. **Note** that where a dwelling has more than one household, it is listed as much as the number of households **BUT counted ONCE**. Again remember that if at least one of the households is occupied, the dwelling is considered occupied and counted as such. Enter the number in a box written “**Number of Occupied dwellings**” (Q14c).

## Step 4: Locating the Class in which the Number for Selection Falls and Selection Process

You will be provided with a table of selection numbers, which will be used for your sample selection. Note that the maximum number of selected holders is fixed at **20** for every selected block unless such a block has less than **20** holders. This of course excludes the cattle holders.

- Subtract the total number of cattle holders (Q12B) from total number of holders (Q12A) and enter the difference into the box marked “number for selection” (Q13A).
- From the selection table, locate the class in which the number for selection falls. This will be the number corresponding to N (Listed Agricultural Holders) under “Listed Agricultural Holdings Per Enumeration Area”. This will **only** apply to number for selection of **21**

holders or more. If this number is **20** or less, it will be regarded as a "Take All".

### **Step 5: Selection Process**

- Once the class in which the number for selection is located, identify the sampling interval (SI) and the random start (RS). The class, random start and the sampling interval should then be written in Q11. Note that the theoretical sample size (n) will always be constant (in this case is **20**).
  - As an example, if you have a class of 21 holders, from the selection table, locate the number (21) under "Listed Agricultural Holdings Per Enumeration Area (Block) and this will correspond to N (Listed Agric. Holders).
  - Below the class of 21 holders are selection numbers, which constitute your sample. According to this illustration, the random start (RS) is **1** and the sampling interval (SI) is **2**. The first number to be selected is one (1), the second will be three (3), the third will be five (5), the fourth will be six (6) and so on until the 20th holder is selected, which is number twenty (20).
- Note that the selection should be based on the number of identified agricultural holdings and these should be numbered sequentially. This of course excludes cattle holders.
- At the end of the selection, you should have 20 selected holders. If you have more or less than 20, it means the selection procedure was not correctly followed and has to be checked.

**Note:** Supervisors should use a green pen to circle all the selected holders in column 11a.

**Step 6:** Double check all work done to identify any wrong selections before enumeration takes place.

### **Step 7: Completing Form I Summary Questions (Box-Form continuation, Q12a – Q12b And Q13a- Q13e)**

Once the selection is completed and have double checked your work, complete the summary information in the front page of form I in the first part:

- Count the number of all completed forms in a block and record the number of forms under 'Total Number of Forms' (Form continuation).

- Assign all the forms or parts numbers so that Q12 can be entered with ease. For each form this should be written under “This page is part 1 of N (where N is the total number of all forms).
- Sum up all entries in Q14d for all the forms and enter the total in **Q12a** (Total Number of Holders).
- Sum up all entries in Q14e for all the forms and enter the total in **Q12b** (Total Number of cattle Holders).
- Subtract Q12b from Q12a to get number for selection (**Q13a**).
- Add up all the selected holders in column 11a (1s surrounded by a circle) for all the forms and write the number in **Q13b** (Number of selected Holders).
- Add up entries in Q12a and Q13a and write the number in **Q13c** (Total sample of Holders).
- Sum up all entries in Q14b for all the forms and enter the total in **Q13d** (Total Number of Listed Dwellings).
- Sum up all entries in Q14c for all the forms and enter the total in **Q13e** (Total Number of occupied Dwellings).

## **CHAPTER 8: FORM II QUESTIONNAIRE**

### **FORM II: TRADITIONAL FARMERS – SECOND VISIT**

Form II is used to capture information from holders selected from Form I. There are five sections in this form and information captured includes: -

- 1. Section I: Identification**, which should be the same as that of Form I.
- 2. Section II: Particulars Of The Holding**, which is in two parts: -
  - Household Schedule, which deals with demographic characteristics of members of the holding such as sex, age, citizenship, education, occupation and industry.
  - The other part deals with information on the operation of the holding, whether operated by holders individually and living with the holding or elsewhere, or operated by two or more persons within the holding or elsewhere, as well as whether the holding has any other economic activities undertaken for economic gain.

3. **Section III: Particulars Of The Holder**, which deals with information on the holder such as sex, age, marital status and occupation.
4. **Section IV: All Respondents Even If They Do Not Own A Piece Of Land**, which deals with crop and fallow fields operations, sources of seeds, draught power, farm implements, methods of planting, fencing status as well as fencing materials.
5. **Section V: Land Measurement**, which deals with fields' measurements and area calculation

## Section I: Identification

Supervisors are expected to fill in identification information for questions 1 to 6. This information will be available in Form I front page and in section II question 14a columns 1, 3 & 10 in that order in the same questionnaire.

### Question 8. Name Of Respondent:

Write down the name of the respondent in full. Ask the most popular but real names that the respondent is known by. In cases of nicknames, make sure that the real name is also identified and written down. Where the respondent is the same as the holder, write "SAME" in the space provided.

### Question 9. Is The Respondent The: -

1	Holder	1
2	Spouse of holder	2
3	Son of holder	3
4	Daughter of holder	4
5	Other relatives of holder	5
6	Not Related	6

You are encouraged to establish the relationship of the respondent to the holder and circle the appropriate code. This question should have only one answer.

**Question 10. Enumerator's Visit Log:** Write the date and time at which you visited the holder, if more than two visits have been made please put both dates and time. We do not need oral explanations about the number of visits' dates and time of visits. Every visit should be indicated. Ensure that, if land measurement is not yet done, it is recorded as "**callback**". **Note** that the time should be written after the completion of the interview.

**Question 11. Interview Status:** Indicate the status of the interview by ticking the appropriate box that is state whether the interview is,

1. Completed
2. Not completed
3. Vacant
4. Refusal
5. Not At Home

This should be done so that the office could know and be aware of the response rate.

**Name of Enumerator, Signature and Date:** Enumerators are required to write their names and dates, as well as placing their signatures on the questionnaire upon completion of the interview. Print your names or initials and your surnames in capital letters.

**Name of Supervisor, Signature and Date:** Supervisors will also write down their names, their signatures and the dates on which the questionnaire was checked and passed. Supervisors will review questionnaires while they are still within the block before putting down their signatures so that any queries are addressed while the respondent is within reach. This exercise should be done without fail whenever possible. If the supervisor sees a mistake or an entry that looks suspicious, he\she supervisor must rule a line over the entry and write below or above the line so that the old entry can be examined.

## **Section II: PARTICULARS OF THE HOLDING**

### **Question 12b Household Schedule.**

The Household Schedule is divided into three parts:

- **Part I – All Persons:** Consists of columns 1 to 6, which requires information on every person in the household who spent the night with the household. The information includes; relationship of everyone who spent the night with the household to head of household, gender, age and citizenship.
- **Part II – Persons Aged 2 Years + (School Attendance):** Consists of column 7, which requires information on school attendance for persons aged 2 years and above.
- **Part III – All Persons Aged 10 Years and Over:** Consists of columns 8 to 15, which seeks to establish information on training (columns 8 to 10) and economic activity (columns 11 to 15).

## Completing the Household Schedule

The questions within and between the three parts are related and hence expect a logical consistency of answers. **Note** that a holding can be interviewed even if there are no persons who usually stay with the household. Use the following guidelines to complete the schedule:

- Ask for the head of household or a senior person if the “usual” head is not available.
- Work steadily and systematically through the questionnaire and make sure you follow the connections between columns before putting down the answer.
- For each name recorded complete parts one and two. While taking into account the skips in some columns, move **across** the page one person at a time to complete part three, for both training and economic activity (that is columns 8 to 15).

### Part I – All Persons:

#### **Column 2: What Are the Names of All persons who usually stay within This Household? (i.e. during this agricultural season)**

List the names of all persons who usually stay within the household, including new born babies and old persons. It should be clear that all persons captured in this column are only those who spend most of their time staying in that particular household. Remember to write the name of the head of the household first followed by the spouse, then first child etc.

#### **Question 12b, Column 3: Relationship: What is ...'s Relationship to Head of Household?**

Example: -      00. Head of household                      02. Son/Daughter  
                         01. Spouse/Partner                              03. Child in-law

Record what the respondent tells you and not what you think.

The respondent may indicate that someone is the household head's spouse even if the man and woman are not legally married. They may be living together without having gone through any form of marriage ceremony, whether tribal, civil, religious or other. Nevertheless, if the respondent indicates that someone is the spouse of the head of household, you should enter code 1, even if you were told in Question 17 that the two individuals are “living together”. A person may effectively be the spouse, in terms of the role that

person plays in the household, even though, legally that person is not married to the head of the household.

### **Question 12, Column 4: Sex**

Enter the appropriate one-digit code in the provided space under column 4 as follows: [1. Male                      2. Female]

Usually a person's sex will be obvious, but be careful to get the sex of young children right. Please do not guess - ASK!

Before going on to complete column 5, make sure that you have written down the names and the correct relationship and sex codes for EVERY PERSON who usually stay with the household.

### **Question 12, Column 5: AGE.**

#### **How old is so and so in complete years?**

This is one of the most important questions in the questionnaire. It is also one that is often difficult to answer correctly especially if it is asked an elderly person. You should take particular care with it. You should record the age of a person in completed years, that is to say as of last birthday.

A person aged twenty-six years and four months should be recorded as "26". Similarly, a person aged twenty-six years and 11 months should be recorded as "26". A child aged under one year should be recorded as "00" even when he or she is 11 months old. For persons aged 98 years and over, enter 98. A person aged 98 will therefore be coded 98 and so will a person aged 99 or 104. The code 99 is for "age not known" and is to be used only when you cannot possibly estimate a person's age, even using the techniques described below.

Some people may not know their ages. When this happens, ask first for the year in which the person was born, then look up the age in the Village or Country List and Botswana Events Calendar. If the year of birth is not known you should try to find out the age by using the Botswana Events Calendar. Ask how old the person was at the time of some known event. Check the answer by relating it to some other event the person can remember well that belongs to the district in which the person was born.

The events listed in the Botswana Events calendar are arranged alphabetically by District. Corresponding to each event you will find listed the year in which the event occurred and the number of years ago the event occurred. From this information you can calculate or estimate the person's age.

If you already know the age of another person in the household, you may find it helpful to ask if the person is older or younger and by how many years. If there is no other way, you may have to estimate the person's age by looking at him or her (if present). Other documents such as Birth Certificates, Clinic Cards, Passports or Omang Cards could help you in accurately establishing ages. Suggest to the respondents that they might refer to such documents. They might even show you these documents, but do not demand to see them.

When you have made the best estimate you can, you should check whether it is compatible with the person's position in the family or in the household. For example, a child should be at least 12 years younger than his natural mother, of course, if the mother is not the natural mother, then the age difference will be irrelevant. Do not accept answers that are obviously wrong. Try and get accurate answers.

**Question 12 Column 6 Citizenship: What is the country of ...'s citizenship?**

This column deals with citizenship of all persons in the household irrespective of their age. Enter the appropriate three digit code in this column after establishing one's citizenship according to the list of country codes listed. If for example one's country citizenship is that of Botswana, the code for this column will be 001, if its Angola will be 002 and so forth considering the list.

**EDUCATION**

**Question 12, COLUMN 7: SCHOOL ATTENDANCE.  
What is the level or grade that..... has completed?**

This column deals with the standard of education completed at pre-school level, primary school level, secondary school level and/or non-formal. It also covers those persons who have never attended school. Enter the actual grade or level the person has completed as per two digit codes below:

For Pre-school :-

If year 1 not completed enter 00

If year 1 completed enter 01

If year 2 completed enter 02

If years at pre-school not known enter 09

**For Primary school :-**

If standard 1 not completed enter 10

If standard 1 completed enter 11

If standard 2 completed enter 12

*If standard 3 completed enter 13*

**For Secondary school :-**

If form 1 completed enter 21

If form 2 completed enter 22

If form 3 completed enter 23

**For Non- formal :-**

If Prima 1 not completed enter 60

If Prima 1 completed enter 61

If Prima 2 completed enter 62

If Prima 3 completed enter 63

NB: These codes show grades or level of education completed not those currently under study. For example, if someone is currently in form 1, she/he will be coded 17 meaning she/he has completed standard 7. Those who are currently doing form 3 will be coded 22 not 23 as they have not yet completed form 3 and for those who completed sub A or sub B will be code 11. If someone has completed form 3 but failed the examination, she/he will be coded 23 as having completed form 3. All these codes for different education levels are given at the bottom page of the household schedule for reference. Skip column 7 and ask column 8 if one has never attended school.

**Question 12, COLUMN 8: TRAINING: Has so and so attended any type of training for at least three months?**

In this column you are required to establish whether one has attended any type of training and the duration of the training should be at least three months. Enter the appropriate one digit code as indicated in the column, 1 for **No** training done, skip to column 11. If the code is 2 or 3 for on going training or for completed training, go on and ask column 9 and 10 (level and subject of training).

**Question 12, COLUMN 9: Level obtained or to be obtained.**

This column seeks to establish the level of training obtained or to be obtained. The codes for training levels are given at the bottom of the page (code 31 to 47). Establish the level and enter the appropriate code. If one has obtained a University Diploma, enter code 43 and if a Vocational Certificate is obtained enter code 33 following the list provided.

**Question 12, COLUMN 10: Subject of training.**

The column deals with the subject of training in terms of majoring or specialisation, eg Certificate in Statistics, Diploma in Agriculture, Degree in Economics etc. If someone has obtained a Degree in Statistics, it means that the level of his/her training is Degree at col. 9 and the subject at col. 10 is Statistics. Please note that there has to be a consistency between column 7 to column 10 in terms of level of formal education completed, level of

training and the subject of training. For example, one would not expect someone with a standard seven code 17 at col. 7, to have a University Certificate code 35 at col. 9 and the subject of his/her training being Statistics at col. 10. If this becomes the case please probe.

**Question 12, Column 11: Economic activity)**

**What has ..... Been doing mainly during this season? (All persons 10 years and above) col. 11.**

This part identifies persons who are economically active and are aged 10 years and above. These economically active persons are those persons who, during a specific reference period supply labour for the production of goods and services and also included under this category are the job seekers. Job seekers are regarded as economically active because they are always willing and available to work but the job market could not absorb them.

The column has three groups; those who did seasonal work, with payment or no payment, those who did non-seasonal work with payment or no payment and those who did not do any work during the specified period. If no work has been done, ascertain whether no work was done at one's lands or cattle post. Then if any work was done at the lands and is weeding, it therefore means that particular person has done some seasonal work and should be coded 1 if was paid or 2 if not paid. If one was looking after his/her own livestock for no payment, it means he/she did some non-seasonal work and should be coded 4. If this column has codes 1, 2, 3 or 4 skip column 12 and proceed with column 13, but if column 11 is 5 (no work done) proceed with column 12 and continue with the next person.

**Code 1 and 2 under seasonal.**

These two codes should be used for someone who did seasonal work for payment and for no payment respectively. Seasonal activities include activities such as Ploughing, weeding, harvesting, phane gathering, etc. They are considered seasonal because they are only done during certain seasons of the year.

**Code 3 and 4 under non-seasonal.**

This refers to economic activity or normal work done all year round irrespective of whatever the season. Just like the seasonal work, this activity could also be done for a payment or for no payment and should be coded 3 payment and 4 for non-payment.

**Code 5 under no work.**

There are some activities which respondents may not regard as work. In order to minimise on the under enumeration of the economically active, there is need for further probing on those persons who responded as having done no work during the Agricultural season. Try at all costs to establish whether they

have not done any work at their own lands or cattle posts. In the event they report that they have done some work, code accordingly.

### **Question 12, COLUMN 12.**

#### **Then what did....do during this Agricultural season?**

This relates to all persons aged 10 years and above who were reported as having done no work at column 11, that is they were coded 5 at column 11. These are persons who were neither self-employed nor worked for any kind of payment during the agricultural season.

**Code 1 Actively seeking work.**

This category refers to all those who are looking for employment, either through applications or are most of the time out physically looking for work. Anyone who stays at home not making any effort of finding a job is not actively seeking work even though he/she considers himself/herself as actively seeking work.

**Code 2 Housework.**

Remember that housework is not restricted to females only, even males could be responsible for daily housework within the household. Males are also capable of undertaking cores such as cleaning of the house or premises, preparing food for the family or generally caring for other members of the household. It should be noted that domestic workers/servants work for payment and are classified as economically active.

**Code 3 Students.**

A student here for economic activity refers to any person aged 10 years and above, who as a result of attending school most of the day , does not work. Students on vacation should be coded under this category because they are at school for most part of the year.

**Code 4 Retired.**

Retired persons are those who as a result of old age, ill health or other reason, could not do any type of work. It should be noted that anyone who has retired from his/her permanent job, and is currently working somewhere (on contract basis or any paying job) should not fall under this category because he/she is economically active.

**Code 5 Sick.**

This is a person or persons who are able to work but could not work because of prolonged illness or poor health conditions. These are not necessarily retired persons but people with mostly chronic illnesses which impedes their working capabilities.

Other (specify): If the person was doing something other than the possibilities listed above, then write in what the person was doing in the space just below in column 12

If you need more space, use the "comments box". If a person says he or she was doing "nothing" during this agricultural season, probe to find out what the person was really doing.

### **Question 12, Column 13.**

#### **What was....working as during this Agricultural season?**

This column is meant to capture people who are employed and are paid in cash, paid in-kind, are self-employed with no employees, self-employed with employees, unpaid family helpers and those who worked at their own lands and cattle-posts.

#### **Code 1 Employee paid cash.**

These are employees who work for public or private employers and receive cash as a means of payment. An employee who is paid both in cash and in-kind should fall under this category since cash takes precedence over any form of payment. For example a maid who eats with his employer and receiving cash payment at the same time is regarded as being paid in cash.

#### **Code 2 Employee paid in kind.**

The employees here work for public or private employers and receive food, clothing, accommodation etc, as a means of payment instead of cash payment.

#### **Code 3 Self-employed with no employees.**

This is whereby one is running his/her own business without the help of any employee or employees. Examples of such businesses may include tuck shops, running a taxi, basket weaving, phone shops et.

#### **Code 4 Self-employed with an employee or employees.**

As compared to the self-employed with no employees, this category also run any form of business with assistance of one or more employees. The employees here could be paid either in cash or in-kind.

#### **Code 5 Unpaid family helper.**

Family helpers here refers to persons working in an economic enterprise operated by a family and these persons should not be confused with those doing housework at column 12. An example of these, are persons helping in family business without any payment attached.

### **Code 6 Working at own lands or cattle posts.**

This category captures mostly traditional farmers and their family members whose main reason for farming is not specifically for business purposes even if part of the produce is sold.

### **Question 12, Column 14: OCCUPATION**

#### **What type of work did so and so do?**

A person's occupation depends on the tasks and duties which the person performs. Remember that if a person worked at all during this agricultural season, whether for payment in cash, in kind, for both or for no payment, and for however short a period, then you should try to find out what kind of work the person did. You should try to get the respondent to give both a job title and a two or a three word description of the tasks performed. For example, if a person states that he or she is a mechanic; ask him or her he or she repairs. You should record his or her response in the space provided under column 14 as follows: "mechanic, fixes cars" or "electronic technician, fixes radios". Use the comments box if you need more space. If a person moved from job to job you should enter the most recent occupation even if it only lasted for a day or two. This may happen with people who are casual labourers.

If a person has more than one occupation, record the one on which he or she spends the most time. However, if someone has a temporary job during a vacation (school holidays or other), but has a permanent job, it is his or her permanent occupation that should be described.

Probing for Better Occupational Information: You will usually have to probe the respondent to get good information about a person's occupation. For example, people who make things as (bread, clothing, pottery, wood objects, tools, beer, food products, furniture, bricks, and so forth), should be asked how they make them. It is important to find out whether they mostly use their hands or hand held tools, or whether they mostly produce these goods by operating machinery. A person who brews beer at home using traditional techniques belongs to a different occupational category than a person who operates a machine which ferments the grains used in making beer, say at Kgalagadi Breweries or at Botswana Breweries.

*You should also probe when the information provided by the respondent does not seem reasonable. For example, if a person has only completed Form 4, it seems unlikely that he or she could be an auditor or an engineer. If you probe, you may discover that the person is actually an accounting clerk or a technician.*

## Question 12, Column 15 INDUSTRIES.

### What was the main product, service or activity of so and so 's place of work?

The industry identifies the main kind of product being produced or the main service provided by the establishment or the work unit in which the individual works. It is important to understand the difference between industry and occupation. An occupation summarises the tasks performed by an individual who is working. The industry has more to do with the products or services, or main functions or activities, of the workplace. For example, a woman may be an Accounts Clerk who is employed by a Dairy Farmer. Her occupation at column 14 will be "Accounts Clerk" and the industry at column 15 will be dairy "Farming".

If the same person was employed by a mine, the occupation would still be "Accounts Clerk" but the industry would be "Mining". A man working in the same mine might be a Mine Sampler, his occupation would be "Mine Sampler" or "Miner", but he also belongs to the Mining industry. Clearly, an industry may include a number of different occupations, and the same occupation may be found in many different industries.

If the respondent can give you the name of the company for which an individual works or the name of a self-employed person's business, then the Agric Statistics Office coding and editing staff will often be able to identify the industry from the company name. However, you should still try to find out what goods are produced by the company or what type of services are provide by the company or individual. With names such as Botswana Power Cooperation and Botswana Telecommunications it is easy to identify the industry but with names like Lefika & sons or Mogonono Plant it becomes impossible for one to identify the industry. If necessary, record both the name of the company and the kind of goods and services the company produces or provides in the comment box.

Probing for Better Industry Information: You will usually have to probe the respondent to get good information about the industry in which a person works. Some general tips for probing are given below.

General Tips: First ask the respondent what the name of the company or business is. You should then ask the respondent what kind of goods are being produced or what type of services are being provided, especially if the name of the business is not known, or if the individual is self-employed, working on a farm, lands or cattle post, or working for another individual or for a household rather than for a company or business. If you need more space use the comments box; see below for some examples of goods produced.

If the business or workplace does not produce goods, ask what kinds of services are provided; see below for some examples of services provided.

When recording the response, be sure to indicate whether the business is making or selling goods; that is, write something like “makes beer” or “sells beer”, not just “beer”.

If the above approaches do not work, ask the respondent what type of business the person works in and, if necessary, read out some of the examples listed. A complete list of examples of industry and occupation groups is provided in the manual.

1. Examples of Goods Produced: bread, traditional beer, biltong, textiles, tinned meat, glass, bricks, tiles, metal tools, shoes, leather bags, rope, books, baskets, clothing, fat cakes, brooms, newspapers, plastic pipes, Kgotla chairs, boilers, mats, pots, wooden spoons, plastic pipes, vaccines, maize flour, milk, soap.

2. Examples of Services Provided: repairing cars, repairing shoes, repairing watches, cleaning houses, guarding houses, taking care of children, typing, hawking goods, driving a taxi, cutting and styling hair, treating illnesses, teaching, selling property, selling airline tickets, renting videos, dry-cleaning clothes, selling beer, running a restaurant, running a shop.

3. Examples of Types of Businesses or Economic Activities: building houses, building roads, wholesale trade, general retailer, hotel, restaurant, butchery, petrol station, airline, railway, selling cars, transporting goods, bank, insurance, real estate, prospecting, architectural services, church, school, hospital, clinic, local government, brigades, traditional farming, fishing, hunting, blacksmith, traditional healing, performing at night-clubs, travel agency, employers' organisation, labour union, co-operative, electrical construction, law firm, accounting firm, market stall, dairy farming, commercial farming. Refer to a list of industrial classification for industry and occupation on the list provided.

**SPECIFIC EXAMPLES OF HOW TO PROBE FOR BETTER INDUSTRY RESPONSES AND SUGGESTED PROBING QUESTIONS.**

**FACTORY:** *What is the name of the factory? What kinds of goods does the factory make?*

**MANUFACTURING:** What is the name of the company? What kinds of goods does the company manufacture?

**CONSTRUCTION:** What is the name of the company? What does the company build? Houses, roads, buildings, electrical plant, dams.

**GOVERNMENT:** Does SO AND SO work for Central Government or local Government? In which department or ministry?

**TRANSPORT:** Does SO AND SO work for a transport company? If so, what is the name of the company? What kind of transport does the company provide? Rail, Air, Truck, mini bus, taxi. If SO AND SO does not work for a company, what kind of transport does...provide. Driving a taxi, truck, tractor, etc.?

**EDUCATION:** Is SO AND SO a teacher? If so, at what level does SO AND SO teach? If not, what does SO AND SO do in the school?

**BUSINESS:** What is the name of the business? What kind of goods does the business provide? What kind of services does the business provide?

**MINING:** In which mine does SO AND SO work? What kind of mine is it? Diamond, copper, nickel, coal, soda ash, salt.

**FARMING:** What is produced on the farm? Are the crops or livestock sold for profit or used mostly for consumption by the family?

**DOMESTIC:** *What is SO AND SO doing for the private household or individual?*

**PRIVATE:** Gardening, Minding Children, Cleaning house, Cooking, Working as a night watchman.

**FAMILY:** Sewing, Driving a Taxi, Threshing, Stamping Grains, etc. What is SO AND SO doing to help the household or Individual in this business activity?

**CATTLEPOST:** What is SO AND SO doing at the cattle post, lands, or farm?

**LANDS:** *Do not assume that the activity is farming.*

**FARM:** If the person is making baskets, for example, the economic activity may be "making baskets".

**SELF:** Does SO AND SO have a company or shop? What is the name of the company or shop? What kind of shop? What kinds of goods do SO AND SO Make or sell? What services does SO AND SO provide?

**BREAD, FAT CAKES, BEER:** Did So and. So make or sell this product? If SO AND SO sold the product, was it sold in a shop? If not, where was it sold?

**CLOTHES:** If clothing or manufactured goods are reported as the industry, ask similar questions as stated above.

**POLES:** Did SO AND SO sell this item? Did SO AND SO gather, cut, collect or stump this item? For whom did SO AND SO work?

**WOOD:** What was the item used for, and by whom was this item used? Did SO AND SO grow the item?

**THATCH:** Whenever the respondent mentions an agricultural product or other raw materials such as wood, thatch, water, etc., find out whether the person was growing, gathering, cutting or otherwise processing the item.

### **SPECIFIC EXAMPLES OF HOW TO PROBE FOR BETTER OCCUPATIONAL INFORMATION.**

**BUILDER:** *Does SO AND SO build using mostly traditional materials and techniques?*

**BREWER:** Where and how does SO AND SO make beer? At home or elsewhere using traditional techniques, in a commercial brewery using machines.

**CARPENTER:** What kinds of things does SO AND SO make or build? Furniture, doors and window frames, wood frames for houses, etc.

**CLEANER:** What does SO AND SO clean? Streets, houses, offices, shoes, clothes.

**CLERK:** Does SO AND SO work in an office mostly or does SO AND SO mostly deal with customers? What kind of clerk is SO AND SO? Stock, Production, Accounting bookkeeping, statistical, finance, transport, library, filing, mail sorting, coding .etc.

**DRIVER:** What does SO AND SO drive? Car, Taxi, Bus, Van, Mini Bus, Lorry, Truck, Tractor, Caterpillar, Excavator, Grader, Scrapper, Compactor.

**ELECTRICIAN:** What kind of things does SO AND SO repair? Cars, electrical wires in buildings, electrical power lines, electrical equipment, electrical appliances or electrical machinery.

**ENGINEER:** Does SO AND SO have a college degree in engineering? What kind of engineer is SO AND SO? Chemical, civil, construction, electrical, electronic, telecommunications, mechanical, mining etc.

**FARMER:** Does SO AND SO produce mostly animals or crops? What kind of animals does SO AND SO raise? Livestock, poultry, other. Does SO AND SO raise the animals or grow the crops mostly to sell them or for family consumption.

**FOREMAN:** What kind of workers does SO AND SO supervise? Does SO AND SO help those he or she supervises to do the work?

**SUPERVISOR:** *If so, what kind of work is it?*

**GARDENER:** In what kind of garden does SO AND SO work? Private home, commercial farm, commercial nursery .etc. Are the things grown in the garden mostly consumed by the household or sold?

**LABOURER:** Where does SO AND SO work as a labourer? Construction site, mine, factory, shop, shipping company, rail road, airport, farm, forest etc.

**MACHINE OPERATOR:** *What kind of machine does so and So operate?*

**MANAGER:** In what kind of organisation is SO AND SO a manager? Government, humanitarian organisation, hospital, retail shop, company, factory, bank, etc. Does SO AND SO manage a whole company or a department in the company? What department does SO AND SO manage? Production, operations, etc.

**MECHANIC:** What does SO AND SO fix? Cars, refrigerator, air conditioner, other machines or other equipment.

**PAINTER:** What does SO AND SO paint? Buildings, ceramics, artistic paintings, wood, cars, metal, interior walls.

**SALES PERSON:** What does SO AND SO sell? Where does SO AND SO sell it?. Shop, kiosk, market, street, from home.

**SCIENTIST:** What kind of scientist is SO AND SO? Chemist, biologist, geologist, meteorologist, pharmacist, botanist, zoologist, pathologist, agronomist, etc.

**SECURITY:** By whom is SO AND SO employed?

**GUARD:** Security firm, company, government, office, private individual, shop.

**SELLER:** What does SO AND SO sell? Where does SO AND SO sell? Shop, kiosk, market stall, street, from home.

**TEACHER:** At what level does SO AND SO teach? Pre-primary, primary, secondary, college, university, brigades, trade school, commercial school, computer academy.

**TECHNICIAN:** What kind of technician is SO AND SO? Health, engineering, physical, science, life science, computer, agronomy, forestry, veterinary.

## **INDUSTRIAL CLASSIFICATION.**

### **AGRICULTURE, FISHING, HUNTING & FORESTRY.**

Traditional Farming.  
Other Farming.  
Agricultural Services.  
Forestry.  
Fishing.  
Hunting.

### **MINING & QUARRYING.**

Diamonds, Copper, Nickel.  
Coal, Soda Ash, Salt.  
Quarrying & Other Mining.

### **MANUFACTURING.**

Meat & Meat Products.  
Dairy & Other Agro-Based Products.  
Beverages.  
Bakery Products.  
Textiles.  
Tanning & Leather Products.  
Chemical & Rubber Products.  
Wood & wooden Products.  
Paper & Paper Products.  
Metal Products.  
Other manufactured products.

### **ELECTRICITY, GAS & WATER SUPPLY.**

Water Supply.  
Electricity Generation & Supply.  
Gas.  
Construction.

### **CONSTRUCTION OF HOUSES & BUILDINGS.**

Construction of Roads  
Electrical Construction  
Construction of Dams & Pipelines  
Other Construction & Building Work.

### **TRANSPORT STORAGE & COMMUNICATION.**

Road, Railway & Air Transport.  
Communication Services Allied to Transport.  
Taxies & Mini Buses.

### **FINANCE, INSURANCE REAL ESTATE & SERVICES.**

Financial institutions & Insurance Brokers.  
Real Estate & Business Services.  
Engineering, Architectural & Other  
Technical Services, Ownership of Dwellings.

**COMMUNITY, SOCIAL, HOUSEHOLD & PERSONAL SERVICES.**

Recreational Services

repair Services.

Business, Professional & Labour Organisations.

Laundry, Dry Cleaning & .Hair Dressing Services.

Hospitals & Other Medical Services.

Education Services.

Religious Organisations.

Domestic Services.

Other Community, Social;, Household & Personal Services.

**GOVERNMENT & FOREIGN MISSIONS.**

Central Government.

Local Government.

Foreign Missions & Donor Organisations.

**WHOLESALE & RETAIL TRADE.**

Wholesale Trade, General Retailers.

Hotels, Restaurants, Cafes & Butcheries.

Petrol Stations & Motor Vehicle Dealers.

Hawkers, Cattle Dealers & Speculators.

Bottle Stores & Bars.

Commission Agents.

**SECTION II : PARTICULARS OF THE HOLDING.**

**Question 13 Is this holding operated by:**

- |                                               |   |
|-----------------------------------------------|---|
| 1. An individual living in this holding       | 1 |
| 2. An individual living elsewhere             | 2 |
| 3. Two or more persons living in this holding | 3 |
| 4. Two or more individuals living elsewhere   | 4 |
| 5. Other (specify)                            | 5 |

Establish as to how the holding is operated and circle the appropriate code.

**Question 14a: What other economic activities that are undertaken in this holding for commercial gain?**

This question tries to establish other businesses (for commercial gain) that are undertaken in the holding apart from what made him/her a holder? There are twenty one (21) possible choices of activities are listed in the Questionnaire. Probe first to see if the respondent comes up with some of the Economic activities in the list. Read out the choices listed to the holder and circle the appropriate codes. There can be more than one answer for this question. Indicate all those given by the respondent.

**Question 14b. Of the ones indicated above, which do you regard as the main economic activity?**

If there is more than one choice at question 14a, establish from the respondent, one activity regarded as the main one and code appropriately in the box.

**Section III: PARTICULARS OF THE HOLDER.**

**Question 15: State the sex of the holder.**

**[ Male = 1 Female = 2]**

Circle the appropriate code for the gender of the Holder. That is, if Male circle code "1" and if Female circle code "2".

**Question 16. What is the age of the holder?**

The age of the holder should be given in complete years.

For example, a person aged twenty-six years and four months should be recorded as "26". Similarly, a person aged twenty-six years and ten months should be recorded as "26".

For persons aged 98 years and over, enter 98. The code 99 is for "age not known" and is to be used only when you cannot possibly estimate a person's age.

**Question 17. What is the marital status of the holder?**

Ask the respondent the marital status of the "Holder". This question may be misunderstood by the respondent to suggest otherwise, so be as tactful and as cautious as possible when asking this question. Enter the appropriate one-digit code in the shaded area.

1. **Never Married:** A person who has never gone through any type of formal or informal marriage (tribal, civil, religious or other) and does not consider that he or she is presently "living together" with anyone is to be coded as never married.

2. **Married:** A person should be regarded as married if he or she has been through any form of marriage ceremony, whether tribal, civil, religious or other form of relationship regarded as marriage by the respondent and is still married. As long as the respondent is old and declares himself or herself married, do not ask for the type of marriage.

3. **Living Together:** A man and a woman may "live together" like husband and wife (even if they do not stay together in the same locality) without having gone through any form of marriage ceremony.

4. **Separated:** A person who has been formally married should be regarded as separated if he or she is living apart from his or her spouse by Court order, by mutual or unilateral decision.

4. **Divorced:** A person should be regarded as divorced if his or her marriage has ended. If the person has remarried then he or she is to be coded 1, as married.

5. **Widowed:** This means that either the husband or the wife has died and the surviving partner has not remarried. If the surviving partner has remarried he or she is coded 1, as married.

**Note that the person cannot be “Never married or Single” if he/she has ever entered any formal marriage. He/she can either, be widowed, divorced or separated until he/she enters another formal marriage.**

**Question 18a. Is the holder a full-time farmer?**

[Yes = 1 No = 2]

A holder who spends most of his time on farming (either crop or livestock production) and based his/her livelihood solely on farming is referred to as a fulltime farmer. Probe as necessary and code accordingly. If the holder is not a fulltime farmer circle yes (2) and ask question 18b, about holders other occupation but if question 18a is yes (1) skip 18b.

**Question 18b. What is his/her other occupations?**

You are required to ask this question only when the response to question 18a is no, (holder is not a fulltime farmer). Write down the holder's occupation in the space provided. Remember that the occupation here should appear the same way as occupation in the household schedule column 14 because otherwise the definition for household schedule column 14 and question 18b is the same. Where the holder has more than one occupation, probe to find the one occupation that takes most of the holders time or the most rewarding.

**SECTION IV: ALL RESPONDENTS EVEN IF THEY DO NOT OWN LAND.**

**Question 19. Did you or any one in your household plant any crops during this season? (from October of the previous year to September of the current year)**

[Yes = 1 No = 2]

If the holder or any member of the household have any crops, circle 1 otherwise circle 2 and go to question 20 to establish whether there is any fallow land.

**Question 20. Do you or any member of your household have any land that is not ploughed/planted during this agricultural season**

[Yes = 1            No = 2 Go To Q20]

Circle the appropriate code. If code one is circled, go to question 21a and establish the reason for not ploughing as given by the respondent. If code '2' is circled go to question 21b provided in question 19, code '1' was circled otherwise if both question 19 and 20 are no, end the interview because the holding does not have any crops nor fallow land.

**Question 21a. What were the reasons for not ploughing/planting the fallow fields?**

If there is fallow field try to find reasons why the field was not planted. There will always be varying reasons for not ploughing. One reason could be that it is still too early to plough or plant but they still intend to plough or plant. In this case find out expected date of ploughing/planting because you will need to re-visit this person after he has ploughed/planted. Other reasons could be:-

1. Lack of rain
2. Lack of money
3. Lack of seeds
4. Lack of labour
5. Lack of draught power
6. Underground fire
7. Floods.
8. Lack of equipments/implements
9. Poor soil quality
10. Other (specify)

Circle all reasons for not ploughing/planting as given by the respondent and if there are reasons other than the ones listed, circle code 10 and specify the reasons.

**Question 21b. Is ploughing/planting taking place along molapo (River basin), on dry land or on both.**

Circle the appropriate code after establishing where ploughing/planting takes place. Code 1 for ploughing/planting taking place along molapo, code 2 for dry land and 3 when the ploughing/planting takes place on both molapo and dry land.

**Question 21c. Do you practice crop rotation?**

Yes = 1            No = 2

Circle the appropriate code after establishing if the holder practice crop rotation. Try to explain what crop rotation is and make sure the holder really understand what crop rotation is.

**Question 21d. What is the soil type of your arable land(s)?**

1. Loamy soil
2. Clay soil
3. Sandy soil

Circle the appropriate code to the type of soil found in those lands. You need to make it a point that the respondent understands the soil types. Where he/she does not understand explain the soil types in Setswana i.e. loamy soil is Mokata; clay soil is Seloko and sandy soil is Motlhaba.

**Question 22. LIST SEPARATELY BELOW ALL CROPS PLANTED, INCLUDING FALLOW FIELDS:**

- List separately all crops planted per field.
- Assign separate field numbers for each crop and crop mixtures.
- Specify the variety of each crop listed (as long as the respondent knows). If the respondent doesn't know the variety, write 'unknown'.
- Give the description or type of seed container used. It could be a basin, basket, a Coca-Cola bottle etc.
- State the unit of measurement of the seed containers described. Enter the correct code. Some measurements will need to be converted in order for them to suit the ones given. Unit of measurement for a particular seed container might be given in milligrams, another one in millilitres and hence the need for conversion.
- Give the size of container, e.g. 5 kg bag, 20 litre bucket, 2 litre basin for each seed type planted.

Give the number of units used. This refers to the number of containers ( in size form) given e.g 5 kg bag(s), 20 litre bucket etc. For example if about 10 bags (of size 5kg) have been used, the number needed would be 10.

Record the amount (quantity) of seed used for individual crop(s) in each field for this agricultural season in the space provided. State in terms of kilograms and litres where possible. Where it is not possible to state the unit of measurement put a dash and try to state size or weight. The quantity used is the number indicated under 'size of seed container' multiplied by number indicated under 'number of units used'

For crops reported as a crop mixture, make sure it is a true crop mixture. It is very possible two crops are grown in the same land area but they are not mixed. If only a few stocks of one crop are mixed in a field with another crop, we would not consider this as crop mixture.

**Question 23. What were the sources of your seeds indicated in Question 22?**

**SOURCE CODES:**

- |                                          |   |
|------------------------------------------|---|
| 1. Botswana Agricultural Marketing Board | 1 |
| 2. Drought Relief Programme              | 2 |
| 3. Co-operatives                         | 3 |
| 4. Trader                                | 4 |
| 5. Another farmer                        | 5 |
| 6. Previous year's harvest               | 6 |
| 7. Seed multiplication unit              | 7 |
| 8. ISPAAD                                | 8 |
| 9. Other (specify)                       | 9 |

Use the source codes to fill in the appropriate information for this question. Note that there could be more than one source code for a particular seed. If there is a source which is not on the list provided, circle other and specify the source.

**Question 24a. What was/were the draught power(s) used to plough the fields?**

- |                       |   |
|-----------------------|---|
| 1. Oxen only          | 1 |
| 2. Cows only          | 2 |
| 3. Both Oxen and Cows | 3 |
| 4. Donkeys            | 4 |
| 5. Tractor            | 5 |
| 6. Other (specify)    | 6 |

Circle the appropriate code for draft power used. If two or more different kinds were used, circle each code corresponding to the kind of draught power. Note that more than one code can be circled. Then for every draught power used, find out from the respondent the field number in which the particular draught power was used in. Then write the field number opposite the draught power used in the "field number box". Always refer to question 22 for the field numbers because the fields referred to in question 24 are the same to those in question 22.

**Question 24b. Who provided this/these draught power(s)?**

- |                        |   |
|------------------------|---|
| 1. Self/family         | 1 |
| 2. Borrowed            | 2 |
| 3. Self plus borrowed  | 3 |
| 4. Mafisa              | 4 |
| 5. Hired               | 5 |
| 6. ISPAAD              | 6 |
| 7. Other(Specify)_____ | 7 |

Circle the appropriate source code of draft power used, and if more than one was used, circle each code corresponding to the source of the draught power. For every category circled find out for which field number it was provided for and write the field number opposite the particular category.

**Question 24c. Who paid for this/these draught power?**

- |                              |   |
|------------------------------|---|
| 1. Self/Family               | 1 |
| 2. ISPAAD                    | 2 |
| 3. Both ISPAAD & Self/Family | 3 |
| 4. Other (specify)_____      | 4 |

Circle the appropriate code. Self is when a holder fully paid for the draught powers alone. ISPAAD is when a holder wholly used this program to pay for the draught powers. Both ISPAAD & Self refers to when a holder used the two options to finance the draught powers.

**Question 25. What implements were used to plough the fields?**

- |                         |   |
|-------------------------|---|
| 1. Hoe                  | 1 |
| 2. Single plough        | 2 |
| 3. Double plough        | 3 |
| 4. Other (Specify)_____ | 4 |

Circle the implement(s) used to plough the fields. If a combination of implements were used then circle each one of them since it is possible to use more than one implement. Also find out which implement was used to plough which field and specify the field numbers in the opposite box.

**Question 26. What methods were used to plant the seeds?**

- |                         |   |
|-------------------------|---|
| 1. Broadcasting         | 1 |
| 2. Row planting         | 2 |
| 3. Row planting by hand | 3 |
| 4. Other (Specify)_____ | 4 |

Circle the method(s) used to plant the seeds. If a combination of methods were used then circle each of the methods used. It is possible to use more than one method in different fields, so again find which method was used and for which particular field, then code as appropriate.

**Question 27. Are your fields fenced?**

Yes - all = 1      Yes - some = 2      No-none = 3.

Circle the appropriate code as per the respondent response.

- Yes all – means all land areas are entirely fenced if the person owns more than one land areas.
- Yes some – means some land areas are fenced if the person owns more than one land areas.
- No - None – means the land area/areas is/are not fenced.

Please note that, if “None are fenced” circle 3 and do not ask Question 28.

### **Question 28. What type of fencing material (s) has/ have been used?**

Ask if fields have been fenced and what kind of fencing has been used (Question 28). Circle the appropriate code i.e. bush, wire and poles, poles only and other (which need to be specified).

## **SECTION V: LAND MEASUREMENT**

### **5.1 GENERAL INFORMATION.**

The purpose of area measurement is to estimate the total area planted and the total “fallow” land (land not planted). The area measurement is to be done by measuring separately all fields operated by the respondent or members of his or her household. Area measurement will start after the completion of all other sections on the questionnaire.

#### ***PRE-SKETCHING.***

#### **NOTE: PLEASE REFER TO THE QUESTIONNAIRE.**

Before starting the land measurement, you should have listed the different fields in question 22 in the questionnaire, also include “fallow” fields.

Now go for area measurement for the fields. It is possible that the situation found when visiting the land areas is different from what was described in the. If the situation is different, make a note at the bottom of the page explaining the situation. Make the necessary changes before you make your field sketch.

#### **SKETCHING**

- Having determined the boundary of the land area and fields, then make a more detailed sketching.
- A separate sketching is not necessary if there is more than one field in a land area.
- If you have more than one land area or more than six fields, then you will need to use the additional pages.
- The sketch of each land area will contain all fields in their respective positions.

## **5.4. AREA MEASUREMENT**

Each field (ploughed, planted and fallow) is to be measured by Global Positioning System (GPS). Start from any corner of the field. The starting point is A and the next corner of the field will be B, C & D if it's a four (4) sided field.

Mark the starting point and end at the starting point. At the end retrieve and record the area and the perimeter. Training on the usage of GPS will be done during census training and each team will be given two GPSs.

## **FORM III: LIVESTOCK NUMBERS, CROPS HARVESTED AND PRODUCTION**

### **CHAPTER I, GENERAL INFORMATION**

#### **1. INTRODUCTION**

Form III deals with the final phase of the Agricultural Census. Form I provides us with a list of dwellings within selected blocks. From these dwellings you selected a sample of Farm Holders for Form II. Form II provides demographic and land information about farm holders. Form III constitutes the final phase of Traditional data collection on livestock and crop production, disposal of this year's crops, use of fertilisers, weeding and equipment, etc. In some cases you may find it necessary to make corrections to previous incorrectly reported data in Form II (if you are collecting information for the two forms at the time).

Keep your Agricultural Census Reference Manual with you at all times. You may need to refer to it for objectives of census, procedures and definitions.

#### **2. SAMPLE**

The sample for form III is the same farmers selected for form II. Therefore, you will need to re-visit all blocks that were visited previously, and interview the same holders who were selected for Form II. The names of holders whom you will interview will be written on Form III where completed blocks for Form I and Form II have already been sent to the office. During this agricultural census, it may happen that, for most Blocks, Phase I and Phase II (that is Form I, II and III) run concurrently. This happens when phase I was not completed at the time of Form III commencement. In such cases data for the three Forms will be collected concurrently. It is the supervisor's responsibility to write all the necessary information for both Forms II and III (i.e. after selecting the agricultural holders sample).

### **3. ENUMARATORS' PROCEDURE**

Follow the same procedures as in Phase I of this manual, that is, find the correct EA/block and holder;

Explain the reason for the re-interview or re-visit;

Remind the holder that you have earlier visited the dwelling asking for the data on area ploughed /planted, now you would like to have information on livestock and crop production. Be advised that this procedure applies when phase I and Phase II are not conducted simultaneously.

Where Forms I and II have been completed earlier, make sure that you verify with the respondent that you are interviewing the correct holder. Read out full names of the holder to the respondent and make any necessary corrections.

## **CHAPTER II: THE QUESTIONNAIRE**

### **SECTION I: IDENTIFICATION**

***THIS SECTION REFERS TO QUESTIONS 1-6 ON THE QUESTIONNAIRE.***

Information for questions 1-9a will be filled in by the office staff from form II questionnaires for all questionnaires that were received by the Office before the start of Phase II enumeration. Where Phase I and Phase II are run concurrently, you will have to transfer information from Form II face page (that is, questions 1-9) to Form III face page (questions 1-9a).

If someone other than the holder has responded during Form II at question 9, the name of that respondent should be entered in Form III question 9a as the previous respondent. Question 9b requires the name of the respondent who responds in Form III. It is possible that the two are the same. Write the name of the respondent in the box provided.

Question 9C, relationship to the holder.

1. Holder
2. Spouse of Holder
3. Son of Holder
4. Daughter of Holder
5. Other relative of Holder
6. Not Related

Circle the correct code. This question requires only one answer.

## Enumerator's Visit log

Write down the visit number, the date when that visit was made and time. If you do not have a watch, write down the approximate time of the visit. You should also write the remarks i.e. anything which will remind you what to do next in cases of call-backs. We do not need oral explanations.

**Note: Though the maximum call-backs/re-visits allowed is 3, they shouldn't necessarily be made on the same day.**

## Enumerators name, signature and date

The enumerator should write his/her full names in the box provided. You should only put in the date and signature in the boxes on your final visit, that is, after having reviewed your questionnaire.

## Supervisor's name signature and date

The supervisor should write his full names after reviewing the questionnaire. This review is to be completed before leaving the block. When reviewing the questionnaire, the supervisor **MUST never** erase a figure, but instead place a line through the answer and make the necessary corrections with the blue pen.

If there are any other comments to be made, the enumerator should write them in the comments box provided.

**INTERVIEW STATUS:** Indicate the status of the interview by way of ticking the appropriate box, that is state whether the interview is, 1. Completed, 2. Not Completed, 3. Vacant, 4. Refusal, 5. Not at home. This should be done so that the office could know and be aware of the response rate.

## SECTION II: LIVESTOCK

**Note: For all the parts of this section make sure the respondent is aware of the time period "during this Agricultural season" to avoid over count of livestock where applicable.**

### PART A: Cattle

11a. Does this holding own, raise, operate, or manage any cattle? (Include mafisa in)

Yes = 1 go to Q12a  
No = 2 go to Q11b

11b. Has this holding ever had any cattle during this agricultural season?

Yes = 1 go to Q13a

No = 2 go to Q22a

For questions 11a and 11b reference is also made to mafisa-in cattle in the holder's kraal. Circle the appropriate code. Make sure you read out the question in full. If code "1" is circled, proceed with the rest of this section as per instructions.

If code "2" is circled, then it is important to ask if during this agricultural season they had any cattle (Q11b). It is very possible someone had cattle, but the cattle died, were eaten or sold. In this case, you must ask questions 13 – 21b. If they had no cattle within the last 12 months, then go to part B of this section.

### **12a. TOTALS**

**How many of the following breeds (Tswana, Exotic and Crosses) do you have? (Include cattle owned by other members of this holding and Mafisa-in)**

These should be by breed.

Tswana breed
Crosses
Exotic breed
Totals

Classify all cattle by type of breed and make sure that you record the correct breed type as per the response given. Where possible probe as necessary to distinguish between Exotic breeds and Crosses. This census will concentrate only on three categories of breeds. That is, Tswana breed, Cross breeds, and Exotic breeds. Check the totals against each breed and the grand total as given by the respondent. This must be done before parting with the respondent so that mistakes could be corrected if there are any. Whereby the respondent cannot classify the cattle, ask for the totals and these should be by breed type.

### **General instructions to follow**

Make sure the respondent understands which cattle should be included. See the note on the questionnaire. Enter all answers in the boxes provided.

Know your definitions and make sure the respondent knows what you mean when you ask a question.

Ask questions in the order that they appear on the questionnaire.

It is the responsibility of the holder/respondent to give you the total number of his/her cattle. Do not add up the classified livestock to get the total number of cattle unless the holder doesn't know at all. In such cases, check the total number given by adding column total and also add the row totals and compare them. They should give the same answer which is the grand total. If there is any discrepancy ask the holder if he has omitted some animals or double counted some.

**12b. Breeding method used: What is the breeding method that you use amongst your Cattle?**

There are two types of breeding methods given, artificial insemination and Natural (Bull Service) and it is the responsibility of the holder to give you his/her method of breeding.

1. Artificial Insemination 2. Natural (Bull Service) 3. Both

Artificial insemination is whereby stored semen from selected bulls is inserted into cows to produce required type breed. Natural (Bull Service) is whereby a cow gets in contact with a bull to produce calves (one on one mating of a cow and a bull).

Circle 1 if the method used is Artificial Insemination, 2 if Natural (Bull Service) and 3 if both methods were used.

**12c. Why do you use this particular method?**

Ask for the reason for using the method, if there is more than one reason probe to find the most important reason and write it down in the space provided.

**13a. Cattle Sales: Have there been any sales?**

Yes = 1 No = 2

Circle the appropriate code if any sales have been made and if no you skip to Q13c.

**13b. How many cattle were sold or traded out during this agricultural season?**

All cattle sold to B.M.C directly, BMC agent, at auction, government Restocking, Another farmer, Trader, Butcher or feedlot should be included. There might be cattle exchanged for other commodities e.g. 1 cow for 6 goats etc. In such cases the value(s) of such good(s) /commodities and their description should be stated.

Ask the respondent the total amount of payment received and enter the amount in the code box provided. If some cattle were sold and the respondent cannot remember the total amount received, probe further

otherwise leave the amount section blank and make a note in the comment box. You should always remember that incomplete information is not very useful that's why you are encouraged to always probe for useful information. Complete the rest of the table as per instructions. Give the value(s) (in pula) and/or the value/description of goods received for cattle traded out. Numbers and values for bulls sold or traded should be recorded separately in their respective boxes.

**13c. Are you aware of the BMC Quota system of buying cattle?**

**Yes = 1      No= 2**

Circle the appropriate code as per the response given by the respondent. You have to be in a position to explain what quota system is, i.e. quota system is the numbers of cattle the BMC allow farmers to supply.

**13d. Are you satisfied with BMC quota system of buying cattle?**

Yes, if the farmer is satisfied, No, if the farmer is not satisfied and Never used, if the farmer has never used such.

**14a. Births: How many calves were born during this agricultural season through the following?**

a. Artificial insemination

b. Natural (Bull service)

**Insert the numbers for these by type of breeding method.**

Number of calves born through both methods should not be less than the number of calves in hand. The number of calves in hand refers to those calves that the holder has at the time of your visit. This should be equal or less than births minus calves' deaths and loses. Include those eradicated (Q18) if there are any.

**14b. Calves Deaths: How many calves died during this agricultural season?**

Include those which died from disease, parasites, accidents, killed by animals (predators) and natural causes. Do not include "still" births (calves born dead) in any of the above.

**14c. Causes of Deaths:**

If there are any deaths at 14b indicate the causes by inserting numbers in the appropriate box or boxes in the table, that is, indicate whether death was caused by diseases, parasites, predators or drought.

**14d. Calves Loses: How many calves were lost due to strays and theft during this Agricultural season?**

Be sure not to include calves already reported as having died at question 14b.

**15a Cattle Deaths: How many cattle, excluding calves, died during this agricultural season?**

Include those which died from disease, parasites, accidents, killed by animals (predators) and natural causes. If no deaths reported go to question 16.

**15b Causes of Deaths: Indicate the causes of deaths by inserting the numbers in the appropriate box or boxes and only if death was reported at question 15a.**

**16. Cattle Loses: How many cattle were lost due to strays and theft during this agricultural season? (excluding calves)**

Remember the reference period and be sure not to include cattle already reported as having died at question 15a.

**17. Home Consumption: How many cattle were slaughtered for your home consumption during this agricultural?**

Include all cattle slaughtered or killed for home consumption (eaten). Include those animals killed for marriage ceremonies, funerals etc. Exclude any cattle that died but were then eaten as these have to be included at 15a.

**18. Cattle Eradication: How many cattle including calves were eradicated/destroyed due to cattle disease outbreak during this agricultural season?**

These would include cattle killed by government to help control spreading of cattle diseases such as foot & mouth disease and others. Such cattle should not be reported at question 15a but as eradicated in this question (Q18).

**19 Given away: How many cattle were given away (including bogadi) during this agricultural season?**

Include all cattle given away not in exchange for anything. These may include gifts, payment of lobola, mafisa out, etc.

**20. Purchased or Obtained: How many cattle were purchased or obtained during this agricultural season?**

These may include cattle gifts brought in, mafisa-in, bogadi, cattle received through battering/exchanges. Sometimes bulls are obtained or gained or traded for other types of livestock. Give the number of cattle purchased and/or obtained and their value/description in the boxes provided. Numbers and values for bulls purchased or obtained should be recorded separately in their respective boxes.

**21a. Were any chemicals/drugs/vaccines used on your livestock during this agricultural season?**

Ask whether any drugs, vaccines, chemicals were used on cattle. These are the kind normally used to control diseases or parasites. If yes go to question 21b and ask for the name of disease or parasite the drug/chemical/vaccine was used to control.

**21b. Name the disease or parasite that chemicals/drugs/vaccines were used to control?**

These might be diseases such as Anthrax, Blackleg, Botulism, Brucellosis, Foot and mouth disease Lumpy Skin and others. Establish these and circle those given by the respondent. If anything other than the ones given is indicated, circle other and specify.

**NOTE:** Review your work after you have finished part A of this section. If there are any inconsistencies in some figures, probe as necessary and make corrections if possible before you start the next section.

**21c: Were any feeds used on your cattle during this Agricultural season?**

Yes = 1 No = 2

You need to find out if the holder used any animal feeds to supplement or feed his/her cattle.

**21d. What are the types of feeds that you use among your cattle?**

A list of the types of animal feeds is provided in the questionnaires and you can circle more than one code.

## **PART B: GOATS**

**NOTE:** The same instructions used in part A (cattle) of this section should be followed when answering parts B & C (Goats & Sheep) of the same section.

**22a. Does this holding own, raise, operate or manage any goats? (Include mafisa goats in your kraal)**

Yes = 1 go to question 23  
No = 2 go to question 22b

**22b. Has this holding ever had any goats during this agricultural season? (from October the previous year to September of the current agricultural season)**

Yes = 1 go to Question 24  
No = 2 go to part C of this section

This is the same type of question as for cattle - see Question 11a and 11b.

It is possible that the respondent did not have any goats during this agricultural season. So make sure you ask the question correctly and follow the instructions.

**23. Total: How many of the following breeds do you have?**

1. Tswana breed
2. Crosses
3. Exotic breed
4. Totals

Classify all goats by type of breed and make sure that you record the correct breed type as per the response given. Where possible probe as necessary to distinguish between pure breeds and crosses. There are only three types of breeds you will be looking at, which are Pure tswana breeds, all cross breeds, and all pure breeds which are not Tswana. Check the totals against each breed and the grand total as given by the respondent. This must be done before parting with the respondent so that mistakes could be corrected if there are any. Whereby the respondent cannot classify the goats, ask for the totals and these should be by breed type.

**24. Births: How many kids were born during this agricultural season?**

Record the total number of kids born in the boxes provided. Be sure of your reference period. Include those dead, in-hands and lost. Do not include "still born" kids. Births can be the same or larger than female goats in number because of twins. Note that kids born include those which died, lost and those in-hands.

**25a. Deaths: How many kids died during this agricultural season?**

If no deaths reported enter zero and go to question 26. Do not include "still born" kids but those died from diseases natural causes, killed by predators or other causes.

**25b. Causes of Deaths:** Insert the number of deaths under appropriate cause(s) of death such as diseases, parasites, accidents, predators, drought etc.

**26 Kids Lost: How many kids were lost due to strays and theft during this agricultural season? (Do not include kids already reported as dead).**

**27a. Goats Deaths: How many goats, excluding kids, died during this agricultural season?**

Include those that died from disease, parasites, and accidents or killed by animals or natural causes.

**27b. Causes of Deaths:**

Indicate cause(s) of death(s) by inserting the number of deaths under the appropriate cause(s).

**28. Goats Loses: How many goats were lost due to strays and thefts during this agricultural season?**

Do not include goats already reported as having died.

**29. Home consumption: How many goats were slaughtered for home consumption during this agricultural season?**

Include goats that were slaughtered for weddings, deaths ceremonies and all other ceremonies held during this agricultural season.

**30. Given away: How many goats were given away during this agricultural season?**

These may include gifts given out as either bogadi, mafisa out etc.

**31. Goats Sales: How many goats were sold or traded during this agricultural season?**

Include BMC, auctions, abattoirs, traders and other farmers. If no sales are reported, probe as necessary. Numbers and values for bucks sold or traded should be recorded separately in their respective boxes.

**Value:** What was the approximate amount you received from the sale of your goats during this agricultural season? If the respondent has sold or traded his

goats for a commodity but can not give an estimate of that commodity in pula, write down that commodity.

**32. Purchased or Obtained: How many goats were purchased or obtained during this agricultural season?**

Insert the number and value/description of goods/commodities exchanged for goats purchased or traded in the boxes provided. Numbers and values for bucks purchased or obtained should be recorded separately in their respective boxes.

**33a. Were any chemicals/drugs/vaccines used on your goats?**

Ask whether any drugs, vaccines, chemicals were used on goats. These are the kind normally used to control diseases or parasites. If yes go to question 33b and ask for the name of disease or parasite the drug/chemical/vaccine was used to control. If no, skip to question 33c.

**33b. Name the disease or parasite that chemicals/drugs/vaccines were used to control?**

These might be diseases such as Helminthiosis (Dibokwana), Pasteurelosis (Madi), Orff (Mokgomana), Heart Water (Metsi a pelo), Foot Rot (Tlhakwana) and others. Establish these and circle those given by the respondent. If anything other than the ones given is indicated, circle other and specify.

**33c. Were any feeds used on your goats during this agricultural season?**

If feeds were given, go on and ask question 33d about the types of feeds given but if no, go to part c (sheep).

**33d. What are the types feeds you use among your goats?**

Establish the types of feeds given to the goats. If for example moroko was given to the goats, circle 2.

## **PART C: SHEEP**

**NOTE: THE SAME PROCEDURES AND INSTRUCTIONS APPLIED AT PART B GOATS, ALSO APPLY FOR PART C (SHEEP QUESTION 34A TO 45D)**

**34a. Does this holding own, raise, operate or manage any sheep? (include Mafisa sheep in your kraal).**

Yes = 1 go to Q35  
No = 2 go to Q34b

You have to establish if the farm you are interviewing has or are managing sheep and this should include mafias if any in the kraal. Here probing has to be done so as to figure out if mafias have been covered.

**34b. Has this holding ever had any sheep during agricultural season?**

If yes you continue with question 35 and if No you need to skip to question 46 (Other livestock).

**35. Total: How many of the following breeds do you have? (include sheep owned by other members of this holding and Mafisa-in)**

1. Tswana breed
2. Crosses
3. Exotic breed
4. Totals

Classify all sheep by breed categories and make sure that you record the correct breed type as per the response given. Where possible probe as necessary to distinguish between pure breeds and crosses. During agricultural census, there are only three categories of breeds you will be looking at, which are Pure Tswana breeds, all cross breeds and Exotic/pure breeds which are not Tswana. Check the totals against each breed and the grand total as given by the respondent. This must be done before parting with the respondent so that mistakes could be corrected if there are any. Whereby the respondent cannot classify the sheep, ask for the totals and these should be by breed type

**36. Births: How many lambs were born during this agricultural season?**

Do not include still born lambs.

**37a. Deaths: How many lambs died during this agricultural season?**

Record all lambs born in the boxes provided. Include all those that died, lost or sold during this season.

**NOTE: We expect the total number of births to be greater or equal to the total number of lambs in hand otherwise probe.**

**37b. Causes of Deaths:** Insert number of deaths under cause(s) of death(s).

**38. Lamb Loses:** How many lambs were lost due to strays and theft during this agricultural season?

Do not include lambs already reported as dead in Q37a.

**39a. Sheep Deaths:** How many sheep, excluding lambs, died during this agricultural season?

Include sheep that died from disease, parasites, accidents or killed by animals or natural causes. Exclude lambs.

**39b Causes of Deaths:** Insert the number of deaths under the appropriate cause(s) of death(s).

**40. Sheep Loses:** How many sheep were lost due to strays and thefts during this agricultural season?

Note: Do not include sheep already reported as having died at Q39a.

**41. Home Consumption:** How many sheep were slaughtered for your home consumption during this agricultural season?

Include sheep that were slaughtered for weddings, deaths ceremonies and all other ceremonies held during this agricultural season.

**42. Given away:** How many sheep were given away during this agricultural season?

These may include sheep given away as gifts, payment of lobola, mafisa out, etc.

**43. Sheep Sales:** How many sheep were sold or traded during this agricultural season?

Include those sold at BMC, auctions, abattoirs, buyers, traders and other farmers. Ask for the approximate amount received from the sale of sheep. Numbers and values for Rams sold or traded should be recorded separately in their respective boxes. If the farmer has sold or traded his animals for some commodity and can not give an estimate in pula, write down the commodity.

**44. Purchases: How many sheep were purchased or obtained during this agricultural season?**

Indicate the number and value/description of goods exchanged for sheep purchased or obtained in the boxes provided. Numbers and values for Rams purchased or obtained should be recorded separately in their respective boxes.

**45a. Were any chemicals/drugs/vaccines used on your sheep?**

Ask whether any drugs, vaccines, chemicals were used on sheep. These are the kind normally used to control diseases or parasites. If yes go to question 45b and ask for the name of disease or parasite the drug/chemical/vaccine was used to control otherwise skip to question 45c.

**45b. Name the disease or parasite that chemicals/drugs/vaccines were used to control?**

These might be diseases such as Helminthiosis (Dibokwana), Pasteurelosis (Madi), Orff (Mokgomana), Heart Water (Metsi a pelo), Foot Rot (Tlhakwana) and others. Establish these and circle those given by the respondent. If anything other than the ones given is indicated, circle other and specify.

**45c. Were any feeds used on your sheep this agricultural season?**

If feeds were given, go on and ask question 45d about the types of feeds given but if no, go to part D (Other livestock).

**45d. What were the types of feeds used on your sheep?**

Establish the types given to the goats. If for example moroko was given to the sheep, circle 2.

**PART D: OTHER LIVESTOCK**

**46. How many of the following livestock do you have and how many were sold/traded during this agricultural season?**

You should state the number of livestock that the farmer has. If he/she has sold/traded some animals, state their values or give description of those goods or animals received. Read out the list of other livestock to the holder. Record the current number (being the total number of livestock that the holder has at the time of your visit), the number sold/traded during this agricultural season and the approximate values (in pula) or descriptions respectively. Include all other types of livestock and poultry regardless of age and sex.

**Note: The ones with a star refer to subsistence/traditional/communal farming.**

**47a. Were any chemicals/drugs/vaccines used on your livestock during this agricultural season?**

If these were used on any other livestock, proceed to ask the type of disease or parasite it was used to control at Q47b but if no, skip to Section III, Part A question 48a.

**47b. Name the disease or parasite that the chemicals/drugs/vaccines was used to control?**

You should be sure to write the name of the diseases or parasites as well as the type of livestock. For example, Mule sick - donkey, foot rot, molafo - dogs, coccidiosis – chickens, Newcastle – chickens, etc...

**SECTION III**

**CROP PRODUCTION**

**PART A: Crops and Fallow Fields Changes**

48a. Did this holding plough/plant any crops during this agricultural season?

Yes = 1

No = 2 go to Q57a

If the code for question 48a is “No = 2” then go to question 57a since Question 49 to Question 56 are only relevant when crops are planted.

48b. **During our first visit, it was reported that this holding had the following crops and fallow fields. Have there been any changes to this list?**

Yes = 1

No = 2 go to Q49

Read out the list of already recorded crops. If there are any crops and or fallow fields that were not mentioned earlier i.e. if the code is 1, list separately the newly reported crops and/or fallow fields, field number(s), crop varieties (if given), seed quantities planted, giving in particular, the description or type of seed container used, unit of seed container, size of container, number of units used as well as the quantity used. Measure the fields and record the measurements on the last page of the questionnaire.

If the code is 2, then proceed to Section III, part B on farming practice.

## **PART B: FARMING PRACTICE**

### **49. Were any fertilizers used on any of your crop fields?**

Yes = 1  
No = 2 go to 51a

### **50a. What type of fertilizers did you use (*circle appropriate code*)?**

If a 'Yes' is checked in Question 49, proceed to the next question (Q50a). Indicate the type of fertilizer used, whether it's chemical, manure or both.

### **50b. What was the overall quantity used?**

Specify the quantity of fertilizer used in kilograms or litres in the boxes provided.

### **51a. Were any chemicals used on your crop fields during this agricultural season?**

Yes = 1    No = 2 go to 52a

### **51b What were chemicals used to control?**

If these were used, establish what they were used to control. Chemicals might be used to control the following:-

1. Insects
2. Parasites
3. Disease/fungi
4. Other

Circle the ones indicated by the respondent

### **52a. Did you weed your crop fields during this agricultural season?**

Yes = 1    No = 2 go to Q53

Weeding refers to the removal of unwanted plants or crops among planted crops. Here you are required to establish if weeding was done in all the fields, some fields or no weeding done at all. Circle the appropriate code and if no weeding was done, circle code 3 and skip to Q53.

### **52b. How many times did you weed your fields?**

If weeding was done in any of the fields, ask for the number of times it was done and enter the number in the box provided. The question wants the

number of weeding phases the farmer weeds his/her fields and not the frequencies of weeding.

**53. What was the predominant weed?**

1. Cynodon dactylon (motlho motlhwa)
2. Datura ferox (mokhure)
3. Hibiscus meeusei (mmabasete Mmakgarane)
4. Acspermum (setlhabakololobe, sephalane, khonkhorose)
5. Urochloa mosambicensis (phoka, sugwagwa)
6. Sesamum triphyllum mothomaganyane, mosuwene)
7. Stiga asiatica/Alectra vogelli (matebele, molelwane)
8. Tribulus terrestris (mosetlho, setlho)
9. Sida cordifolia (motswalakgoro)
10. Other (specify)

Establish the most/main weed and circle the appropriate code, if other please specifies the type of weed. Only one answer is applicable.

**PART C: DISPOSAL OF CROP PRODUCE**

54a. Now ask the holder about harvested crops.

There is a table provided to capture crop disposal. Field numbers, crop names and crop codes.

The field numbers, crop names and codes, entered under this question should correspond with those in form II question 22 and those in question 48b and 54a of form III. If a difference is noticed make necessary changes on the respective questions. For example, if sorghum is listed in field 1 question 22 of form II, it should also appear as field 1 in both questions 48b and 54a of form III. However, where form II and form III are done concurrently this should not be a problem. It is very important that information is transferred from form II Q22 to Q48b as is. That is, a crop, say sorghum, listed in field 1 as the first crop in Q22, should be listed in field 1 as crop 1 in Q48b as well as in Q54a.

Example - Correct

Q22			Q48B			Q54A		
Field no.	Crop	code	Field no.	crop	Code	Field no.	Crop	Code
1	Sorg.	11	1.	Sorg	11	1.	Sorg	11
1	maize	12	1.	maize	12	1.	Maize	12
2	maize	12	2	maize	12	2.	Maize	12
2	Beans	13	2	Beans	13	2	Beans	13
2	Sorg.	11	2	Sorg.	11	2	Sorg.	11

Example 2 - Wrong

Field no.	crop	code	Field no.	crop	code	Field no.	Crop	Code
1	Sorg.	11	1.	maize	12	1.	Sorg	11
1.	maize	12	2.	sorg	01	1.	Maize	12
2	maize	12	2	Beans	12	2	Sorg	11
2	Sorg	11	2	maize	12	2	Beans	13
2	Beans	13	2	Sorg.	11	2	maize	13
2	S/flower	05	2	S/flower	15	2	S/flower	05

**Harvesting status codes**

The codes 1 for harvested, 2 for will be harvested and 3 for will not be harvested apply_for Q54a (b) (harvesting status code). If “has been harvested” or “will be harvested” is checked, i.e. code 1 or 2, then complete this section on production, otherwise go to Q54b where you will indicate the sources of crop buyers if there were any crop sales. Include any kind of crop taken from the field as production regardless of use. If code 3 indicated for any crops or all the crops, you will then have to go to Q55 to ask for the reasons why such crops will not be harvested.

For questions on Total Production (54c), Home Consumption (54d), Stored (542e), Given Away (54f), Payment in kind (54g) Sold/Traded (54h), Expected Further Sales (54i), give details regarding the following:

**Weight of unit.** Write the weight of the unit in kilograms where possible. If weight is reported in something other than kilograms, then specify. For example ton, pounds, gallons, etc.

**Number of units harvested.** Write the number of units harvested from the field as reported by the respondent. For example, if the holder has harvested a total of five bags weighing 70kg each from a field, you would write 5 on the line for number of units and 70kg on the line for weight of unit. Sometimes a holder will grow the same crop in more than one field and might not be able to report the number of units harvested by field. In this case, collect the total number of units harvested for the total crop and make a note at the bottom of the page explaining the situation. It is important that for the combined crop production, the other field should be indicated as ‘will not be harvested’ and coded as such, for the purposes of analysis.

Make sure that all the combined number of units under 54d to 54h, add to the total production under 54c.

**NOTE:** Ask the respondent the total receipts obtained and all expected further sales by crop. Indicate the number of units, weight of units (kg) and total amount received and expected to receive.

**It should be noted that if the respondent gives the measurement in the form of wheelbarrows and donkey cart the following conventions should be considered.**

**1 wheelbarrow = 50kg**

**2 wheel donkey cart = 250kg**

**4 wheel donkey cart = 500kg**

**54b. Where did you sell most of your crop produce?**

This is a multiple response question. You may read out the list of choices to the respondent or circle the choices as indicated by the respondent. Refer to questionnaire.

**55. What are the main reasons for not harvesting the crops mentioned earlier (Q54a)?**

1.Lack of rain	1
2.Crops destroyed by livestock	2
3.Diseases destroy crops	3
4.Pests attach crops	4
5.Underground fires	5
6.Floods destroy crops	6
7. Weeds destroy crops	7
8. Frost destroy crops	8
9. Wildlife destroy crops	9
10. Quelia bird destroy crops	10
11. Locust destroyed crops	11
12. Other (specify)_____	12

Ask the respondent why the crops were not harvested and circle the choices as indicated by the respondent. This is also a multi response question.

**56. Do you produce hay/silage from your crop residues/remains?**

Circle 1 if you produce Hay, 2 if you produce Silage, 3 for both silage and Hay and 4 for No.

- Hay is animal feed produced from dried residues (e.g lethaka le le sidilweng le omisitswe)

- Silage are animal feeds produced from green residues especially at flowering stage (e.g letlhaka le letala le le sidilweng)

#### **SECTION IV: WATER SUPPLY, FARM EQUIPMENT AND MACHINERY INVENTORY**

##### **57a. What is your most reliable source of water supply for the following (livestock and household)?**

A list of sources is provided under this question for both livestock and household (Borehole, Well (Petse), Dam, River, Pan (lecha), Pond and ALDEP Tank). Establish and tick the most reliable source among the ones provided.

If respondent gives more than one source and is adamant that they are the most reliable sources, probe further in order to come up with the one most reliable.

##### **57b. Who owns the water source?**

For each of the two options in Q57a (livestock and household), indicate the ownership of the source by ticking the appropriate source, that is, indicate whether its Self, Family, Syndicate, Community, Government or other (Specify).

##### **57c. For water source being borehole, state the source of energy.**

Sources of energy:- 1. Solar, 2. Petrol, 3. Diesel, 4. Electricity.

Unlike other water supply sources, a borehole needs some source of energy in order to function that is why you need to ask for the particular source of energy and circle the one indicated by the respondent.

#### **SECTION V: CLIMATE/WETHER**

##### **58a. Do you have access to weather forecast information?**

Weather is the short term state of atmosphere (loapi).

Circle 1 if you have access to any information on weather forecasts and 2 if you don't have any access to weather information go to Question 59a

##### **58b. Do you use this information?**

Circle 1 if you use the weather information and 2 if you don't it.

##### **59a. Are you aware of climate change?**

Climate is long term state of the atmosphere (loapi).

Circle 1 if the respondent has ever heard about climate change and 2 if he/she has never heard about it.

**59b. What climate change have you noticed over years?**

Circle the appropriate codes as they appear in the questionnaire

**SECTION VI: FARM ENTERPRISE - Economic Section**

**60a. What are the sources of income for this holding?**

- |                                           |   |
|-------------------------------------------|---|
| 1.Sale of crop produce                    | 1 |
| 2.Sale of livestock                       | 2 |
| 3.Income from paid employment             | 3 |
| 4.Sale of other produce                   | 4 |
| 5.Income from business other than farming | 5 |
| 6.Remittances                             | 6 |
| 7.Pension                                 | 7 |
| 8.Other (specify) -----                   | 8 |

This is a multi response question .You may need to read out the choices to the respondent and circle the appropriate codes (as per his/her choices). It should be noted that remittances can be from inside or outside Botswana. Also remember not to code money received as maintenance under remittances, it should be coded as other. Pensions refer to all forms of pensions such as, old age pensions, retirement pensions and war veterans' pensions. If it has been indicated that the farmer has sold some crops (Q54a) or livestock (Q13b, Q31, Q43 and Q46) code 1 and/or 2 should be circled.

**60b. Of the ones indicated above, which do you regard as the main?**

Indicate the main source of income and write its code in the box provided.

**61a. What are the sources of food for this holding?**

- |                                    |   |
|------------------------------------|---|
| 1. Own farm production             | 1 |
| 2. Purchased food                  | 2 |
| 3. Government rations              | 3 |
| 4. Supplies from relatives/friends | 4 |
| 5. Other (specify)-----            | 5 |

This is a multiple response question. You may have to read out the list of choices to the respondent and code as necessary. If it has been indicated that the farmer has home-consumed some crops (Q54a) or livestock (Q17, Q29, Q41 and Q46) code 1 and/or 2 should be circled.

**61b. Of the ones indicated above, which do you regard as the main source?**

It is the responsibility of the respondent to indicate the most important source of food for his/her holding from the ones he/she has already indicated ( i.e. choices circled in Q60a). Place its code number in the box provided (Q60b).

**62a. Are you aware of any of the following farming programmes?**

- 1.ISPAAD
- 2.NAMPAADD
- 3.LIMID
- 4.OTHER (Specify)
- 5.None

Circle all programmes which the holder is aware of. (One or more programmes could be circled depending on how many the holder is aware of. If the code is "5 = None" go to question 63. If the farmer has indicated that he/she has used ISPAAD during this agricultural season (case where the phases are running concurrently), ISPAAD should be circled.

**62b. Have you ever benefited from any of the following?**

- 1.ISPAAD
- 2.NAMPAADD
- 3.LIMID
- 4.OTHER (Specify)
5. None

Circle all programmes which the holder benefited from during this agricultural season. (One or more programmes could be circled depending on how many the holder benefited from. If 'None', go to question 63.

**62c. What was/were the package(s) obtained?**

1. Cluster Fencing (ISPAAD)
2. Provision of portable water (ISPAAD)
3. Ploughing & Planting Services (ISPPAD)
4. Fertiliser (ISPAAD)
5. Seeds (ISPAAD)
6. Kraals, Crushes & Loading Ramps (LIMID)
7. Small Stock (LIMID)
8. NAMPAADD Technologies (NAMPAADD)
9. Water Reticulation (LIMID)
10. Borehole Drilling & Equipping (LIMID)
11. Other (Specify)

Try to explain to the respondent or holders, what you mean by ISPAAD. Mention a number of packages included in ISPAAD

Note that; -

- ISPAAD stands for Integrated Support Programme for Arable Agriculture Development.
- LIMID stands for Livestock Management and Infrastructure Development.
- NAMPAADD stands for National Master Plan for Arable Agriculture and Dairy Development.

### **Part C: FARM LABOUR.**

#### **63. Is there anyone employed either on fulltime or temporary basis on this holding?**

Yes = 1 go to Q64 No = 2 (end interview)

If there are people employed, circle 1 and continue with question 64, but if there are no employees end interview.

#### **64. Persons currently employed in this Holding.**

Question 64 has fourteen columns or questions most of which are the same with those in form II household schedule. It therefore means that all procedures followed in the household schedule will be followed the same way under this question.

Column 2. Give names of all those are currently employed in this Holding?

List names of all those who are currently employed permanently or temporarily in this Holding. These include those who are working during the time of your visit. Remember to include managers where applicable because they are also employees.

Column 3. Sex (1. Male 2. Female)

Enter the appropriate one-digit code in the space provided under this column. Even though a person's sex might look obvious, be careful to get the correct sex.

Column 4. Age How old is..... in completed years?

Record the years in completed years. Remember, just like in the household schedule, record a person's age as of his/her last birthday. Documents like Omang, Birth Certificates, Clinic Cards, and Passports will always help you to accurately establish people's ages if they are available.

Column 5. Citizenship. What is the Country of ...' citizenship?

Establish this and code according to the list of country codes provided. If a person is a citizen of a country not listed write the name of the country in the space provided.

Column 6. Marital status: What is ...'s marital status?

Follow the same procedure as in the household schedule. Enter code 1 for those never married, 2 for those married or any one digit code as given in the questionnaire.

Column 7. School Attendance: What is the level/grade has ... completed?

Follow the same instructions as those for form II household schedule column 7

Column 8. How did ... get the skills he/she uses now?

There are four options to this question. One might have acquired skills through 1. Self teaching, 2. Apprenticeship, 3. On the job (on job training), 4. Technical/vocational training. Establish how somebody acquired the skills and code accordingly. If other please specify.

Self taught: This refers to skills that you have but did not undergo any training to acquire them. It could be from friends, work mates and own reading, etc but not formally arranged.

Apprenticeship: This is when a formal arrangement has been made for someone to be trained on a particular skill and getting an allowance instead of a salary.

On the job Training: This is when you do some short term training at your work place formally arranged by your employers. This form of training might always take a few hours in a day or might run for days, weeks or even months.

Technical/Vocational: Training: This is when you go to a technical institution to d training of some sort by which time you will not be doing any formal work at all and it might be short or long term training.

Column 9. What was ... working as?

This column, like column 13 of the household schedule captures the employment status of individuals that is whether they are employees paid in cash, employees paid in-kind, self employed with no employees, self

