



REPUBLIC OF ZAMBIA

SUPPLEMENTAL SURVEY TO THE 1999/2000 PHS
(for small and medium scale holdings)

INTERVIEWERS INSTRUCTION MANUAL

CENTRAL STATISTICAL OFFICE
(AGRICULTURE AND ENVIRONMENT DEPARTMENT)

in conjunction with

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INTRODUCTION

1.1 Background and Purpose

The Supplemental Survey to the 1999/2000 Post Harvest Survey is a continuation of the survey conducted in August/September 2000. This survey is a second visit to the households who were interviewed during the Post Harvest Survey in 2000.

The Food Security Research Project (FSRP) has identified specific survey data needs pertaining to rural households in support of its various research activities. The purpose of the 99/00 PHS Supplemental Survey is to obtain information from 99/00 PHS respondent households which will thus be supplemental to the information already collected. This survey is aimed at studying options to improve crop production and marketing, and food consumption among small farmers. Information to be collected includes demographic data, off-farm income activities and earnings, land holding, actual estimates of crop sales and purchases, fertilizer purchases, cotton production, services offered by farmer organizations, farmer adoption of conservation farming practices, milk and egg production/sales, asset holding and current crop forecasting estimates.

Unlike most surveys where the respondent is asked to recall or forecast events for the same period throughout the survey interview, the Supplementary Survey to the 1999/2000 Post Harvest Survey asks the respondent to recall and forecast events for different time periods. As such it is very important for the interviewer to check which time period the questions in each section refer to. The Survey has 14 sections whose time periods are outlined in Appendix 1. The interviewer is strongly advised to refer to the table from time to time during the interviews so as not to confuse the time reference periods. Some sections have different time reference periods within them.

1.2 Scope and Coverage

This Supplementary survey will cover the whole country and will be conducted in the same sample areas numbering 407 Standard Enumeration Areas (SEAs) used in 1999/2000 Post Harvest Survey. The Survey will interview all the respondents who were interviewed during the 1999/2000 PHS. Those SEAs that were not included in the 99/00 PHS due to accessibility problems, will not be included in the supplemental survey.

1.3 Sample Design

A sample of 407 Standard Enumeration Areas (SEAs) was drawn using probability proportional to size sampling scheme. The measure of size of the SEAs is the number of households located within each SEA on the area sampling frame as per the 1990 Census of Population.

Following the 1990 Census of Population, Housing and Agriculture among whose objectives was the creation of a sampling frame for agricultural surveys, a Master Sample of agricultural

SEAs was set up and this sample was used in collecting Census of Agriculture data during the period 1990/91 to 1991/92 and during the Post-Harvest Surveys of 1992/93 to 1999/2000.

Drawing on the experiences from the Census of Agriculture and the three Post-Harvest Surveys that followed, it was realized that estimates for minor crops such as rice, sorghum, cotton, and tobacco were far from being satisfactory. Because of this, it became necessary to revisit the area frame in order to address the situation.

In order to try and improve on the estimates for minor crops it was decided to create Crop Zones for these crops. In doing so a number of strata (Zones) were created in order to accommodate for precision and accuracy in the estimates for minor crops.

In each district, the allocated sample size was shared proportionately among the crop strata, i.e., the more SEAs a crop stratum had the larger its share of the sample. This was done whilst ensuring that a minimum of two SEAs was selected from each stratum to facilitate computation of sampling error of the estimates.

Each sample SEA had its households listed and a sample of twenty (20) households: 10 from category 'A' and 10 from category 'B' was selected. These households were canvassed for the Post-Harvest Survey 1999/2000 and the same households will be canvassed for the Supplemental Survey. If a household cannot be re-visited, it will not be replaced by another household. Supervisors, however, will verify cases of non-contact.

1.4 Survey instrument

The Survey Instrument will include household-specific data from the 99/00 PHS as reference for specific sections of the instrument. In order to find the exact same households, the Instrument will also include the household heads' names and household identification numbers. The 99/00 PHS reference information sheets for each household are available. They clearly indicate the SEA code, household identification number, and other key variables. Once in the province, each interviewer will fill in the name that matches the household number on the sheet according to the sample list.

ORGANIZATION OF THE SURVEY

2.1 Structure

The Supplemental Survey field operations will be organized as follows:

Survey Manager

The major task is to coordinate all the survey activities by servicing the various provincial teams. This shall be headed by the Deputy Director (Agriculture and Environment Division), assisted by the Principal Statistician.

Master Trainer

He/She shall be in charge of the recruitment process and the training program in the province and shall oversee the training process and field operations in the province. His/Her duties and responsibilities are outlined below.

Provincial Statistical Officer/ Regional Statistician

He or she shall be the link between the CSO Headquarters and field staff. His or her duties and responsibilities are outlined below.

Supervisor

He/She shall be in charge of carrying out supervision of field work. His/Her duties and responsibilities are outlined below.

Interviewer

He/She shall carry out the administering of the questionnaire with sampled households in selected Standard Enumeration Areas (SEA). His/Her duties and responsibilities are outlined below.

Data entry clerk

Shall be responsible for receiving and sorting questionnaires, data entry, data verification and cleaning.

FSRP Staff

The client shall work in conjunction with the Survey Manager, Master Trainers and Provincial Statistical Officers/Regional Statisticians to provide technical and logistical back-up during training and actual field operations.

2.2 Reporting System

In the operation of this survey, a clearly defined reporting system is very crucial. This means a bottom-up and top-down reporting system has to be adhered to strictly.

The following is the reporting system to be followed:

The interviewers shall report all the problems being encountered in the field to their supervisors quickly. The supervisors in turn shall offer solutions to their problems.

Where the supervisor has no solutions to the problems, he/she shall report to the master trainer who will liaise with the Provincial Statistical Officer/Regional Statistician for possible solutions.

The Master Trainer shall from time to time brief the Provincial Statistical Officer on the logistical aspects of the field operations in the respective districts.

The Master Trainer shall from time to time brief the Survey Manager on the technical aspects of the field operations in the respective districts.

The Provincial Statistical Officer shall from time to time brief the Survey manager on the field operations. The PSOs are expected to send progress reports to the Survey Manager office.

Information from the Survey Manager's office shall be sent to the PSOs for dissemination to the other survey field staff.

DUTIES AND PERFORMANCE OF ACTIVITIES

3.1 Survey Manager

The survey manager will be in-charge of the overall operations. His duties and responsibilities will be mainly administrative. He will be required to see to it that the field operations run smoothly. This entails attending to problems and making quick decisions.

Duties and responsibilities

- To oversee the survey operations in all the provinces and ensure that the survey program succeeds.
- To mobilize adequate transport for the survey operations in collaboration with the PSOs.
- To monitor the recruitment of both Supervisors and Interviewers by ensuring that proper procedures are followed.
- To ensure that all field staff have been trained and deployed in accordance with the survey program.

3.2. Provincial Statistical Officer (PSO)

The PSO will be in charge of coordinating all the survey activities in the province in collaboration with the Survey Manager. He/She shall be the link between the Survey Manager and districts.

His/her role in the survey operations is crucial in that she/he is expected to ensure that the survey operations in the province are being carried out according to the program.

Duties and responsibilities

He/She will be the link between the field staff and the Survey Manager in the procurement and provision of accommodation, transport and general well being of Survey officials.

Their offices will be centers of coordination between the Survey Manager and field staff.

- Liaise with the Survey Manager in arranging for adequate transport for the survey operations and ensure that adequate fuel, oil, and lubricants are distributed to the districts on time.
- Facilitate deployment of Supervisors and Interviewers to their work areas after training

- To ensure that all the survey materials are distributed to the districts in adequate amounts and on time.
- To brief the Survey Manager on the progress of the survey operations on a regular basis and alert him about any field problems
- To provide logistical and administrative support to Master Trainers in the training of Supervisors and Interviewers and during the field operations

3.3 Master Trainer

The Master Trainer will be in charge of the recruitment process, training program and field operations. Specifically, you will perform the following duties and responsibilities:-

- To recruit Supervisors and Interviewers in your province
- Develop and implement a training program for your province
- Train Supervisors and Interviewers and oversee the training program
- Allocate Census Supervisory Areas (CSA) to Supervisors and Standard Enumeration Areas to Interviewers.
- Deploy Supervisors and Interviewers to their respective work areas in the province
- To work closely with the supervisors in all matters pertaining to the survey operations
- Ensure complete enumeration of sampled households in all SEAs
- Attend to technical and administrative problems
- Report on the progress of the Survey to the PSO from time to time
- Hold occasional briefs with the PSO and Supervisors
- Ensure that all questionnaires are properly edited, accounted for, batched and despatched to the Provincial CSO office
- Ensure that all other Survey materials such as manuals, pamphlets and questionnaires etc. are returned to the CSO provincial office.
- To perform, as the situation will demand, any such duties that will facilitate as far as possible the smooth execution of the survey activities.

3.4 Supervisor

Supervision of Interviewers is very important in the whole survey process. His/Her role is to act as the link between the Interviewers, who will be conducting the actual interviews in the

field and the Survey organizers , through the Master Trainers. The supervisor will be required to:

- Lead and guide Interviewers, seeing to it that they are performing their work according to instructions.
- Ensure that interviewers go to the same households that were interviewed during the 99/00 PHS, and verify cases of non-contact and dissolved/moved households.
- To check each completed questionnaire for completeness and consistency before submitting the questionnaires to the master trainer.
- To carry out the day-to-day supervision of enumeration work.
- Ensure that each person taking part in the survey under his supervision carries his full load of work and that all work is completed quickly and accurately as specified by this manual.
- To perform, as the situation will demand, any such duties that will facilitate as far as possible the smooth execution of the survey activities.
- Good performance will depend on how closely interviewers are supervised, correcting mistakes as they occur.

3.5 Interviewer

Field interviewers are the eyes and ears of the data collection team. The interviewer serves as a link between those who analyze and use the data and the respondents who furnish the data. The information collected in any survey is only as good as the interviewers working on the survey. Quality depends on all interviewers following the same procedures. Only when the same techniques have been used for all interviews can the data be effectively analyzed and interventions confidently implemented.

(a) Ethics and Rules of Conduct of Interviewers

As an interviewer, it is your responsibility to **keep completely confidential** anything you learn and observe during an interview. Never disclose any facts about anyone you interview to someone else. Respondents should be told that the information they provide will be used in statistical form only and that their names will not be associated with their answers when the data are analyzed.

Things You Must Do

- You must introduce yourself on every visit and explain to the respondent the reason for your visit before starting the interview.
- You must read and intensively study your manual to become thoroughly familiar with its contents in order to do your work efficiently.

- You must ask the questions in exactly the same way to each respondent and in the same order in which they are presented in the questionnaire, since, if the interviews are to be comparable the question order needs to be standard from respondent to respondent.
- You must make every effort to write legibly, and keep the documents you are working on clean and free from damage.
- You must attend to all `call-backs' as early as possible, and must be punctual in keeping all appointments made.
- You are solely responsible for all documents issued to you in connection with the survey, and you must ensure that they are secure at all times. Remember that absolutely no one not employed by CSO/MAFF/FSRP to work on this survey can be allowed to see the information you collect, nor must you discuss such information with anyone.

Things You Must Not Do

- You must not solicit or permit any unauthorized person to assist you with your work. No matter how intelligent they are, they will not have had the training you have nor the authority to participate in interviewing.
- You must not combine with the survey work any canvassing for personal gains, church, political party or any other organization.
- You must **NEVER** become involved in religious or political discussions while you are on the job.

(b) List of Basic Duties and Responsibilities

You, the interviewer, are the key to the success of the survey. You alone have a direct influence on the accuracy of the data collected. Since it is more practical and economical to concentrate on collecting accurate data than correcting inaccurate data after collection, you must make every effort to become familiar with this survey and follow its instructions carefully. It will be of utmost importance that you:

- Attend the training course and all other scheduled meetings.
- Study this manual very carefully and remember the main points which are explained here. Become fully familiar with the questionnaire.
- Complete all the data collection activities as required.
- Review each completed questionnaire for accuracy and completeness.
- Submit completed questionnaires to your Supervisor as promptly as possible.
- To enumerate all the persons sampled in the SEA

- To ensure that all survey materials are looked after properly and returned to the supervisor after the survey exercise is over
- To perform any other functions which the supervisor may assign from time to time
- Keep all information received completely confidential.

At times you will find that the actual situation in the field will make your job somewhat difficult. For example, you may run out of pencils or your bicycle may break down temporarily. It is very important that you do not allow these obstacles to stand in your approach to this job. You should seek common-sense solutions to the kind of difficulties you are sure to encounter. If you are temporarily out of pencils, for example, borrow one from a friend; or if your bicycle breaks down, consider another form of transportation until you are able to have it repaired.

It will be up to you to find temporary solutions to the problems you face until a more permanent solution is found.

(c) Timeliness of the submission of questionnaires

Prompt submission of the questionnaires is absolutely crucial for timely processing. If submission of the forms is delayed, it will be impossible to process them on a timely basis. The value of the data for planning and decision making is directly related to its timeliness.

3.6 The role of Food Security Research Project staff

The Survey Manager, PSOs and Master Trainers will work in conjunction with the FSRP staff. The performance of Master Trainers will be monitored and evaluated by FSRP staff as an input to the final evaluation at the end of the survey. During the survey operations, FSRP staff will oversee all technical and logistical matters including use of resources. FSRP staff will monitor progress and influence the actions taken by Master Trainers and Provincial Statistical Officers. Overall, FSRP staff will be in the field as a quality control link between field staff and the Survey Manager.

GENERAL INTERVIEWING PROCEDURES

4.1 Preparing for the interview

There are four important steps which must be taken before you visit the household.

Reviewing the Interviewer's Manual

This includes reviewing the general interviewing procedures, the specific field procedures and the question-by-question instructions.

Reviewing the Questions on the Survey Questionnaire

Before you begin interviewing, practice using the questionnaire to build up your confidence. A successful interview requires an interviewer who fully understands the survey questionnaire and can use it easily and correctly. Stumbling through the questionnaire (losing your place, shuffling papers, etc.) can disturb the person being interviewed.

Organizing Survey Materials

Be sure you know what survey materials you need and that you have them with you before going into the field to interview.

Appearance and Behavior

The first thing a respondent notices about the interviewer is his appearance. It is important to create a good impression by being polite, neat and courteous.

4.2 Establishing a good relationship

A comfortable relationship between the interviewer and the respondent is the foundation for good interviewing. The person's impression of you during your visit will largely determine the atmosphere during the interview. If you seem bored, uninterested or hostile, the respondent will probably act in a similar way.

Remember that persons tend to react favorably if they think the interviewer is someone with whom they will enjoy talking to. This means that you have to impress the respondent as being someone who is friendly and understanding. Through your behavior you can create an atmosphere in which the respondent can talk freely.

4.3 Using the survey questionnaire and asking the questions

The goal of the interview is to collect accurate information by using the questionnaire and following standard interviewing practices. To reach this goal, the interviewer needs to understand the survey questionnaire, including how to ask the questions, how to follow the instructions in the questionnaire and how to identify the various types of questions.

In asking the questions, observe the following rules:

Remaining Neutral

You must maintain a neutral attitude with the respondent. You must be careful that nothing in your words or manner implies criticism, surprise, approval, or disapproval of either the questions asked or the respondent's answers.

You can put respondents at ease with a relaxed approach and gain their confidence. The respondent's answers to the questions should be obtained with as little influence as possible by the interviewer. Another interviewer should be able to obtain the same answers as you.

The questions are all carefully worded to be neutral. They do not suggest that any answer is preferable to another. When a respondent gives an ambiguous answer, never assume what the respondent means by saying something like 'Oh, I see, I suppose you mean ..., is that right?' If you do this, very often the respondent will agree with your interpretation, even though it is not correct.

Asking Questions in the Order Presented

Never change the order of the questions in the questionnaire. The questions follow one another in a logical sequence; to change that sequence could alter the intention of the questionnaire. Asking a question out of sequence can affect the answers you receive later in the interview.

Asking Questions as Worded

Do not change the question. If the respondent does not seem to understand the question, simply repeat it. In order that the information from the questionnaire can be put together, each question must be asked in exactly the same way by each respondent.

In some unusual cases, the respondent may simply not be able to understand a question. If it is apparent that a respondent does not understand a question after you have repeated it using the original language, you can rephrase it in simpler or colloquial language. However, you must be careful not to alter the question when doing this.

Sometimes, respondents will ask you to define words in a question or explain some part of a question. When this occurs, consult the 'Specific Data Collection Procedures' in Chapter 5 of this manual. All the important words and terms are defined there. If a word is not defined, tell the respondent to answer using his or her own definition. Say, 'Whatever it means to you - just answer that way.'

Avoid Showing the Questions to the Respondent

Respondents can be influenced by knowing what questions are coming next or by seeing the answer categories which are not asked together with the questions.

4.4 Instructions in the questionnaire

In addition to the questions you must ask, the questionnaire contains instructions for you, the interviewer. The instructions are for you to use the questionnaire correctly and must be followed closely.

'Skip' Instructions

'Skip' instructions usually are written out. You must read the 'Skip' instructions with care, so that you do not skip questions which should have been asked. Likewise, it is important that you skip to the correct question when necessary. If you are careless, you may skip some questions incorrectly and miss some essential questions. When questions are not asked because of a 'Skip' instruction, leave the response boxes blank. The questionnaire has a good example of an important skip pattern.

EXAMPLE: Question 2.1:

INTERVIEWER: Since 1996, has there been any child or adult in this household who died?

1. Yes

2. No- Go to Section 3

A 'No' response leads to Section 3 as indicated by the instruction to the right of the 'No' box.

Question-specific Instructions

In addition there are 'question-specific' instructions for you in the questionnaire. These instructions usually alert you to a consistency check that has to be made at the time of the interview, or tell you how to record an answer. In all cases, these instructions will be printed in brackets.

4.5 Probing

(a) *Probing and Why It Is Necessary*

Probing is the technique of questioning by the interviewer to obtain a full, complete and relevant answer. An answer is probed whenever it is not meaningful or complete, that is when it does not adequately answer the question.

In everyday social conversation, people normally speak in vague and loose terms. Therefore, it is understandable that respondents may at first answer questions in a way which is not clear or specific. It is essential, however, to encourage respondents to express themselves more precisely and in very specific terms.

Respondents sometimes miss the point of a question. They will provide an answer of a kind but they do not answer the question. It is easy to be misled by a respondent who is talkative and gives a full and detailed response - a response, however, which is quite beside the point and irrelevant. In most cases, respondents give an irrelevant answer because they have missed an important word or phrase in the question.

Sometimes, respondents will think that they are answering a question when all they are doing is simply repeating an answer which was already given, or repeating parts of the answer. A respondent can talk a great deal and still be merely repeating the already given answer in different words.

Probing therefore, has two major functions:

- To motivate respondents to expand upon or clarify their answers;
- To make the respondent's answer precise so that irrelevant and unnecessary information can be eliminated.

Probing must be done without introducing bias or antagonizing the respondent. Respondents must never be made to feel that you are probing because their answer is incorrect or unacceptable.

(b) Understanding the Intention of the Questions

The kind of probe to use must be adapted to the particular respondent and the particular answer given. There are some general types of probes that are frequently useful but the most important point is to avoid getting into the habit of using the same probe. Instead, you must seek to understand what the intention of each question is, so that you will always know in what way a particular answer falls short of being satisfactory. The probe, then, should be devised to meeting this gap. This will require ingenuity, tact and persistence.

(c) Neutral Probing Methods

It is always very important to use neutral probes. By 'neutral', we mean that you must not imply to the respondent that you expect a particular answer or that you are dissatisfied with an answer.

The reason for probing is to motivate the respondent to answer more fully or more precisely without introducing bias. Bias is the distortion of responses caused by the interviewer favouring one answer to another.

EXAMPLE of a biased probe: Question S07

S07 How much of this crop did you sell for cash?

ANSWER: 50 or 60 bags.

IMPROPER PROBE: Oh, you mean 60 bags?

(This improper probe is pushing the respondent to say 60 bags when it may be 50 bags!)

PROPER PROBE: Was it 50 or 60 bags?

Some respondents have difficulty putting their thoughts into words. Others may give unclear or incomplete answers; still others may be reluctant to reveal their attitudes. You must deal with such factors and use procedures which encourage and clarify responses. The following kinds of probes might help you obtain more accurate responses.

Repeat the Question

When the respondent does not seem to understand the question, when he misinterprets it, when he seems unable to make up his mind, or when he strays from the subject, the most useful technique is to repeat the question just as it was asked the first time.

An Expectant Pause

The simplest way to convey to a respondent that you know he has begun to answer the question, but that you feel he has more to say, is to be silent. A pause - often accompanied by an expectant look or a nod of the head - gives the respondent time to gather his thoughts.

Repeating the Respondent's Reply

Simply repeating what the respondent has said as soon as he has stopped is often an excellent probe.

Neutral Questions or Comments

Neutral questions or comments are frequently used to obtain unbiased, clearer and fuller responses. The following are examples of the most commonly used probes:

- Repeat question
- Anything else?
- Any other reason?
- How do you mean?
- Any other?
- Could you tell me more about your thinking on that?
- Would you tell me what you think?
- What do you mean?
- Why do you feel that way?
- Which would be closer to the way you feel?

These probes indicate that the interviewer is interested and they make a direct request for more information.

(d) Asking For Further Clarification

In probing, it will sometimes be useful to appear slightly puzzled by the respondent's answer and intimate with your probe that it might be you who failed to understand. For example, 'I am not quite sure I understand what you mean by that - could you please tell me a little more?' This technique can arouse the respondent's desire to co-operate with someone he thinks is trying to do a good job. It should not be overplayed however, otherwise the respondent will get the feeling that you do not know when a question is properly answered. Occasionally, a respondent will give an 'I don't know' answer. This can mean any number of things. For instance,

- The respondent does not understand the question and answers 'I don't know' to avoid saying he does not understand.
- The respondent is thinking the question over and says 'I don't know' in order to fill the silence and to give himself time to think.
- The respondent may be trying to evade the issue, or he may feel that the question is too personal and does not want to hurt the feelings of the interviewer by saying so in a direct manner.
- The respondent really may not know, or may not have an opinion or attitude on the subject.

Try to decide which of the above is the case. Do not immediately settle for a 'don't know' reply. If you sit quietly, but expectantly - the respondent will usually think of something to

say. Silence and waiting are frequently your best probes for an 'I don't know' answer. You will also find that other useful probes are, "well, what do you think?" or 'I just want your own ideas on that'. If you feel that the respondent has answered 'I don't know' because he was afraid of admitting ignorance, you should say that there are no right or wrong answers to the questions and that you just want the respondent's answer or opinion.

Likewise, if you think the respondent says 'I don't know' because a question is too personal, you should remind the respondent that the survey information is confidential.

Always probe at least once to obtain a response to a "don't know" before accepting it as the final answer, but be careful not to antagonize the respondent or force an answer if he says again 'I don't know'.

(e) When to Stop Probing

You should stop probing when you have a clear, relevant answer. However, if at any time the respondent becomes irritated or annoyed, stop probing that question. We do not want the respondent to refuse to complete the rest of the interview.

4.6 Controlling the Interview

While it is important to maintain a pleasant, courteous manner in order to obtain the respondent's co-operation, you must also be able to control the interview so that it may be completed in a timely and orderly fashion. For example, when answering questions, the respondent may offer a lengthy explanation of problems or complaints. In this situation, you must be able to bring the discussion to a close as soon as possible so that the interview may continue. Politely, tell the respondent that you understand what he is saying but that you would like to complete the interview. If necessary, you may try to postpone any outside discussion by saying 'Please, let's finish this interview first and we can talk about that later'.

In some cases, the respondent may start to provide information about some aspect of his farm which is covered at a later time during the interview. Again, you must control the interview by telling the respondent that you must ask other questions first and that he should wait until later to provide information on that particular aspect.

4.7 Recording the Answers

Asking the questions correctly and obtaining clear answers is only part of your job. Equally important is recording the answers given by the respondents.

(a) Legibility

It should be obvious to you that all the entries you make in the questionnaire must be legible. If your Supervisor cannot read an entry, the questionnaire will be returned to you for correction. When this happens, much time will be wasted. Since you must spend a great deal of time to go to a household and obtain the information in the first place, why not take care in recording information so that no one else will have difficulty in reading it later.

All responses which require written words should be clearly printed in block letters rather than script. All numbers should be clearly written so that one number is not confused with another. Remember that the numbers will be used in both hand and computer calculations. If

they are not legible, mistakes will be made in hand calculations and in entering the numbers on diskettes for computer processing.

(b) Recording information in the proper place

There are basically two types of responses required in the questionnaire i.e., writing words and recording numbers

Writing words

In some cases, you are required to write in the questionnaire; this may be the name of the head of the household, the village/locality name, or comments concerning the problems encountered.

To avoid the difficulty of reading script, you should print all words in block letters.

Recording numbers

Special care must be taken when entering numerical responses because they will be used in calculations and some will be key-punched directly from the questionnaire for computer processing. Special care should be taken with some numbers such as a '1' and a '7', a '4' and a '7', or an '8' and a '9' which can be misinterpreted.

Recording Fractions

In most cases, only whole numbers (for example: 4, 6, 7, 15, 21, etc.) will be recorded since this is the kind of information usually required. Sometimes, however, the respondent might provide you with an answer in fractions. This is especially the case with area. For example, if the respondent tells you that he has $2\frac{1}{2}$ hectares of crop land which he cultivated during the 1999/00 agricultural season, make sure that when you record his answer, you convert it to decimal numbers. That is, change the fraction $\frac{1}{2}$ to 0.5 and record 2.5 hectares. Never record a fraction, always convert it.

The following are some commonly used fractions and their decimal equivalents rounded to the nearest tenth.

$$\begin{array}{lll} \frac{1}{4} = 0.25 & \frac{1}{2} = 0.50 & \frac{3}{4} = 0.75 \\ \frac{1}{3} = 0.33 & \frac{2}{3} = 0.67 & \end{array}$$

4.8 Interviewer comments/calculations

The only kinds of entries which should be made in the spaces provided for answers are writing names or recording numbers. If any other notes or explanations are necessary or if you must do some arithmetic, use the spaces around the table or below the questions. Do not make any comments or calculations inside a space provided for an answer. If you require more space for comments/ calculations, use any available space on the page with reference to the item number on which the comments/calculations are being made. The use of the spaces around the table for comments or calculations is very important.

If you have any problems of any kind in obtaining the information which is required, make a note explaining it in the open space available on that page.

An important phrase to remember is 'When in doubt, write it out'. If you cannot understand what a respondent means, write out his response in the open space. This will be of great use to your Supervisor and to office staff in trying to resolve any problems in the questionnaire. Any arithmetic should also be done in the open space. When making a comment in the open space, always indicate the question to which the comment relates. If there are several parts to the question such as 1.1, 1.2, etc., be sure to indicate the part also of the question referred to.

4.9 Ending the interview

It is important that you leave the respondent with the idea that you are grateful for his or her co-operation. After all the questions have been asked, thank the respondent and mention that his or her co-operation has been most helpful in providing the information for the survey. Also inform the respondent that you may possibly be returning to collect more information.

SPECIFIC DATA COLLECTION PROCEDURES

5.1 Informed consent form

The interviewer is expected on the onset to identify him/herself and explain the purpose of the visit. The informed consent statement is a legal requirement for Michigan State University, Food Security Cooperative Agreement Surveys in Africa. The interviewer is not expected to read this statement word for word. The interviewer is expected to explain the purpose of the visit, the confidential nature of the interview, and the expected time the interview will take. The purpose of the interview is to collect data which when processed will provide information which will assist policy makers plan and make better decisions. The interviewer is not expected to make promises. Just stick to the purpose. The interviewer can mention that "we are merely the eyes and ears of government".

5.2 Pre-entry of 99/00 PHS data

These questionnaires are personalized for each household in the sense that the interviewers are going back to the households who were interviewed in August 1999/2000 for the PHS Survey. Selected data from the PHS survey will be entered on blocked boxes before hand to guide the interviewer on issues this supplementary survey is following up. Pre-entry of this data will take place during training. Each supervisor is expected to make sure that this pre-entry is completed prior to commencing interviews. If during the course of the interview the respondent does not agree with the numbers on the questionnaire, cancel the old number and write the new number on top. Do not erase any number and keep both numbers legible. Verify that the new numbers are for the same reference period before making changes. Even in those instances where the new data is zero, do not argue with the farmer, record the new numbers consistently.

Identification information

Item 1 - 9 will be entered on each questionnaire prior to the interview. The Supervisor will assist the interviewer in completing these entries.

1. Province

Write, in the space provided, the name of the province you are employed in, and enter the province code in the box provided.

2. District

Write, in the space provided, the name of the district in which you are operating, and enter the district code in the boxes provided.

3. Census Supervisory Area (CSA)

Your supervisor will give you the number of the CSA in which your work area is located. Enter this number in the boxes provided.

4. Standard Enumeration Area (SEA)

This is the area allocated to you for enumeration. Enter the number in the boxes provided. If the SEA is a single SEA, enter '0' in the first box and the SEA number in the second box. If your assigned SEA is composite, then enter the first digit in the first box and the second digit in the second box.

5. Household Serial Number

Enter the household serial number as shown on the **LIST OF SELECTED HOUSEHOLDS**, in the boxes provided.

6. Village/Locality

Write the name of the village/locality in which the household is located. This is also indicated on the **LIST OF SELECTED HOUSEHOLDS**.

7. Name of Head of Household

Write, starting with the family or second name, the full name of the head of the household you are interviewing. This is also shown on the **LIST OF SELECTED HOUSEHOLDS**. If the household head is dead, the household will still be there. Establish who is the new head and write the new name but indicate "new head" against the new name and "dead" against the old name.

8. Sex and Age of Head of Household

Indicate the sex of the head of the household by entering the sex code in the box provided. Enter code '1' if the head is male, or code '2' if the head is female. Find out how old the head of the household is and enter the age (**in completed years**) in the boxes provided. If there is a new head due to death or other reasons, cancel the old age and gender data and write the new data. All ages above 90 are recorded as 90 years.

9. Category

Indicate in which category the household's holding falls. 'A' stands for small scale holding while 'B' stands for medium scale holding. This information is provided on the **LIST OF SELECTED HOUSEHOLDS**. Enter code '1' for small scale holding and code '2' for medium scale holding, in the box provided.

10. Name of Current Main Respondent

Identify the household head but if the head is not there, the interviewer should identify a principal household member who is knowledgeable and can answer questions. Verify if the household was interviewed in August/September 1999/2000 and write, starting with the family or second name, the full name of the person who is providing you the information, even if it is the head of the household.

11. Main Respondent who Participated in PHS Aug/Sept 2000

Ask the respondent to confirm if he/she was the main respondent who participated in the August/September 2000 survey. Advise the respondent to encourage other household members to participate in the interview.

Item 12 and 13 will be completed after the interview.

12. Response Status

Record the response status for the questionnaire by using the following codes:-

1 - Complete Response: i.e., the interview was successfully completed.

2 - Refusal: i.e., the household refused to co-operate.

3 - Household moved out of SEA: i.e., the household established itself or settled somewhere else. If the household moved to another location within the SEA we will still cover the household. If the household moved to another CSA but is reachable, you will cover the household.

4 - Non-contact: i.e., for some reason, no responsible adult member was available during the period of the survey. The Supervisor is expected to investigate all non-contacts. The Supervisor has to ensure that the interviewer visits these non-contact households at least three times during the course of the survey.

5 - Household dissolved: e.g., after divorce or death of the head of the household, the remaining members may be absorbed in other households (and in the case of a one member household, when this person dies, the household is no longer there).

Write the response status in the space provided and enter the appropriate code in the box provided.

13. Assignment Record

Write your name against '**NAME OF Interviewer**' and the date on which you completed the interview against '**DATE COMPLETED**'. Leave the spaces for '**SUPERVISOR**' blank. The Supervisor will complete this part.

5.3 Sections 1 - 14 of the questionnaire

Specific instructions on each of the 14 sections of the questionnaire are outlined below:

Section 1: Demographics

This part of the questionnaire tries to obtain basic information of household members and number and characteristics of household members who have passed away since September 2000. This will help us assess degree of human loss in rural Zambia.

Definitions

Household

A household consists of a group of persons related by blood, marriage, or adoption, including other persons, such as house-help or farm laborers, if any, who *normally* live together in one house or closely related premises and take their meals from the same kitchen. This group of persons look at one person who they regard as the head of the household. It may also consist of one member.

The household is our unit of enumeration and interviewers have to be clear about what constitutes a household. A household is not necessarily a family. Interviewers have to look at the structure and be satisfied that this group of persons live together and eat together from the same kitchen. Some respondents have pride in showing how large their families are and will include persons who do not live there as members of the household.

In the case of polygamous households, what will qualify this family as a single household is whether there is common provision for food and other necessities. If this family makes common provision for food and share production resources e.g., land, equipment, labor, all the family members will be considered as belonging to one household. The responsibility of cooking for everyone is shared between the wives although the cooking may take place in different kitchens. Typically there is a duty roster to cook for the rest of the household members.

If each wife cooks and eats with her children separately, each wife and children constitute an individual household.

Household Member

A household member is:

- any individual who in the last 12 months has lived with the household for at least six months regardless of whether they have intentions to stay or not;
- an individual attending school away from home;
- newly born babies;
- individuals who are newly wedded-in;
- individuals who have stayed for less than six months but have come to stay with the household.

A non-household member is:

- an individual who may have left the household with no intention of rejoining the household;
- individuals who are married away.
- all other household who do not meet the criteria for household membership

Head of Household

The head of the household is a person who is considered to be the head by the members of the household. The husband, in a matrimonial household is usually taken as the head of the household. In his absence it is the wife or the eldest member of the household who assumes responsibility of head of household.

Adult

An individual member of a household is considered an adult if he or she is 12 years and above (born before 1989). Members below 12 years of age are considered children.

Chronical Illness

This is illness which fails to respond to treatment and frequently recurs leading the victim to being bed-ridden and requiring nursing or special care for feeding and other needs.

Section 1.1 Children in the Household born after 1988

We would like first to obtain specific gender and age distribution of the children in the household and to know how the total number of children has changed since August/September 2000.

Remind the respondent of the number of under 12 boys in August/September 2000.

1.1.1: find out the total number of boys born after 1988 who are currently members of the household. Enter the number in HH01.

Remind the respondent of the number of under 12 girls in August/September 2000.

1.1.2: find out the total number of girls born after 1988 who are currently members of the household. Enter the number in HH02.

1.1.3: find out the number of children who were born after 1996. Enter the number in HH03.

1.1.4: find out the number of children who have been chronically ill for at least the **past 3 months**. Enter the number in HH04.

Section 1.2 Adults in the Household born before 1989

We start by identifying members who were counted in August/September 1999/2000. Remind the respondent about the total numbers of male and female adults that were counted in August/September 2000 and mention that you are also interested in knowing about any new members who have joined the household since that time.

Names

Find out the names of all the adults who were counted in August/September 2000 (including those who may have left) and write these names in the column "*Name*". Start with the name of the household head. The recommended order of listing is to list all males first and then list all females according to the numbers provided in the blocked boxes. Please check that the sum of these names is equal to the total number of adults in the 1999/2000 PHS and insist on getting names of only those household members born before 1989. After listing all the old members, complete D01 by entering "1" against all the old members. Now ask for the names

of the new household members and add their names to the list. Complete D01 by entering "2" against all the new members.

Order of Questioning

It is recommended that you ask the same question to all members before moving on to the next question, e.g., ask D02 for all members before going to D03. This order of questioning helps improve recall for the respondent.

D01: Do not ask this question. Complete this record by indicating with "1" for all members counted in 1999/2000 PHS and "2" for all new members.

D02: Ask (by referring to the name) if each of the individual members is still a member of the household. Enter "2" if the response is No. If the response is yes enter "1" and go to D04. Use the definition of a household to guide you and the respondent to answer this question. Do not ask the respondent if he/she is still a member.

D03: Ask this question if D02 = "No". If a particular person is not a member of the household anymore i.e., D02 = "No", ask why. Enter the appropriate response code. The codes for potential responses are at the bottom of the table. If the member is deceased (D03 = 4), skip all other questions and ask D10 and D11. Remember to include these members in Section 2 on "Previous Deaths Within the Household."

Emphasis: Questions D04 - D09 are only asked for those members who are still alive.

D04: Ask the year in which each member was born and record the response in four digits, e.g., 1996.

D05: Complete the gender status of the household members. If you can observe the gender status, you should record the response without asking. If the interviewer is in doubt, ask for the gender status. Enter "1" if the response is male and "2" if the response is female.

D06: Ask about the member's relationship to the household head. Enter the appropriate response code. The codes for possible answers are listed at the bottom of the table. There is need to probe further to ascertain the exact relationship, e.g., to differentiate between step son/daughter and own son/daughter.

D07: Ask about the current marital status of each adult household member and record the code corresponding to the response. For those household members who are married, establish whether they are married monogamously or polygamously. Enter the appropriate response code.

D08: Ask how many months each member has stayed outside the household. If the member comes and goes, estimate the total months the member has stayed outside the household. Record the response to the nearest month, e.g., 4.

D09: Ask the highest level of education the member completed. For example, a member who is attending Grade 10 will have completed Grade 9. We are interested in knowing the course level that has been completed. We are not counting the number of years spent at school. Enter the appropriate response code.

D10: Ask of each household member if they received any cash or wages in kind over the past 12 months. If the household member worked but did not receive any cash or wages in kind, the member is considered not having worked. Enter "1" if response is yes and "2" if response is no.

D11: Ask of each member if they received any cash or goods from a business activity over the past 12 months. If you encounter a respondent who reports they jointly run a business with the spouse, probe and establish who runs the business. The owner of these business is the one who controls buying and selling and the overall earnings. Often the responsibility of running the business is given to one household member although other household members may have shares or other interests in the business activity. Enter "1" if response is yes and "2" if response is no.

1.2.2: find out the number of adult members who have been chronically ill for at least **the past 3 months**. Enter the number in HH05.

Section 2: Previous deaths within the household

Please note that in this Section you ask about members who have died **since 1996**. The identification numbers (*MEM*) and names of adult members who passed away after the 1999/2000 PHS should be transferred from the previous table and entered in the new table. If there is no adult member who passed away since August/September 2000, ask if there is any other household member who died since 1996. If there is no member who died in the last five years, skip the rest of the questions and go to section 3, otherwise ask the following questions starting from the most recent death. You ask all these questions for all household members (adult and children) who passed away in the **last five years**.

This is a sensitive section and interviewers are advised against using crude phraseology which could disturb the atmosphere. You should empathize and look sorry as you complete this section.

2.1: Ask if there is any household member who passed away **since 1996**. Record the response in HH06. Enter "1" if response is yes and "2" if response is no. If there is an adult who died **since September 2000** (from previous table), do not ask this question. Record the response "1" and continue with the rest of the questions.

MEM: If this person was mentioned in the demographics table, please put his or her id number (*MEM*).

Name: Record the name of the deceased and refer to it when asking questions that follow.

P01: Ask which year this member died. Please record the year and make sure that the year is either 1996 or later.

P02: Ask which year this household member was born. Record the year e.g., 1980.

P03: Ask for the sex of the deceased. Enter "1" if response is male and "2" if response is female.

P04: Ask what was the relationship of the deceased was to the head of the household. Enter the appropriate response code. The codes for the possible answers are listed at the bottom of the table.

P05: Ask what the cause of death was. There are five possibilities, i.e., disease, accident, suicide, murder and other unclassified. Enter the appropriate response code. In the case of witchcraft, probe and find out the form in which the witchcraft manifested itself.

Section 3: Off-farm income

Definitions

Off-Farm Income

Off-farm income is all cash or goods earned from working outside one's own farm i.e., another farm or non-farm business. This is a broad category that includes all the individual components listed below. It covers wage labor, casual labor, formal employment and pension, off-farm business activities, and remittances. These data are collected in three separate sub-sections within the Off-Farm Section. Selling one's own produce is not an Off-Farm Income earning activity.

Section 3.1: Wage Labor, Casual Labor, and Formal Salaried Employment

Depending on the type of economic livelihood a household and its members are engaged in, wages from off-farm work can be an important source of income. Section 3.1 estimates the total wage income that individual household members earned during the last 12 months. This income does not include cash or goods earned from operating a business, nor does it include remittances - each of these are obtained in subsequent sections. Members who are deceased will be excluded from this section. The following types of income should enter into this table:

Wage Labor

Work which entitles the member to be gainfully engaged for a specified period of time usually 1 - 3 months and to be paid weekly, fortnightly or monthly.

Casual Labor

Work whose contract entitles the employer to pay the household member a remuneration in cash or in-kind for completing a particular assignment.

Formal Salaried Employment

A job for which the member is entitled to receive a salary regularly e.g., every month usually in cash.

MEM & Name: We already know from the demography Section 1.2 (column D10) which members received cash or goods from selling labor over the last 12 months. Copy the identification numbers (MEM) and names from Section 1.2 to the first two columns in Section 3.1. If there is no household member who received cash or goods from selling labor, go to Section 3.2.

WACT: Ask the respondent to tell you the four most important activities this member was involved in at anytime during the past 12 months. If there are more than four activities, just be sure to collect the four most important ones. Enter the appropriate response code. The codes for WACT are listed on the code sheet.

W01: Ask where this activity took place. The respondent is going to identify locations by name. You should assign the name of the location between the codes listed. For example, if the interview takes place in Kabwe rural and the respondent mentions that he did some part time work in Lusaka, the appropriate code would be 5 = other district BOMA/town. Enter the appropriate response code. The codes for W01 are listed at the bottom of the data table.

W02: Ask if the member received the same regular salary for any period during the **past 12 months from April 2000 to April 2001**. If the response is "yes", enter the amount of the regular salary and skip the irregular earnings columns (W03 - W14) and ask about wages in kind (W15). If the response is "no" fill in the amount received for each activity for each month. If they did not perform that activity in a given month, enter zero for that particular month.

W15: If the household member earned some wages in kind, record the approximate value of the wages in kind in Kwacha.

Section 3.2: Formal or Informal Business Activities

This section obtains information about all the business or self-employment activities that household members were involved in **during the last 12 months**. It will include activities like fishing and selling, charcoal burning and selling, buying and selling different products, running kanthemba or grocer's shop. In short, all income that is *not* from wage labor, own farming and marketing activities, remittances, or pensions, should enter into this table.

MEM & Name: We already know from the demography Section 1.2 (column D11) which members received cash from a formal or informal business activity over the last 12 months. Copy the identification numbers (MEM) and names from Section 1.2 to the first two columns in Section 3.2. If there is no household member who received cash or goods from formal or informal business activities, go to Section 3.3.

BACT: Ask the respondent to tell you the most important activities this member was involved in at anytime **during the past 12 months**. Enter the codes for three most important activities if there is more than three activities. The codes are listed on the code sheet.

B01: Ask where this business activity took place. The respondent is going to identify locations by name. You should assign the name of the location between the codes listed. For example, if the interview takes place in Kabwe rural and the respondent mentions that he did some part time work in Lusaka, the appropriate code would be 5 = other district BOMA/town. Enter the appropriate response code. The codes for B01 are listed at the bottom of the data table.

B02-B13: Ask the respondent which months he/she **did not operate** this business activity. Mark the months of inactivity as "3". Follow up and identify the months when business was low. Mark the low business months as "2". Follow up and identify which months business was high. Mark the peak business months as "1".

In the following columns, we are interested in getting the margins between gross earnings and total expenses. If expenses are incurred once over a four month period, establish the average expenses for a month. Be prepared to encounter losses where total earnings are less than expenses as not all business activities yield positive margins.

B14: Ask the respondent how much he/she earned in total in a typical month when business was low. Enter the amount earned in Kwacha.

B15: Ask the respondent how much his/her costs or expenses were in total in a typical month when business was low. Enter the amount earned in Kwacha.

B16: Ask the respondent how much he/she earned in total in a typical month when business was high. Enter the amount earned in Kwacha.

B17: Ask the respondent how much his/her costs or expenses were in total in a typical month when business was high. Enter the amount earned in Kwacha.

Section 3.3: Remittances

We would like to capture the flow of cash or goods from or to the household from non household members over the past 12 months. The remittances flow from the household to relatives or non-relatives and to the household from household members who are either relatives or non-relatives or charitable organizations.

Remittance

A remittance is a gift in cash or goods given or received by a household member.

3.3.1: Ask if any of the household members sent cash or goods to any non household member or charitable organization. Record the response in HH07: Enter "1" if response is yes and enter "2" if response is no.

3.3.2: Ask if any of the household members received any cash or goods from any non household member or charitable organization. Record the response in HH08: Enter "1" if response is yes and enter "2" if response is no.

There is need for serious probing in this section. It is not easy to get a household to accept that they received help or a gift from a non household member. There might be a perception that it is not a good sign to be dependent on outside help.

If the answers to both 3.3.1 and 3.3.2 are "no", skip the remaining questions and go to Section 4.

If the household did not receive any remittances but sent out some goods or cash, record the values of the remittances to non household members and *vice-versa*.

3.3.3: Value of remittances

NAME: Record the name of the non household member or organization that received cash and goods from a household member OR that sent cash or goods to the household. Names that are listed in this column are only of non household members.

R01: Ask how the individual whose name is recorded is related to the household head. Enter the appropriate response code. The possible responses are coded and listed below the table.

R02: Ask where this non-household person resides. The respondent is going to identify locations by name. You should assign the name of the location between the codes listed. For example, if the interview takes place in Kabwe rural and the responded mentions that he received cash from his son in South Africa, the appropriate response would be 6 = another country. Enter the appropriate response code. The codes for R02 are listed at the bottom of the data table.

The direction of flow of cash or goods between parties is not one-sided. You may encounter goods flowing in either direction between the same persons in and outside the household. The household may also send some goods or cash to the same non-household member who sends cash to the household. For example, a household member may send some agricultural produce to a non-household member in another Province and the same non household member may send cash or seed to the household.

What we are interested in are the values of the goods and cash sent to or from the household **in the last twelve months**. You have to ask the respondent to tell you the individual remittances sent or received and list them in the open space. Sum up the value for all the goods and cash received or sent to this non household member **over the last twelve months**. You should not do all the maths while interviewing the respondent. The summing up of values in each list can be completed after the interview.

Goods and cash sent to children attending school away from home are not considered remittances since these children are household members.

R03: Record the total value of cash and goods in Kwacha sent to each non household member.

R04: Record the total value of cash and goods in Kwacha received from each non household member.

Section 4: Farm land and use

This Section obtains information on fields that the household owns or rents i.e., fields for which the household has the rights to use. We are interested not only in crop lands, but also fallowed land, virgin land, garden land, orchard and rented land. We would like to know the tenure status, method of acquisition and allocation authority on each of these fields.

We are also interested in finding out how easy it is for households to access additional land if they wished to do so. Are there any procedural or physical limitations to acquiring more land or do opportunities for land expansion exist?

Definitions

Field

A field is a piece of land with distinct boundaries defined by land-use.

Crop Land

This is land on which field crops e.g., maize, cassava etc are planted. This includes crop land found on wet plains in Western Province. This land does not include the garden or orchard land.

Fallow Land

Fallow land includes land that has been cropped before but is not being cropped now. This could be intentional to allow the land regain its fertility.

This land could be fallowed unintentionally because the household does not have tools and labor to work on it.

If a household abandons land because it has lost its original fertility but still maintain a claim on it, this land will also be considered to be under fallow.

Virgin Land

This is land that the household has never cultivated but belongs to the household. This land is often uncleared.

Garden Land

This is land where vegetables e.g., cabbage, rape, carrots etc. are grown. Usually this land is located in a dambo, wetland or stream-bank.

Orchard Land

This is land designated or allocated for growing fruit trees only. If the trees are scattered around on some undefined area, they do not constitute an orchard.

Rented-in Land

This is land that a household has, at cost, brought under its use temporarily (for one or more seasons) without claiming ownership.

Borrowed-in Land

This is land that a household has, at no cost, brought under its use temporarily (for one or more seasons) without claiming ownership.

Tenure Status

This is the condition under which a household has use of land. Owning land with title deeds means that the household has legal possession. Owning land without title deeds means the household has customary possession of the land.

Unallocated Arable Land

This is land that is suitable for crop growing and has not been allocated to any household and is not being utilized.

New Settlers

These are newcomer households coming from places outside the village to settle in this village.

Section 4.1 Sketching Fields

This sketching is not to be done to scale. We are only interested in indicating where the fields are in relation to the homestead in the space provided. We would like to capture the situation as it was in **1999/00**. Please ensure that you are capturing the situation as it was the previous season **NOT** now.

The following steps will guide you in putting up this sketch.

You should identify which direction is East or West. The North is always on the top of the page.

A. If the household indicates they grew some crops in **1999/00**, sketch the crop land first.

Step 1: Ask which crops the farmer grew in **1999/00**. List these crops.

Step 2: Ask in how many fields he/she grew each crop.

Step 3: Ask in which direction each of the fields indicated in Step 2 is in relation to the homestead.

Step 4: Sketch the field in that direction and write the crop(s) grown in it.

Step 5: Assign a number for each field.

B. Ask the respondent how many fields he/she used before but did not use in **1999/00**. These are the fallow fields.

Step 6: Ask in which direction each of the fallow fields in 1999/00 are in relation to the homestead.

Step 7: Sketch the field in that direction and write the land use.

Step 8: Assign a number for each fallow field.

C. Repeat B for virgin, orchard, garden and rented out land.

D. Once all fields have been identified, and numbered, then establish what the area for each field was. Do not ask about the area before you have identified all the fields. The respondent may not be very keen to identify all the fields for you if he feels concerned about such an enumeration of his/her fields. Write the area of each field against each sketch. In some instances, the respondent may not be able to give the area. Use some alternative ways to get

the area. For the garden field, the area we are interested in is the area inside the boundary, not the area under a particular vegetable.

4.2: Based on the sketches on the previous page, record the total number of fields. Please make sure to ask the following questions on all fields.

F01, F02 and F03: Please transfer the sketch information to the first three columns in Section 4.2. Each field will be recorded separately.

F04: Find out what is the tenure status and record the appropriate response code.

F05: Ask whether the household can sell any of the fields. If the tenure status is ownership with title deeds, i.e., F04 is "1", then the households can sell that field. Enter "1" if the response is yes and "2" if the response is no.

F06: Find out how the household acquired this field. We are interested in the method of acquisition the household used to get each field. Enter the appropriate response code.

F07: Find out from whom the household obtained the field. Enter the appropriate response code. Codes are listed at the bottom of the table.

F08: Find out in which year the household acquired each field. Please ask the respondent to give the best guess if he/she cannot remember a specific year. If the field was inherited, ask in which year the present household inherited this field and not when the original benefactor acquired the field. Record the year e.g., 1975.

F09: If this field was rented-out (**F01=4**) or rented-in (**F04=3**), ask how much the household received or paid, otherwise go to the next field. Please convert all payments in kind to Kwacha and record what the payment was per season.

4.3: Ask this question if the household had fields classified as fallowed in Section 4.2. Find out why this household did not cultivate the fallowed field(s). Recall that fallow includes "abandoned" fields. Enter the appropriate response code in HH09.

4.4: Find out if the village authorities have any unallocated arable land which could be allocated to households in the village. Record the response in HH10. Enter "1" if response is yes. If response is no, enter "2" and go to Q4.6.

4.5: If the response to Q4.4 is "yes" find out if some of this land could be allocated to the household for growing crops. Record the response in HH11. Enter "1" if response is yes or "2" if response is no.

4.6: Find out if there is land available in the village that the household can rent or borrow if they wanted to. The household can rent or borrow from a non-relative. Record the response in HH12. Enter "1" if response is yes or "2" if response is no.

4.7: Ask this question if Q4.5 = "Yes" and Q4.6 = "Yes" i.e., if there is unallocated arable land and also land available for rent within the village, otherwise go to Q4.9. Find out what is easier for the household to do if the household had used all its current land and wanted to cultivate

some additional land above what the household already has. Would the household seek unallocated land or rent/borrow from another household? Enter the appropriate response code in HH13. If the response is "1" go to Q4.9.

4.8: Ask this question if the household prefers to rent or borrow additional land. Find out why the household would opt to rent or borrow land. Enter the appropriate response code in HH14.

4.9: Find out if the household has within the last 10 years been forced to relinquish land that they were officially allocated. We would like to establish how much respect is accorded to land use/ownership rights. Record the response in HH15. Enter "1" if response is yes or "2" if response is no.

The following questions are directed at establishing the closeness of the relationship between both household spouses to the land allocating authorities. We would like to answer whether close relations with authorities make a difference in terms of how much land a household is allocated. The closeness of the relationship between the household and the authority is in terms of blood, marriage and family ties. We are not interested in mere friendship. The questions are asked for both spouses because of the existence of both patrilineal and matrilineal family systems. In the event that this household is polygamous, but considered as one household, refer questions about the female spouse to the queen mother or the first wife.

4.10: Find out if the household head was closely related to the headman in the area during the time he/she was allocated land. If the respondent is a headman, a close relationship is considered to exist. Record the response in HH16. Enter "1" if response is yes or "2" if response is no. If there is no headman in the area, enter "3".

4.11: This question is appropriate in those cases where the household head has a spouse. Find out if the household head was closely related to the headman in the area during the time he/she was allocated land. If the respondent is a headman, a close relationship is considered to exist. Record the response in HH17. Enter "1" if response is yes or "2" if response is no. If there is no headman in the area or the household head does not have a spouse, enter "3".

4.12: Find out what tribe or ethnic group **the household head belongs to**. Enter the appropriate response code in HH18. Codes are provided on the code sheet.

4.13: This question is appropriate in those case where the household head has a spouse. Find out what tribe or ethnic group **the spouse belongs to**. Enter the appropriate response code in HH19. Codes are provided on the code sheet.

Section 5: Crop stocks and sales

In the 1999/00 PHS, we collected data on what crops the household harvested and what expectations they had for utilization of the crops. Data on crops and quantities harvested will be transferred from the PHS files to the individual questionnaires prior to conducting the interview. **If the respondent does not agree with this data from the PHS consider what he/she is willing to go along with. Put a line across the PHS data and write the new numbers on top of the old numbers.** In August/September 2000, marketing was still ongoing and the PHS survey may have not adequately captured data on crop utilization through sales. This section is interested in capturing the current stocks from previous harvest and selling transactions that the households engaged in for the 2000 harvest. We would like to learn how much of each crop the household sold for cash and bartered for goods and services. These sales will not include reselling of crops the household purchased as these are captured in the business section.

Crop Concepts

The units used to measure quantities are not necessarily reflecting the weight for each crop but the unit reflects the volume which when filled with maize weighs the weight shown in the unit codes.

Mixed beans

Include all kinds of beans except soybeans and ground (round) beans. The quantities of production and sales should relate to dried seed.

Cassava

Cassava is brought to the market in several forms, i.e., tuber, chips, flour. For statistical reporting, only one form is adopted as the standard form. Accordingly, quantities of production and sales of cassava should relate to raw cassava in 90kg bags and decimal fractions of a bag.

When a respondent reports these quantities in the form of flour and/or chips, they should be converted to raw equivalents before recording. A conversion table is provided in **Appendix 2 & 3**.

Seed-cotton

Seed-cotton production and sales should be recorded in seed-cotton form in kilograms. Where the quantity is reported in bales/wool packs, it should be converted to kilograms before recording. Find out how much a bale weighs and convert all the bales to kilograms.

Groundnuts

Groundnuts are brought to the market in shelled as well as unshelled form. When a respondent reports these quantities in unshelled form, record them as such. If the quantities are reported in shelled form, record the quantity as such as well. If the respondent reports quantities in both shelled and unshelled form, use the conversion table in **Appendix 4** to convert unshelled to shelled.

Maize

Maize production and sales should be recorded in dried grain form.

Rice

Rice production and sales should relate to paddy (i.e., rice in husk). Where quantities are reported in the form of milled or hand-polished rice (i.e., rice not in husk) record them as such. Whenever the respondent reports the quantity in paddy form, record the quantity as such.

Sorghum

Sorghum production and sales should be recorded in threshed grain form.

Millet

Millet production and sales should be recorded in threshed grain form.

Soybeans

Soybean production and sales should be recorded in dried seed form.

Sunflower

Sunflower production and sales should be recorded in dried seed form.

Tobacco (Burley and Virginia)

production and sales should relate to cured tobacco in kilograms. When the respondent reports the quantity in bundles/bales/packs, this should be converted to kilograms before recording. Find out what the weight of each pack weighed and report the quantity in kilograms.

Fruits

include oranges, tangerines and mandarins, grapefruit and lemons, bananas, pineapples, mangoes, etc.

Vegetables

includes all leafy crops e.g., cabbage, rape, etc. Green maize, fresh groundnuts, fresh ground (round) beans will also be included under vegetables.

crop sale

This is the selling of field crops for cash or in exchange for goods and services including loans, labor etc.

5.1: For the variables CROP to S02, you should pre-enter the data from the information sheet. The Supervisor will assist you enter the values. If the respondent reports that there are other crops that he/she grew but were not pre-entered, you should add them to the list.

CROP: Enter the code for each of the crops the household harvested

CRNAME: Name the crop eg., maize

S01: Record the quantity harvested from the individual household information sheet prior to the interview.

S02: Record the appropriate unit of measure for each quantity recorded in S01.

S03: Find out if the household still has this crop in stock from the **previous (2000) harvest**. Enter "1" if the response is yes. If the response is no, enter "2" and go to S06.

S04: If the household has some stocks of this crop from the **previous (2000) harvest**, find out what quantity there is. Record the quantity.

S05: Record the unit of measure used for the quantity reported in S04. The codes for the units are provided at the bottom of the table.

S06: Find out if the household sold in cash/barter any of this crop. Enter "1" if the response is yes. If response is no, enter "2" and go to the next crop.

S07: If S06 = "yes", find out what quantities of this crop were sold for cash by the household. Add all the individual quantities the household sold in return for cash from harvest time to date. You should make some quantity conversions when there is more than one cash sale with different units of measure. Enter the quantity mentioned.

S08: Record the unit of measure for the quantity recorded in S07. The codes for the units of measure are provided at the bottom of the data table.

S09: Find out what quantity of this crop was sold through barter. Add all the individual quantities the household sold in return for goods and services from harvest time to date. You should make some quantity conversions when there is more than one cash sale with different units of measure. Enter the quantity mentioned.

S10: Record the unit of measure for the quantity recorded in S09. The codes for the units of measure are provided at the bottom of the data table.

S11: Ask this question only if the household sold some of this crop **for cash**, otherwise skip to the next crop. Find out what price per unit the household received for the largest quantity sold for cash. Record the price in Kwacha.

S12: Record the unit of measure for the price recorded in S11. The codes for the units of measure are provided at the bottom of the data table.

5.2 Fruits and Vegetables Sales

We would like to know the fruits and vegetables the household produced and the value of what was sold for cash or bartered **in the last twelve months**. Vegetables will also include green maize, fresh groundnuts, fresh beans, pumpkin leaves, cassava leaves, sweet potato leaves, and cowpea leaves. In the case of fruits, include only those grown by the household but exclude those that are gathered.

VEGETABLE/FRUIT NAME: Write the names the fruits and vegetables that the household produced **in the last twelve months**. Ask if the household produced cowpeas, cassava, mixed beans, pumpkins and sweet potatoes. If the household produced any of these products, list the leaves to indicate they have been grown but do not ask if they produced these leaves. If they did not produce any of these products, exclude the leaves from the list of vegetables produced.

CROP: Enter the code for each of the fruit or vegetable the household produced.

VF01: Find out if the household sold any of each vegetable or fruit listed. Enter "1" if the response is yes. If the response is no, enter "2" and go to the next vegetable or fruit.

VF02: find out how many months in the last 12 months, the household sold this vegetable or fruit. Record the response to the nearest month.

VF03: Find out what the average value of sales per month was. Record the value in Kwacha.

5.3 Cassava Production and Sales

We know from the PHS the size of the land the household had under mature cassava in August/September 1999/00. Now we want to find out the quantity of raw cassava harvested and sold.

Remind the respondent that in **August/September 2000**, the household had land under mature cassava. Do not mention the hectareage.

5.3.1: Find out what quantity of **raw cassava** the household harvested during the **last agricultural season** (October 1999 to September 2000). If the respondent reports in chips convert the quantity into 90kg bags of raw cassava. Record the quantity in HH20.

The following equivalents may be used:

1 standard bag of chips = 0.94 standard bags of raw cassava.

1.8 standard bags of chips = 1 standard bag of cassava flour

5 standard bags of tubers (raw cassava) = 3 standard bags of cassava flour

5.3.2: Find out what amount of **raw cassava** the household sold out of the total harvest during the **last agricultural season** (October 1999 to September 2000). If the respondent reports in chips convert the quantity into 90kg bags of raw cassava. Record the quantity in HH21.

5.3.3: Find out what area the household has planted under cassava between September 2000 and now. Convert all other area units of measure to hectares and record the response in hectares in HH22. Use the conversion table in **Appendix 5**.

5.3.4: Find out what quantity of **raw cassava** the household harvested between September 2000 and now. If the respondent reports in chips convert the quantity into 90kg bags of raw cassava. Record the quantity in HH23.

5.3.5: Find out what quantity of **raw cassava** the household sold out of the total harvest between September 2000 and now. If the respondent reports in chips convert the quantity into 90kg bags of raw cassava. Record the quantity in HH24.

Section 6: Crop purchases (for home consumption)

While some households are self-sufficient in the production of main food crops, others purchase food to satisfy their food requirements. We would like to know which households purchase main foods and the quantities purchased since the last 12 months. We would like to capture the total purchases only for home consumption. Purchases for resale are captured in the business section. Working for food is not considered a purchase but earnings in kind.

P01: Find out if the household purchased any of these specified products. You can identify first what products the household purchased and then ask the product specific questions later. Enter "1" if the response is yes. If the response is no, enter "2" and go to the next crop.

P02: Ask the respondent to tell you all the quantities purchased with cash and bartered-in **between last year's maize harvest and Christmas**. Add these quantities and record the sum in one unit.

P03: Record the unit of measure for the quantity recorded in P02. The codes for the units of measure are provided at the bottom of the data table.

P04: Ask the respondent to tell you all the quantities purchased with cash and bartered-in **between Christmas and now**. Add these quantities and record the sum in one unit.

P03: Record the unit of measure for the quantity recorded in P04. The codes for the units of measure are provided at the bottom of the data table.

P06: Find out what the price per unit was the last time the respondent purchased a particular product. Record the price in Kwacha. If the purchase was only in exchange with goods, do not ask this question.

P07: Record the unit corresponding to the price mentioned in P06 above. See codes provided.

Section 7: Service provision

This section of the survey captures basic information on the participation of farmers in farmer organizations. In this context, a "farmer organization" can be any organization that provides some services to farmers. The organization does not have to be a legally recognized cooperative or association. The key characteristic is that at least some of the services provided assist in agricultural production. An organization can be government, non-government or private/commercially based. Our interest is not to find out if households are members of these organizations but whether they get any services from these mediatory role players. Rural Investment Fund (RIF) groups, women's clubs, church groups that provide funds for agricultural investment should be included as service providers. In cases where organizations overlap, ask the respondent for the organization which plays the most important or broadest role. For example, where a Cooperative League of United States of America (CLUSA) group receives Conservation Farming Unit (CFU) assistance, CLUSA might be cited as the type of group providing the services.

Definitions

Farmers Association

This is an Association or group of persons who voluntarily come together with an objective of promoting the economic and social welfare of its members. These could include farming co-operatives.

Private Trader

This is usually an individual or firm (company) involved in buying and selling of commodities (in this case agricultural commodities).

Agricultural Processor

This is an individual or firm that adds value to agricultural commodities by way of processing them. This category includes ginners, millers, vegetable oil producers, rice polishers, groundnut shellers, etc.

Out-grower Scheme

This is where individuals or firms enter into an agreement with farmers to undertake an agricultural activity/venture like growing of a particular crop, on condition that the financier facilitates the agricultural venture by supplying inputs and know-how while the farmer produces the crop. The understanding is that the farmer will sell the produce to the financier. Examples are: Lonrho, National Tobacco Company, Clark Cotton, Omnia, etc.

NGO

A Non-Governmental Organization (NGO) is a group of individuals in a non-profit making organization, whose purpose is to render assistance materially and in some cases financially to the under-privileged. Their main objective is alleviation of poverty and the uplifting of the living standards of the under-privileged. They rely on donor support which may be bi-lateral or multi-lateral in nature (among the donors that render such support are NORAD, IFAD, FINNIDA, SIDA, etc). Their efforts are also supported by Government. Examples of NGOs are: Program Against Malnutrition (PAM), NGO-CC, Women for Change, etc.

7.1 We would like the household to tell us what service(s) they obtained and from whom they obtained the service(s). We have provision for the two most important service providers for each service.

SERVICE: Find out if the household received/used this service in 1999/2000. If the household did not receive/use this service, skip to the next service.

SR01: Record the response to the question asked in SERVICE above. Enter "1" if the response is yes. If the response is no, enter "2" and go to the next service.

SR02: Find out who was the most important supplier/organizer of this service. Enter the appropriate response code. Use the codes provided for service providers.

SR03: Find out who was the second most important supplier/organizer of this service. Enter the appropriate response code. Use the codes provided for service providers. This source is second in importance to the source in F02. It is possible the household only used one source in which case you record "88" for not applicable.

Section 8: Conservation farming

Definitions

Mixed cropping

A cropping system where more than one crop are planted in the same rows/ridges of the same piece of land.

Improved Fallowing

The practice of planting a crop such as sesbania sesban for the sole purposes of rejuvenating the soil fertility.

Pot-holing/Planting Holes

A land preparation practice where the crop is planted in planting holes or basins, with the latter also serving as a moisture retention device. This practice does not involve use of plough or conventional ploughing.

Crop Rotation

The practice of rotating crops that use nutrients differently e.g., legumes with cereals or crops that are prone to different pest attacks.

Leaving crop residue in the field

A practice in which the crop residue is left in the field to be incorporated in the soil during land preparation. Most crop residues can be left in the field except for cotton and tobacco stalks which have to be removed and destroyed to reduce pest build-up.

Other minimum tillage practices

These other techniques include practices such as ripping.

SC01: Ask the respondent if he or she used any of the soil conservation and cultivation practices listed **during the 1999/2000 agricultural season**. Enter "1" if response is yes and enter "2" if the response is no.

SC02: Ask the respondent if he/she practiced **this current season** (2000/2001). Enter "1" if response is yes and enter "2" if the response is no. If the response is no for both SC01 and SC02, go to the next service.

SC03: This question is asked if the respondent practiced either in 1999/00 or 2000/01. Ask from whom the respondent learnt about the practice. Enter the appropriate response code. The codes are listed below the table. If there are several sources of information, ask the respondent for the most important one.

SC04: This question is asked if the respondent practiced either in 1999/00 or 2000/01. Ask the respondent whether this practice is worthwhile. Enter "1" if response is yes and enter "2" if the response is no. We would like to get his or her judgment about the practice.

Section 9: Cotton producers' relationship with ginning firms

We would like to learn about the participation of households in cotton production over the **last four seasons**. Cotton production is largely supported by ginning firms who provide pre-harvest loans for inputs. We want to learn the nature of the relationship that cotton producers have with ginning firms in terms of input loans, marketing of cotton and provision of market information about prices, costs of production and pesticide handling. You should interview the cotton producer in the household. If there is more than one cotton producer in a household, randomly select one of them. You can choose the cotton producer who is most convenient.

9.2: Find out in which year any member of the household started to produce cotton. Make sure to capture the **earliest period** any member started to produce cotton. Enter the year in HH25 e.g., 1975.

9.1: Find out if any member of the household has ever planted cotton **during the past four years**. Record the response in HH26. Enter "1" if the response is yes. If the response is no, enter "2" and go to Section 10.

9.3: We would like to ask about the specific experiences the members have had in producing cotton in the **last four seasons**, starting from the current one.

CT1: Find out if any member of the household planted cotton during that year. Be clear to the respondent which season you are referring to. Enter "1" if the response is yes and go to CT3a. If the response is no enter "2".

CT2: Ask this question if the household member did not grow cotton that year. Find out the most important reason why the household member did not grow cotton that year. Enter the appropriate response code.

CT3a: Find out how much area was planted under cotton that year. Record the total area that this household member planted under cotton.

CT3b: Record the appropriate code for the unit of measure mentioned in CT3a.

CT4: Find out with which company or dealer this member of the household was registered to receive inputs and supply seed cotton to. Enter the appropriate response code.

CT5a: Find out from whom this household member obtained cotton seed that they planted that year. Enter the appropriate response code.

CT5b: Find out from whom this household member obtained fertilizer that they applied on cotton that year. Enter the appropriate response code.

CT5c: Find out from whom this household member obtained cotton pesticide that he/she sprayed on cotton that year. Enter the appropriate response code.

CT5d: Find out from whom this household member obtained bags/pockets he/she used to pack seed cotton that year. Enter the appropriate response code.

CT6: This question should be asked if the response to CT4 was not equal to 7. Find out from the household member if they were satisfied with the quality of service he/she received from the company or input provider that year. Enter "1" if the response is yes and enter "2" if the response is no.

CT7: Find out to whom this household member sold his/her cotton to. Enter the appropriate response code. **Do not suggest responses to the farmer.** Wait and let the farmer give his/her response. There is a likelihood that farmers may give strategic responses if they sold some of the crop to a buyer other than the one they with whom they had a contract.

Ask the following set of questions if the household member acquired inputs on credit this agricultural season (2000/01). If the household member did not get inputs on credit go to Question 9.9.

9.4: Find out from this household member whether the company told the respondent the price of each of the inputs the respondent received on credit. Record the response in HH27. Enter "1" if the response is yes and enter "2" if the response is no.

9.5: Find out if this household member knows how much he/she owes the company. Record the response in HH28. Enter "1" if the response is yes and enter "2" if the response is no.

9.6: Find out from this household member whether the company told him/her how the cotton input loan was to be repaid. Record the response in HH29. Enter "1" if the response is yes and enter "2" if the response is no.

9.7: Find out if this household member understood how the cotton inputs loan was to be repaid. Record the response in HH30. Enter "1" if the response is yes and enter "2" if the response is no.

9.8: Find out if this household member is aware of the price that the cotton company/agent will offer him/her for seed cotton this year. Record the response in HH31. Enter "1" if the response is yes and enter "2" if the response is no.

Ask the following questions to all households who have produced cotton before.

9.9: Find out if any of the listed service providers have provided information on how to use pesticides. Enter "1" if response is yes and enter "2" if the response is no. Extension service provided through the radio should not be considered.

9.10: Find out if any of the listed service providers have provided information on how to safely handle pesticides and avoid health hazards to users. Enter "1" if response is yes and enter "2" if the response is no. Extension service provided through the radio should not be considered.

9.11: Find out if the household believes that it is worthwhile to apply fertilizer on cotton. Enter the appropriate response code in HH38.

Section 10: Fertilizer acquisition, 1999/2000 season

In the 1999/00 PHS, we asked farmers about the total top and basal fertilizer they used, where they purchased it from and how they purchased it. The data we have is not comprehensive enough to allow us to evaluate the options farmers have in satisfying their demand for fertilizer. In this supplementary survey, we would like to know specific characteristics of each transaction or channel the household used to obtain fertilizer in order to identify the inherent advantages or disadvantages of each channel. We have data for each household on the amount of fertilizer used but we now would like to find out how much was purchased and from whom. In this section, the amount of fertilizer used by the household in 1999/00 is provided and will be used to help the household recall the fertilizer transactions they undertook. The figures you will mention to the respondent will be in bags not kilograms. So convert the kilograms into bags by dividing by 50.

If after probing and confirming with the respondent the household did not use fertilizer in 1999/00, the blocked boxes will have zeros recorded and you go to Section 11.

Definitions

FRA fertilizer loan

This is a fertilizer loan obtained from Food Reserve Agency (FRA) through a local cooperative. These local cooperatives applied for the loan through the District Agricultural Coordinator's Office (DACO).

Other fertilizer loans

Farmers can get a loan in cash or in kind to obtain fertilizer from a local supplier. The provider of the loan can be a trader, a neighbor or relative. This loan is different from the FRA loan.

Direct exchange for fertilizer

Farmers can exchange their maize or other crop for fertilizer with traders. Some traders prefer to get farm produce instead of cash. Traders can organize a group of farmers to bulk their produce in one location where the trader will deliver the fertilizer and pick up the grain. Farmers can also deliver their grain to the trader and load the fertilizer on the return trip.

Cash purchase of fertilizer

Farmers with ready cash can purchase fertilizer from traders.

Fertilizer Gift

The household can be a recipient of a fertilizer gift from a non-household member or NGO which assists farmers.

10.1 We would like to ask questions pertaining to each particular channel the household used to obtain fertilizer. We will ask these questions only if the household **used fertilizer in 1999/00**. If the household did not use fertilizer in 1999/00, go Section 11.

FR01: Find out if the household used this channel to obtain fertilizer **in 1999/00**. Enter "1" if the response is yes. If the response is no, enter "2" and go to the next channel.

FR02: Find out the point from where the household collected the fertilizer. We are interested in the location where the household took personal possession of the fertilizer. Enter the appropriate response code.

FR03: Find out how far is the point of collection from the homestead. Record your response to the nearest kilometer. If the fertilizer was delivered to the homestead, the distance that will be recorded is "0". If the delivery was made to the homestead, do not ask the question, just record "0". If the response is given in miles, convert to kilometers. Convert miles to kilometers by multiplying by 8/5.

FR04: Find out how much it cost per 50kg bag to bring the fertilizer to the homestead. Record the cost in Kwacha. If there is more than one transportation stage, add the cost for each stage and record the sum.

FR05: Find out what amount of basal dressing fertilizer was collected using this channel. Record the quantity of basal dressing fertilizer reported.

FR06: Record the appropriate unit of measure.

FR07: Find out what amount of top dressing fertilizer was collected using this channel. Record the quantity of top dressing fertilizer reported.

FR08: Record the appropriate unit of measure.

FR09: Find out if the household got the basal dressing fertilizer at the time they needed it. Enter "1" if the response is yes and enter "2" if the response is no.

FR10: Find out if the household got the top dressing fertilizer at the time they needed it. Enter "1" if the response is yes and enter "2" if the response is no.

10.2: Find out what type(s) of transportation the household used to transport the largest acquisition of fertilizer to the homestead. Identify the largest acquisition. In the event that the household used than one type of transportation, you should record he type of transportation used at each stage. Enter the appropriate response code. The codes are provided in the table.

Section 11: Milk and egg production and sales

Livestock income is a critical element of a household's welfare. We would like to know the quantities of eggs and milk products the household produced and the value of sales in the last twelve months.

11.1 Ask if the household produced milk products **during the last twelve months**. Enter "1" if the response is yes. If the response is no, enter "2" and go to 11.2.

LV01(LV1): Find out in how many months the household produced milk. Enter the number of months.

LV01(LV2): Find out in how many months the household sold fresh milk. Enter the number of months.

LV01(LV3): Find out in how many months the household sold sour milk. Enter the number of months.

LV02 - LV12 (LV1): Find out how many liters of milk the household produced in each month. Record the quantity in the appropriate month.

LV02 - LV12 (LV2): Find out how many liters of fresh milk the household sold in each month. Record the quantity in the appropriate month.

LV02 - LV12 (LV3): Find out how many liters of sour milk the household sold in each month. Record the quantity in the appropriate month.

LV13 (LV2): Find out what the price per liter was the last time the household sold fresh milk. Record the price in Kwacha.

LV13 (LV3): Find out what the price per liter was the last time the household sold sour milk. Record the price in Kwacha.

11.2 Ask if the household produced eggs **during the last twelve months**. Enter "1" if the response is yes. If the response is no, enter "2" and go to Section 12.

LV01(LV4): Find out in how many months the household produced eggs. Enter the number of months.

LV01(LV5): Find out in how many months the household sold eggs. Enter the number of months.

LV02 - LV12 (LV4): Find out how many eggs the household produced in each month. Record the quantity in the appropriate month.

LV02 - LV12 (LV5): Find out how many eggs the household sold in each month. Record the quantity in the appropriate month.

LV13 (LV5): Find out what the price per egg was the last time the household sold eggs. Record the price in Kwacha.

Section 12: General information

12.1: Find out if the household owns any of these assets. Collect information only for assets which are in working or serviceable condition. Allay any fears the respondent may have with divulging his/her asset holding. Enter "1" if the household has each of the listed assets and enter "2" if the household does not have.

12.3 - 12.6: We would like to know the type of material the household used to build the main house. Identify the main house first and ask about the characteristics that you are unable to see. Enter the appropriate response code for the material used for roofing, wall, door and floor.

Section 13: Crop forecast 2000/01

We would like to know what crops the household has grown **this agricultural season**, what area is under crops, what the expected harvest and expected sales are and how much fertilizer was used. This information is important for planning purposes.

13.1: Find out if the household grew any crops **this agricultural season**. Enter "1" if the response is yes. If the response is no, enter "2" and go to Section 14.

13.2: We would like you to obtain information about the crops that the household grew this year. The approach to collecting crop area data is similar to the field sketching in Section 4.1. However, there is no need to sketch the fields in this section. Use the space around the table and the blank page to record the responses required to complete the data requirements in the table. You are advised to be patient and required to collect comprehensive data.

You should follow the following steps.

Step 1: Ask which of the listed crops the household planted.

Step 2: For the crops the household planted, ask how many fields were planted under each crop. Make sure you include all the fields even small ones. Number each field.

Step 3: Follow-up and ask for the area of each field. Estimating area requires a lot of ingenuity as not all farmers will be able to give the area of their fields.

If a field was in crop mixture, the area of such a field should be apportioned to the constituent crops. For example, if a field was planted with maize and groundnuts in mixture, ask the respondent what part of the area would be under maize or groundnuts, if these two crops were to be planted separately within the same field. If the respondent reports that the area of the field is 4 lima and that maize occupies 3/4 of the field and that groundnuts occupy 1/4 of the field, then the apportionment of this area to the two constituent crops will be:-

Maize is **3/4 of 4 lima** i.e., the area under maize is $3/4 \times 4 \text{ lima} = 3 \text{ lima}$

Groundnuts **1/4 of 4 lima** i.e., the area under groundnuts is $1/4 \times 4 \text{ lima} = 1 \text{ lima}$

Show all calculations for such fields.

Step 4: Repeat step 2 and 3 for all the crops.

Step 5: Ask the area that will be harvested for each crop in each field. Some parts of the field may have been flooded and no harvest is expected from such portions. Clearly, the area to be harvested will be less than the area planted. In other cases, the respondent may harvest poorly but uniformly across the field. In this case, the area to be harvested may not change.

Step 6: Find out the quantity of each crop the household expects to harvest from each field.

Make sure that against each field number that you listed, you have the crop grown, area planted, area expected to be harvested, and the quantity expected to be harvested. Transfer the data recorded in Step 1 - Step 6 to CF01 - CF07.

CF01: For each crop the household reported to have planted, enter "1" and all other crops not planted enter "2".

CF02: Sum the area of all the fields mentioned as planted under each crop. Field sizes for any individual crop may be reported in different units. You should convert the units and record in one standard unit. Record the area to 2 decimal places.

CF03: Record the appropriate unit of measure.

CF04: Sum the area to be harvested for all the fields mentioned under each crop. The field sizes for a particular crop may be reported in different units. You should convert the units and record in one standard unit. Record the area to 2 decimal places.

CF05: Record the appropriate unit of measure.

CF06: Sum the quantity expected to be harvested from all the fields mentioned for each crop. Quantity harvested for an individual crop may be reported in different units. You should convert the units and record in one standard unit. Record the quantity.

CF07: Record the appropriate unit of measure.

CF08: Find out the amount of each crop the household expects to sell. The quantity expected to be harvested is recorded in CF06. Ask the respondent with reference to the total expected harvest for each crop. Record the quantity.

CF09: Record the appropriate unit of measure.

CF10: Find out the amount of basal dressing fertilizer the household applied on each crop. Record the response in kilograms only.

CF11: Find out the amount of top dressing fertilizer the household applied on each crop. Record the response in kilograms only.

13.3 Cassava Forecast

13.3.1: Check if the household has any land under cassava. You can refer to "Section 5.3 Cassava Production", to establish the response. Record the response in HH59. Enter "1" if the response is yes. If the response is no enter "2" and go to Section 14.

13.3.2: Find out the total area the household has under cassava (mature and immature). Record the response in hectares in HH60.

13.3.3: Find out the total area under mature cassava. Record the response in hectares in HH61.

Section 14: HIV/AIDS awareness

Read the message and leave the pamphlets with the respondent. Refer any questions about the content to the local health care provider.

APPENDIX 1

Time Reference for Each Section of the Instrument

Section	Time Period
1.1 DEMOGRAPHICS Children below 12 years old (born 1990)	Now
1.2 DEMOGRAPHICS Adults born before 1989	Now and the past twelve (12) months
2. PREVIOUS DEATHS WITHIN THE HOUSEHOLD	The past five years (since 1986)
3. OFF-FARM INCOME AND REMITTANCES	The past twelve (12) months
4. FARM LAND AND USE	1999/2000 Agricultural Season
5.1 CROP STOCKS AND SALES	Since last harvest (2000)
5.2 FRUIT AND VEGETABLES SALES	The past twelve (12) months
5.3 CASSAVA PRODUCTION	5.3.1 The 1999/2000 crop season 5.3.2 September 2000 to now 5.3.3 September 2000 to now
6. CROP PURCHASES	Since the 2000 harvest
7. SERVICE PROVISION	The 1999/2000 crop season
8. CONSERVATION FARMING	Last two cropping seasons (1999/2000 & 2000/2001)
9. CROPPING PRODUCER'S RELATIONSHIP WITH GINNING FIRMS	9.1-9.3 The past 4 years (Since 1997/98) 9.4-9.8 The current cropping season 2000/2001 9.9-9.11 No time period
10. FERTILIZER ACQUISITION	The 1999/2000 crop season
11. MILK AND EGG PRODUCTION	The past twelve (12) months
12. GENERAL INFORMATION	Now
13. CROP FORECASTING:2001 AGRICULTURAL SEASON	Now and forecasting for the next marketing and harvest period
14. HIV/AIDS AWARENESS	N/A

APPENDIX 2

CONVERSION TABLE FOR RAW AND CHIP CASSAVA TO FLOUR

RAW CASSAVA		CASSAVA CHIPS	
Standard bags	Cassava Flour	50kg bags	Cassava Flour
Raw Cassava	90kg bags	Dry chips	90 kg bags
1/4	.16	1/4	.14
1/2	.30	1/2	.28
3/4	.46	3/4	.42
1	.60	1	.56
2	1.20	2	1.11
3	1.80	3	1.67
4	2.40	4	2.22
5	3.00	5	2.78
6	3.60	6	3.33
7	4.20	7	3.89
8	4.80	8	4.44
9	5.40	9	5.00
10	6.00	10	5.56

APPENDIX 3

CONVERSION TABLE FOR CASSAVA FLOUR TO RAW AND CHIPS

RAW CASSAVA		CASSAVA CHIPS	
Standard bags	Raw Cassava	Standard Bags	90 kg bags
Cassava Flour	90kg bags	Cassava Flour	Dry Chips
1/4	.42	1/4	.45
1/2	.83	1/2	.89
3/4	1.24	3/4	1.34
1	1.66	1	1.78
2	3.33	2	3.57
3	4.98	3	5.34
4	6.64	4	7.14
5	8.30	5	8.90
6	9.96	6	10.68
7	11.62	7	12.46
8	13.28	8	14.28
9	14.94	9	16.02
10	16.66	10	17.80

APPENDIX 4

CONVERSION TABLE FOR GROUNDNUTS UNSHELLED TO SHELLED

<u>STANDARD BAGS</u> <u>UNSHELLED</u>	<u>QUANTITY SHELLED</u> <u>80KG BAGS</u>
$\frac{1}{4}$	0.06
—	0.08
$\frac{1}{2}$	0.11
—	0.15
$\frac{3}{4}$	0.18
1	0.23
2	0.46
3	0.69
4	0.92
5	1.15
6	1.39
7	1.61
8	1.85
9	2.08
10	2.31
11	2.54
12	2.78
13	3.00
14	3.23
15	3.46
16	3.69
17	3.92
18	4.15
19	4.39
20	4.62

APPENDIX 5

CONVERSION TABLE FOR AREA ACRES AND LIMAS TO HECTARES

ACRES	HECTARES	LIMA	HECTARES
1/4	.10	1/4	.06
-	.13	-	.08
1/2	.20	1/2	.12
-	.27	-	.17
3/4	.30	3/4	.19
1	.40	1	.25
2	.81	2	.50
3	1.22	3	.75
4	1.62	4	1.00
5	2.02	5	1.25
6	2.43	6	1.50
7	2.84	7	1.75
8	3.24	8	2.00
9	3.64	9	2.25
10	4.05	10	2.50
15	6.08	11	2.75
20	8.10	12	3.00