



REPUBLIC OF ZAMBIA

POST-HARVEST SURVEY

1997/98

(SMALL AND MEDIUM SCALE HOLDINGS)

CONDUCTED BY THE CENTRAL STATISTICAL OFFICE
(AGRICULTURE AND ENVIRONMENT DIVISION)

IN CONJUNCTION WITH

MINISTRY OF AGRICULTURE, FOOD AND FISHERIES
(POLICY AND PLANNING BRANCH)

INTERVIEWERS'
INSTRUCTION MANUAL

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REPUBLIC

MINISTRY OF AGRICULTURE
AND RURAL INDUSTRIES

INVESTIGATION
AND RESEARCH



(GATE AND MEDIUM SCALE HOLDINGS)

MINISTRY OF AGRICULTURE AND RURAL INDUSTRIES
(POLICY AND RESEARCH BRANCH)
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INVESTIGATION
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POST-HARVEST SURVEY 1997/98

INSTRUCTIONS FOR INTERVIEWERS

CHAPTER I: INTRODUCTION:

A. (i) Background and Purpose:

The Post-Harvest Survey (PHS) for the 1997/98 agricultural season is a continuation of the surveys conducted annually. Up to the 1978/79 agricultural season, the survey was called the Agricultural and Pastoral Production Survey. It was later renamed in 1982/83 as the Early Warning and Agricultural Survey to encompass the Crop Forecasting and Post-Harvest stages of the agricultural season during which period the two different types of surveys are conducted. However, in 1985/86 the two types of surveys were renamed the Crop Forecasting Survey and Post-Harvest Survey, respectively. The two surveys continue to be known as such.

The purpose of the survey is to obtain actual estimates, as opposed to estimates based on anticipations during the Crop Forecasting Phase. The estimates obtained are on area planted to crops, realised production, sales made and value of these sales, numbers of livestock and poultry, agricultural inputs purchased and used, capital formation, and other operational expenses. The reference period for this information is the agricultural season starting 1st October, 1997 ending 30th September, 1998.

(ii) Scope and Coverage:

This survey will cover the whole country and will be conducted in a sample of areas numbering 407 Standard Enumeration Areas (SEAs). The Survey will yield district-wise estimates on the data items mentioned in the second paragraph under 'Background and Purpose'. The district-wise estimates thus obtained will, when summed up for a province, give the provincial estimates.

Unlike during the Crop Forecasting Survey when data were collected on twelve (12) crops only, the Post-Harvest Survey will be used to collect information on all crops grown by the sample households. Besides numbers of livestock and poultry, data will also be collected on transactions undertaken during the reference period on these items. Value of inputs purchased and used, as well as quantities of these inputs will also be asked for. Information on capital formation will cover items such as value of draught animals purchased, machinery and equipment purchased, and expenditure on repairs of own and/or hired machinery. Other information to be collected will be cost of and transportation of produce and livestock to the market. Around 8,000 households are expected to be covered during the survey.

(iii) 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, Housing and Agriculture.

The 1990 Census of Population, Housing and Agriculture had many objectives. Among the objectives of that Census was the creation of a sampling frame for agricultural surveys. A Master Sample of agricultural standard enumeration areas (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 1996/97.

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 for the Crop Forecast Survey 1997/98. These same households will be canvassed for the Post-Harvest Survey 1997/98.

(iii) Data Entry Operations:

The completed PHS questionnaires, when checked by Supervisors and Provincial Statistical Officers (PSOs) and Regional Statisticians, will be initially processed in provinces. The diskettes and the questionnaires will then be sent to the Agriculture and Environment Statistics Division of the Central Statistical Office headquarters for further scrutiny and subsequent final processing.

CHAPTER II: DUTIES AND PERFORMANCE OF ACTIVITIES

A. Importance of Interviewer Performance

Field interviewers are the eyes and ears of the data collection team. The interviewer serves as a link between those who analyse 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 analysed and interventions confidently implemented.

B. 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 analysed.

1. Things You Must Do

- (a) You must introduce yourself on every visit and explain to the respondent the reason for your visit before starting the interview.
- (b) You must read and intensively study your manual to become thoroughly familiar with its contents in order to do your work efficiently.
- (c) 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.
- (d) You must make every effort to write legibly, and keep the documents you are working on clean and free from damage.
- (e) You must attend to all 'call-backs' as early as possible, and must be punctual in keeping all appointments made.
- (f) 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 to work on this survey can be allowed to see the information you collect, nor must you discuss such information with anyone.

2. Things You Must Not Do

- (a) 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.

- (b) You must not combine with the survey work any canvassing for personal gains, church, political party or any other organization.
- (c) You must **NEVER** become involved in religious or political discussions while you are on the job.

C. List of Basic Duties and Responsibilities

Self-sufficiency

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:

- (a) Attend the training course and all other scheduled meetings.
- (b) Study this manual very carefully and remember the main points which are explained here. Become fully familiar with all of the forms you must use.
- (c) Complete all the data collection activities as required.
- (d) Review each completed form for accuracy and completeness.
- (e) Submit completed questionnaires to your Supervisor as promptly as possible.
- (f) 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.

D. Timeliness of the submission of forms

Prompt submission of the forms 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.

Supervision

It may be helpful for your understanding of your own duties to know the duties which have been assigned to your Field Supervisor. The Field Supervisor is the person who is responsible for all field activities in the field. It is his duty to see that all field operations are properly organized and that everything pertaining to the survey is running smoothly. He must 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.

CHAPTER III: GENERAL INTERVIEWING PROCEDURES

A. Preparing for the Interview

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

1. Reviewing the Interviewer's Manual:

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

2. Reviewing the Questions on the Survey Questionnaires:

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.

3. 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.

4. Appearance and Behaviour:

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.

B. 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 first visit will largely determine the atmosphere for subsequent interviews. If you seem bored, uninterested or hostile, the respondent will probably act in a similar way.

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

C. Using the Survey Questionnaire

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.

1. Asking the Questions

(a) **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.

(b) **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.

(c) **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 of 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 'General Concepts and Definitions' in Chapter IV 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'.

(d) 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.

2. 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.

(a) 'SKIP' INSTRUCTIONS

'Skip' instructions usually are written out. You must read the 'Skip' instructions with care, so that you do not skip questions that 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: Item 1.1: From the questionnaire:

1.1 INTERVIEWER: Were any crops grown on the holding in the 1997/98 agricultural season?

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.

(b) 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.

EXAMPLE: SECTION 1: FARM LAND AND INPUT USE

(Question 1.4 from the questionnaire)

1.4. What was the total area under crops during the 1997/98 agricultural season?

(Include land under perennial crops)

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D. Probing

1. 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:

- (a) To motivate respondents to expand upon or clarify their answers;
- (b) 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.

2. 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.

3. 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

EXAMPLE: MAIZE: HARVESTING
(Question 1.40 from the questionnaire)

1.40 How many 90kg bags of maize did you produce?

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.

(a) 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.

(b) 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.

(c) Repeating the Respondent's Reply

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

(d) 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.

4. 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'.

5. 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.

E. 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.

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.

1. 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.

2. Recording Information in the Proper Place

There are basically three types of responses required in the questionnaire:

- (a) marking an 'X' in boxes
- (b) writing words
- (c) recording numbers

(a) MARKING AN 'X' IN BOXES

There are some questions where you are required to mark an 'X' to record the response given by the respondent. An 'X' should be correctly placed in the box beside the given response. Below is an example of an 'X' that is not correctly placed and one that is.

- X
[] - Incorrect
[X] - Correct

An example of such a response category are in Questions 1.13 on fertilizer in the questionnaire.

SECTION 1: FARM LAND AND INPUT USE

(Question 1.13 from the questionnaire)

Q. 1.13 Was the basal dressing fertilizer available in time?

1. ☐ Yes

2. ☐ No

(b) 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.

(c) 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. All numerical responses must be written one digit per box.

(d) 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 cropland which he cultivated during the 1997/98 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.

EXAMPLE: Item 1.4 from the questionnaire

Item 1.4 Total area under crops

	2		5	0	Ha
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The following are some commonly used fractions and their decimal equivalents rounded to the nearest tenth.

$$\frac{1}{4} = 0.25 \quad \frac{1}{2} = 0.50 \quad \frac{3}{4} = 0.75$$

$$\frac{1}{3} = 0.33 \quad \frac{2}{3} = 0.67$$

You must use the two boxes to the right of the decimal point for reporting decimals. If the respondent, let us say, reports area in whole numbers, the place to the right of the decimal must be filled with zeros, '0'. Likewise, if only the decimal places are needed, the whole number place must be filled with a zero, '0'. An example is shown below:

	0
--	---

.

5	0
---	---

Ha

G. Interviewer Comments/Calculations

The only kinds of entries which should be made in the spaces provided for answers are: marking an 'X' in a box, writing names or recording numbers. If any other notes or explanations are necessary or if you must do some arithmetic, use the spaces marked 'COMMENTS'. 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 reserved 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 'COMMENTS' space.

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 'COMMENTS' 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 'COMMENTS' space. When making a comment in the 'COMMENTS' 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.

H. 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.

CHAPTER IV: GENERAL CONCEPTS AND DEFINITIONS

It is important that you acquaint yourself with the general concepts and definitions used for this survey before embarking upon the fieldwork.

Definitions

Qualified Respondent	is an adult member of the household who is knowledgeable about its cropland, livestock, and poultry. A child is not a suitable respondent. It is not necessary that all the information be given by one person. A respondent may consult any other member of the household on different items in the questionnaire.
Household	consists of all members of one family who are related by blood, marriage, or adoption, including other persons, such as house-help or farm labourers, if any, who normally live together in one house or closely related premises and take their meals from the same kitchen. It may also consist of one member.
Agricultural Household	is a household in which at least one member is carrying out some agricultural activity (defined below) on the holding belonging to the household.
Agricultural Activity	is the growing of any crop and/or raising of livestock and/or raising of poultry and/or fish farming.
Head of 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.
Holding	is all land wholly or partly operated for agricultural purposes such as growing crops and/or raising livestock and/or raising poultry for production under a single technical management. A holding may consist of one or more parcels (defined below) located in one or separate areas, the parcels share the same means of production e.g., labour.
Holder	is a person who exercises management control over the operations of the holding. Usually there is one holder in a household that is engaged in agricultural activity, who may or may not be the head of the household
Parcel	is an undivided block of land in the holding which is entirely surrounded by land and/or water that does not belong to the same holding. It may contain one or several fields growing one or different crops, or it may be left idle or fallow, or it may be under pasture.
Field	is a piece of land usually cultivated with one crop at a time. In some cases, a number of different crops (mixture) may be grown in a single

field at the same time.

Concepts

Crops

Mixed beans

include all kinds of beans except soyabeans and ground (round) beans. The quantities of production and sales should relate to dried seed in 90kg bags and decimal fractions of a bag.

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 cassava flour in 90kg bags and decimal fractions of a bag. When a respondent reports these quantities in the form of tuber and/or chips, they should be converted to flour equivalents before recording. A conversion table is provided in the **Appendix**.

The following equivalents may also be used:

1 standard-bag of chips = 50 kg of cassava flour

18 standard bags of chips = 10 standard bags of cassava flour

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**

(A standard bag is one which when filled with maize grain weighs 90 kilogrammes).

You may use the conversion table provided in the Appendix.

Seed-cotton

production and sales should be recorded in seed-cotton form in kilogrammes. Where the quantity is reported in bales/woolpacks, it should be converted to kilogrammes before recording, using the conversion table provided in the **Appendix**.

NOTE: Bales/Wool-packs are of two sizes, namely: small (75kg) and large (150 kg).

Groundnuts

are brought to the market in shelled as well as unshelled form. For statistical reporting the concept of shelled groundnuts is adopted. Accordingly, quantities of groundnut production and sales should relate to shelled groundnuts in 80kg bags and decimal fractions of a bag. When a respondent reports these quantities in unshelled form, they should be converted to shelled form before recording. Use the conversion table provided in the **Appendix**.

Maize	production and sales should be recorded in dried grain form in 90kg bags and decimal fractions of a bag.
Rice	production and sales should relate to paddy (i.e., rice in husk) in 80kg bags and decimal fractions of a bag. Where quantities are reported in the form of milled or hand-pounded rice (i.e., rice not in husk) then, before recording, they should be converted to paddy equivalents by multiplying by 1.5.
Millet	includes bulrush and finger millet. Their production and sales should be recorded in threshed dried grain form in 90kg bags.
Sorghum	production and sales should be recorded in threshed grain form in 90kg bags and decimal fractions of a bag.
Soyabeans/	production and sales should be recorded in dried seed form in 90kg bags and decimal fractions of a bag.
Cow peas	production and sales should be recorded in dried seed form in 90kg bags and decimal fractions of a bag.
Ground beans	production and sales should be recorded in dried seed form in 90kg bags and decimal fractions of a bag.
Sunflower	production and sales should be recorded in dried seed form in 50kg bags and decimal fractions of a bag.
Tobacco (Burley/Virginia)	production and sales should relate to cured tobacco in kilogrammes. Where the quantity is reported in bundles/bales/packs, this should be converted to kilogrammes before recording, using the conversion table provided in the Appendix .
Irish/Sweet Potatoes	production and sales should be recorded in 10kg pockets and decimal fractions of a pocket.
Fruits	include oranges, tangerines and mandarins, grapefruit and lemons, bananas, pineapples, mangoes, etc.
Vegetables	include all leafy crops e.g., cabbage, rape, onions, tomatoes, carrots, etc. Green maize, fresh groundnuts, fresh ground (round) beans will also be included under vegetables.
Wheat	production and sales should be recorded in dried grain form in 90kg bags.

Livestock and Poultry

Livestock	include cattle, pigs, goats, sheep, and donkeys.
Cattle	include bulls, oxen, tollies, cows, heifers, and calves.

Bulls	bulls are uncastrated adult male cattle.
Oxen/Tollies	are castrated male cattle.
Cows	are female cattle that have given birth at least once. Include female cattle that have not yet given birth but are beyond the stage of being termed heifers, i.e., they are infertile.
Heifers	are female cattle that have not yet given birth and have not reached the stage of being termed cows.
Calves	are both male and female cattle that are not yet weaned.
Poultry	include chickens, ducks, geese, pigeons, guinea fowls, and turkeys.
Chickens	include cocks, cockerels, hens, pullets, and chicks.
<u>Miscellaneous</u>	
Mixed Cropping	<p>is a cultivation practice whereby two or more different temporary or permanent crops (but not temporary and permanent crops) are grown simultaneously in the same field.</p> <p>The apportionment of area under crops in mixture may be approached through asking the respondent what proportion of the field would be covered by each crop in mixture, if these were to be planted as pure stand on parts of the field. Another way would be to ask the respondent how much seed was used for each crop in the mixture, e.g., how many pockets and of what size (kg)? how many kilogrammes? or how many 20 litre tins? etc.</p>
Inter-cropping	is a cultivation practice whereby a crop is planted between the rows of another crop, e.g., sorghum between cotton rows, or sorghum between groundnut rows, or groundnuts between maize rows.
Area under mixed crops	is the area of the field in which two or more crops are grown almost simultaneously. This area has to be apportioned to the constituent crops in proportions occupied by the crops in the field. Thus, the area under each of the crops in mixture when added together, will be equal or almost equal to the area of the field.
Agricultural Season	Zambia's agricultural season extends from 1st October of one year to 30th September of the following year.
Permanent Employees	are those employed on the holding to do farming operations for four or more months continuously during the agricultural year.

Hired Casual labour	are persons employed on any farming operation on the holding for less than four months during the agricultural year. This category also includes workers called on contract or hired on piece work basis.
Payment in Kwacha (Cash)	is the payment made in cash and/or by cheque.
Payment in Kind	is the payment made not in cash or by cheque but in form of goods. The respondent should be asked to estimate the value of these goods and services in Kwacha and the same should be recorded.
Adult member	refers to persons who are aged 12 years and above.
Land Preparation	refers to all activities such as clearing the land, tree stumping, ploughing, etc.
Animal Draught Power	refers to the use of animals such as oxen, donkeys, in carrying out tasks like land preparation, planting, weeding, etc.
Mechanical Power	refers to the use of tractors, bulldozers, hand tractors, etc., in any agricultural activity.
Bunding	involves forming mounds in the field, i.e., piling up masses of earth over the whole field in order to reduce the rate of flow of rain water.
Contour-ridging	is a method of soil conservation in which ridges are formed such that they follow contour lines on a hillside. The ridges are usually bigger and wider than those on which the crop is planted.
Fallowing	is a soil conservation method in which a piece of land is ploughed but not sown or planted with any crop.
Mulching	is a soil conservation method in which peat (plant material partly decomposed by the action of water) is spread over the roots of trees and bushes to retain moisture, smother (kill) weeds, etc.
Terracing	is a soil conservation method that involves levelling an area of land, giving it a vertical or slopping front or side. The levelled surface checks the flow of water. A field will have a series of these levelled areas of land, one after another along the slope, e.g., on a hillside.
Recycled seed	refers to hybrid seed which when sown in one season, the seed for the following season is obtained from the season's harvest of the crop.
Local seed	refers to traditional and indigenous seed.
Hybrid seed	refers to improved seed varieties.

Credit Coordinator	refers to organisations/traders/individuals who provided fertilizer, seed and pesticides under the government credit programme.
Co-operative Society/ Union	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 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 individual or firm 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 bilateral or multi-lateral in nature (among the donors that render such support are NORAD, IFAD, FINIDA, SIDA, etc). Their efforts are also supported by Government. Examples of NGOs are: Program Against Malnutrition (PAM), NGO-CC, Women for Change, etc.

IDENTIFICATION:

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 Name** 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**.
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.
9. **Name of Respondent (if different from 7)** Write, starting with the family or second name, the full name of the person who is providing you with the information, if it is someone other than the head of the household. Otherwise, place a dash (-) in the space provided.
10. **Response Status** Record the response status for the questionnaire by using the following codes:-
 - 1 - **Complete Response**
 - 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.
- 4 - **Non-contact:** i.e., for some reason, no responsible adult member was available during the period 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.

11. **Household Population** Find out how many members there are in the household, how many of these are males and how many are females (**include infants and young children in the count**). Enter the responses given, in their respective boxes.
12. **Household's Agricultural** Find out from the respondent whether the household was engaged in any of the four listed agricultural activities during the 1997/98 agricultural season. Check-mark the box against each agricultural activity the household reports to have been engaged in and enter code '1' in the corresponding code box. For any agricultural activity not reported by the household, leave the check-mark box **blank** and enter code '2' in the corresponding code box.
13. **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.
14. **Assignment** Write your name against '**NAME OF ENUMERATOR**' and the date on which you complete the interview against '**DATE COMPLETED**'. Leave the spaces for '**SUPERVISOR**' blank.

SKETCHING OF PARCELS/FIELDS OPERATED BY THE HOUSEHOLD
DURING THE 1997/98 AGRICULTURAL SEASON

Check on the cover page, in **ITEM 12**, if the household has responded to have grown crops during the 1997/98 agricultural season. If they did indicate having grown crops during the season, then proceed to sketch (not to scale) all their parcels/fields. The sketching should be done relative to the household's residence, in the space provided. Find out from the respondent what crop(s) was/were grown and the area of each parcel/field. Indicate the area of the parcel/field as well as the crop(s) grown in the parcel/field. For a perennial crop such as cassava, also indicate the year in which the crop was planted. You should number the parcels/fields serially as you sketch them.

For example, if a household had two parcels, where the first parcel had one field and the second parcel had two fields, numbering of such parcels/fields will be as follows:-

1/1 for the first parcel and the one field within that parcel

2/1 for the second parcel and the first field within that parcel

2/2 for the second parcel and the second field within that parcel

OR if you start with the parcel that has two fields in it,

1/1 for the first parcel and the first field within that parcel

1/2 for the first parcel and the second field within that parcel

2/1 for the second parcel and the one field within that parcel

NOTE:

Parcels will be numbered serially for each household while fields will be numbered serially within each parcel.

There will be no sketching of parcels/fields operated by the household during the 1996/97 agricultural season.

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**

Groundnuts **1/4 of 4 lima**

The area under maize is $3/4 \times 4 \text{ lima} = 3 \text{ lima}$

The area under groundnuts is $1/4 \times 4 \text{ lima} = 1 \text{ lima}$

Show all calculations for such fields against their sketches.

For such fields shown as having been cultivated with several crops, in **Section 2: Crop Production, Input Use and Marketing**, the area apportioned to each crop will be considered separately under each respective crop.

If a crop was grown more than once during the season, indicate the number of times the crop was grown in the sketch. The total area to which the crop was grown during the season should be aggregated and reported under the particular crop.

In the case of cassava planted in mixture with millet, assign the entire area of the field to each of the two crops.

SECTION 1: FARM LAND AND INPUT USE

- Question 1.1** Refer to the front page, item 12 or the page for sketches to record a response for this question. If the front page and the sketches page shows that the household grew crops during the 1997/98 agricultural season, then check-mark the 'Yes' box and enter code '1' in the code box. If however, there is no indication of crop production on both of these pages, then check-mark the 'No' box and enter code '2' in the code box and follow the skip instruction.
- Question 1.2** Refer to the sketches drawn and count how many parcels were operated during the 1997/98 agricultural season. Record the total number of parcels found, in the response boxes provided.
- Question 1.3** Refer to the sketches drawn and count how many fields within each parcel were cultivated during the 1997/98 agricultural season. Add the number of fields cultivated in each parcel and record the total number of fields found, in the response boxes provided.
- Question 1.4** From the sketches drawn, area may be reported in lima, acres, or in hectares, add the area of each parcel/field reported in the same unit. Convert the area reported in lima and that reported in acres to hectares. Record the total area reported to have been under crops during the 1997/98 agricultural season, in the response boxes provided.
- Question 1.5** Ask the respondent whether any basal dressing fertilizers were used on their crops during the 1997/98 agricultural season. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.
- Question 1.6** Find out from the respondent how much basal dressing fertilizers the household used during the 1997/98 agricultural season. If the quantity is reported in bags, then convert the reported figure to kilograms and record the result in the boxes provided.
- Question 1.7** Ask the respondent whether any member of the household purchased any basal dressing fertilizers for the 1997/98 agricultural season. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.
- Question 1.8** Find out from the respondent where most of the basal dressing fertilizers were purchased from. Check-mark the box for the response given and enter the corresponding code in the box provided.

- Question 1.9** Find out from the respondent how much basal dressing fertilizers the household purchased (using cash and/or paid for in kind) for the 1997/98 agricultural season. If the quantity is reported in bags, then convert the reported figure to kilograms and record the result in the boxes provided. Record the quantity of basal dressing fertilizers purchased using cash in the boxes marked 'CASH' and that paid for in kind, in the boxes marked 'KIND'. If either of the modes of acquiring basal dressing fertilizers was not used, then enter '0' in the last of the response boxes.
- Question 1.10** Find out from the respondent how much the household spent on the basal dressing fertilizers purchased/bartered for the 1997/98 agricultural season. If the respondent reports expenses on basal dressing fertilizer purchases in both cash and in kind, then record the amount of cash spent in the boxes marked 'CASH'. For the quantity of basal dressing fertilizers obtained through barter, ask the respondent to give the value of the items that were exchanged for the fertilizers and record the estimated value in the boxes marked 'KIND'. If either of the modes of acquiring basal dressing fertilizers was not used, then enter '0' in the last of the response boxes.
- Question 1.11** Find out from the respondent the quantity of basal dressing fertilizers used out of what was purchased for the 1997/98 agricultural season. If the quantity is reported in bags, then convert the reported figure to kilograms and record the result in the boxes provided.
- Question 1.12** Find out from the respondent how much the household spent on transporting basal dressing fertilizers from the market/depot to the homestead. If the respondent reports that the household paid in kind for transporting the basal dressing fertilizers, obtain the estimated value in Kwacha, of the item(s) paid. Record the amount in the boxes provided.
- NOTE:** If the two types of chemical fertilizers were available and transported at the same time, then apportion the amount spent on transportation, using the number of bags of each type of fertilizer transported. Record the cost of transporting each type of fertilizer in the appropriate response boxes. Make a comment in the 'COMMENTS' space.
- Question 1.13** Ask the respondent whether basal dressing fertilizers were available in time for the season. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided.
- Question 1.14** Ask the respondent whether any top dressing fertilizers were used on their crops during the 1997/98 agricultural season. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.

- Question 1.15** Find out from the respondent how much top dressing fertilizers the household used during the 1997/98 agricultural season. If the quantity is reported in bags, then convert the reported figure to kilograms and record the result in the boxes provided.
- Question 1.16** Ask the respondent whether any member of the household purchased any top dressing fertilizers for the 1997/98 agricultural season. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.
- Question 1.17** Find out from the respondent where most of the top dressing fertilizers were purchased from. Check-mark the box for the response given and enter the corresponding code in the box provided.
- Question 1.18** Find out from the respondent how much top dressing fertilizers the household purchased (using cash and/or paid for in kind) for the 1997/98 agricultural season. If the quantity is reported in bags, then convert the reported figure to kilograms and record the result in the boxes provided. Record the quantity of top dressing fertilizers purchased using cash in the boxes marked 'CASH' and ~~that~~ paid for in kind, in the boxes marked 'KIND'. If either of the modes of acquiring top dressing fertilizers was not used, then enter '0' in the last of the response boxes.
- Question 1.19** Find out from the respondent how much the household spent on the top dressing fertilizers purchased/bartered for the 1997/98 agricultural season. If the respondent reports expenses on top dressing fertilizer purchases in both cash and in kind, then record the amount of cash spent in the boxes marked 'CASH'. For the quantity of top dressing fertilizers obtained through barter, ask the respondent to give the value of the items that were exchanged for the fertilizers and record the estimated value in the boxes marked 'KIND'. If either of the modes of acquiring top dressing fertilizers was not used, then enter '0' in the last of the response boxes.
- Question 1.20** Find out from the respondent the quantity of top dressing fertilizers used **out of what was purchased** for the 1997/98 agricultural season. If the quantity is reported in bags, then convert the reported figure to kilograms and record the result in the boxes provided.
- Question 1.21** Find out from the respondent how much the household spent on transporting top dressing fertilizers from the market/depot to the homestead. If the respondent reports that the household paid in kind for transporting the top dressing fertilizers, obtain the estimated value in Kwacha, of the item(s) paid. Record the amount in the boxes provided.

NOTE: If the two types of chemical fertilizers were available and transported at the same time, then apportion the amount spent on transportation, using the number of bags of each type of fertilizer

transported. Record the cost of transporting each type of fertilizer in the appropriate response boxes. Make a comment in the 'COMMENTS' space.

- Question 1.22** Ask the respondent whether top dressing fertilizers were available in time for the season. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided.
- Question 1.23** Find out from the respondent whether any member of the household used any organic manure during the 1997/98 agricultural season. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.
- Question 1.24** Find out from the respondent what type of organic manure the household used during the 1997/98 agricultural season. Check-mark the box for the response given and record the appropriate code in the box provided.
- Question 1.25** Find out from the respondent whether any member of the household purchased any pesticides/insecticides for the 1997/98 agricultural season. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.
- Question 1.26** Find out from the respondent how much was spent on purchasing the pesticides/insecticides (using cash and/or paid for in kind) for the 1997/98 agricultural season. Record the amount paid in cash in the boxes marked 'CASH' and that paid in kind, in the boxes marked 'KIND'. If either of the modes of acquiring pesticides/insecticides was not used, then enter '0' in the last of the response boxes.
- Question 1.27** Find out from the respondent how much the household spent on transporting pesticides/insecticides from the market/depot to the homestead. If the respondent reports that the household paid in kind for transportation, obtain the estimated value in Kwacha, of the item(s) paid. Record the amount in the boxes provided.
- Question 1.28** Ask the respondent whether pesticides/insecticides were available in time for the season. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided.
- Question 1.29** Find out from the respondent whether any member of the household purchased any grain bags for the 1997/98 agricultural season. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.

- Question 1.30** Find out from the respondent how many grain bags were purchased by the household for the 1997/98 agricultural season. Record the number reported, in the boxes provided.
- Question 1.31** Find out from the respondent how much was spent on purchasing the grain bags for the 1997/98 agricultural season. If some or all of the grain bags were obtained through barter, then ask for the estimated value of the item(s) exchanged for the grain bags and record the total amount paid in Kwacha, in the boxes provided.
- Question 1.32** Find out from the respondent how much the household spent on transporting the grain bags from the market/depot to the homestead. If the respondent reports that the household paid in kind for transportation, obtain the estimated value in Kwacha, of the item(s) paid. Record the amount in the boxes provided.
- Question 1.33** Ask the respondent whether the grain bags were available in time for the season. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided.

SECTION 2: CROP PRODUCTION, INPUT USE AND MARKETING

NOTE: All the crops identified as being of major socio-economic importance have been dealt with individually in the questionnaire and are pre-coded. Each crop has the same number of questions (except for cassava), except that the questions that are irrelevant for certain crops have been blocked and will therefore not be asked.

Since this approach has been adopted, the numbers in the question rows represent two aspects: one part of the number is the crop code, and the other part is the question number. The part of the number that is before the decimal point is the crop code while the part that is to the right of the decimal point is the question number. For example, 1.0 is the identification for MAIZE, and maize has been coded 01 on the right side of the row. In the next row we have 1.1 followed by a question; this is the first question on maize. Similarly, the other crops will have the same sequence of numbers.

Hence, in discussing the data collection instructions on crops, we will refer only to the latter part of the number in each row.

COLLECTING DATA ON CROP PRODUCTION

Question _1 Find out from the respondent whether any member of the household grew the crop you are dealing with, during the 1997/98 agricultural season. This information may also be obtained from the sketch you drew earlier. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.

Question _2 Find out from the respondent how much the total area planted to the crop was. You may also check the respondent's answer with what was recorded on the sketch. Record the total area, in hectares, planted to the crop during the 1997/98 agricultural season in the boxes provided.

LAND PREPARATION

Question _3 Find out from the respondent how many members of the household took part in preparing land for the crop. (This should include persons who were household members during the season but are no longer with the household at the time of the survey). Record the number of male members who were below 12 years and those who were 12 years and older in the appropriate boxes provided against 'Male'. Do the same for female members who took part in the task and record the responses in the boxes marked 'Female'.

Question _4 Find out from the respondent whether the household hired any casual labour during land preparation for the crop. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the

response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.

Question _5

Find out from the respondent how much was spent on the hire of casual labour to prepare land for the crop. The hired casual labour could have been paid for in cash and/or in kind. Record the amount paid for in cash in the boxes marked 'CASH' and that paid in kind, in the boxes marked 'KIND'. If either of the modes of payment was not used, then enter '0' in the last of the response boxes.

Question _6

Find out from the respondent whether the household used any animal power for land preparation for the crop. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.

Question _7

Ask the respondent what type of animal draught power was used the most during land preparation for the crop. Check-mark the response box for the answer given and enter its appropriate code in the box provided.

Question _8

Find out from the respondent about the source where the animal draught power was obtained from. Check-mark the response box for the answer given and enter its appropriate code in the box provided. If the response is either 'own' or 'borrowed' follow the skip instruction.

Question _9

Find out from the respondent how much it cost the household to hire the animal draught power to prepare land for the crop. The hired animal draught power could have been paid for in cash and/or in kind. Record the amount paid for in cash in the boxes marked 'CASH' and that paid in kind, in the boxes marked 'KIND'. If either of the modes of payment was not used, then enter '0' in the last of the response boxes.

Question _10

Find out from the respondent whether the household used any mechanical power for land preparation for the crop. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.

Question _11

Ask the respondent what type of mechanical power was used the most during land preparation for the crop. Check-mark the response box for the answer given and enter its appropriate code in the box provided.

Question _12

Find out from the respondent about the source where the mechanical power was obtained from. Check-mark the response box for the answer given and enter its appropriate code in the box provided. If the response is either 'own' or 'borrowed' follow the skip instruction.

Question _13

Find out from the respondent how much it cost the household to hire the mechanical power to prepare land for the crop. The hired mechanical

power could have been paid for in cash and/or in kind. Record the amount paid for in cash in the boxes marked 'CASH' and that paid in kind, in the boxes marked 'KIND'. If either of the modes of payment was not used, then enter '0' in the last of the response boxes.

PLANTING

- Question _14** Find out from the respondent how many members of the household took part in planting the crop. (This should include persons who were household members during the season but are no longer with the household at the time of the survey). Record the number of male members who were below 12 years and those who were 12 years and older in the appropriate boxes provided against 'Male'. Do the same for female members who took part in the task and record the responses in the boxes marked 'Female'.
- Question _15** Find out from the respondent whether the household hired any casual labour when planting the crop. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.
- Question _16** Find out from the respondent how much was spent on the hire of casual labour to plant the crop. The hired casual labour could have been paid for in cash and/or in kind. Record the amount paid for in cash in the boxes marked 'CASH' and that paid in kind, in the boxes marked 'KIND'. If either of the modes of payment was not used, then enter '0' in the last of the response boxes.
- Question _17** Find out from the respondent whether the household used any animal draught power for planting purposes. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.
- Question _18** Ask the respondent what type of animal draught power was used the most when planting the crop. Check-mark the response box for the answer given and enter its appropriate code in the box provided.
- Question _19** Find out from the respondent about the source where the animal draught power was obtained from. Check-mark the response box for the answer given and enter its appropriate code in the box provided. If the response is either 'own' or 'borrowed' follow the skip instruction.

- Question _20** Find out from the respondent how much it cost the household to hire the animal draught plant to weed the crop. The hired animal draught power could have been paid for in cash and/or in kind. Record the amount paid for in cash in the boxes marked 'CASH' and that paid in kind, in the boxes marked 'KIND'. If either of the modes of payment was not used, then enter '0' in the last of the response boxes.
- Question _21** Find out from the respondent whether the household used any mechanical power for planting purposes. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.
- Question _22** Ask the respondent what type of mechanical power was used the most during planting for the crop. Check-mark the response box for the answer given and enter its appropriate code in the box-provided.
- Question _23** Find out from the respondent about the source where the mechanical power was obtained from. Check-mark the response box for the answer given and enter its appropriate code in the box provided. If the response is either 'own' or 'borrowed' follow the skip instruction.
- Question _24** Find out from the respondent how much it cost the household to hire the mechanical power to plant the crop. The hired mechanical power could have been paid for in cash and/or in kind. Record the amount paid for in cash in the boxes marked 'CASH' and that paid in kind, in the boxes marked 'KIND'. If either of the modes of payment was not used, then enter '0' in the last of the response boxes.
- Question _25** Find out from the respondent whether the household purchased any seed of the crop to plant during the 1997/98 agricultural season. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.
- Question _26** Find out from the respondent what type of seed was purchased, the quantity purchased (**for sweet potatoes you will not ask for the quantity of cuttings purchased**), and the cost incurred in its purchase. Three types of seed have been identified. These being: local seed, hybrid seed, and recycled seed. Whatever type of seed is reported to have been purchased and planted by members of the household, obtain the quantity bought and the amount spent, and record the responses in the appropriate row and column. The cost of seed obtained through barter should be estimated and recorded in the appropriate response boxes.

- Question _27** Find out from the respondent how much the household spent on transporting the seed from the market/depot to the homestead. The cost of transporting the seed could have been paid in cash and/or in kind. Record the amount paid in cash in the boxes marked 'CASH' and that paid in kind, in the boxes marked 'KIND'. If either of the modes of payment was not used, then enter '0' in the last of the response boxes.
- Question _28** Ask the respondent whether the seed/cuttings were available in time for the season. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided.
- Question _29** Find out from the respondent whether the household applied any basal dressing fertilizers to the crop. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.
- Question _30** Find out from the respondent the quantity of basal dressing fertilizers applied to the crop during the 1997/98 agricultural season. If the quantity is reported in bags, then convert the reported figure to kilograms and record the result in the boxes provided

WEEDING

- Question _31** Find out from the respondent how many members of the household took part in weeding the crop. (This should include persons who were household members during the season but are no longer with the household at the time of the survey). Record the number of male members who were below 12 years and those who were 12 years and older in the appropriate boxes provided against 'Male'. Do the same for female members who took part in the task and record the responses in the boxes marked 'Female'.
- Question _32** Find out from the respondent whether the household hired any casual labour when weeding the crop. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.
- Question _33** Find out from the respondent how much was spent on the hire of casual labour to weed the crop. The hired casual labour could have been paid for in cash and/or in kind. Record the amount paid for in cash in the boxes marked 'CASH' and that paid in kind, in the boxes marked 'KIND'. If either of the modes of payment was not used, then enter '0' in the last of the response boxes.

- Question _34** Find out from the respondent whether the household used any animal draught power for weeding purposes. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.
- Question _35** Ask the respondent what type of animal draught power was used the most when weeding the crop. Check-mark the response box for the answer given and enter its appropriate code in the box provided.
- Question _36** Find out from the respondent about the source where the animal draught power was obtained from. Check-mark the response box for the answer given and enter its appropriate code in the box provided. If the response is either 'own' or 'borrowed' follow the skip instruction.
- Question _37** Find out from the respondent how much it cost the household to hire the animal draught power to weed the crop. The hired animal draught power could have been paid for in cash and/or in kind. Record the amount paid for in cash in the boxes marked 'CASH' and that paid in kind, in the boxes marked 'KIND'. If either of the modes of payment was not used, then enter '0' in the last of the response boxes.
- Question _38** Find out from the respondent whether the household used any mechanical power for weeding purposes. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.
- Question _39** Ask the respondent what type of mechanical power was used the most during weeding for the crop. Check-mark the response box for the answer given and enter its appropriate code in the box provided.
- Question _40** Find out from the respondent about the source where the mechanical power was obtained from. Check-mark the response box for the answer given and enter its appropriate code in the box provided. If the response is either 'own' or 'borrowed' follow the skip instruction.
- Question _41** Find out from the respondent how much it cost the household to hire the mechanical power to weed the crop. The hired mechanical power could have been paid for in cash and/or in kind. Record the amount paid for in cash in the boxes marked 'CASH' and that paid in kind, in the boxes marked 'KIND'. If either of the modes of payment was not used, then enter '0' in the last of the response boxes.
- Question _42** Find out from the respondent whether the household applied any top dressing fertilizers to the crop. If the response is 'Yes' check-mark the

'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.

Question _43

Find out from the respondent the quantity of top dressing fertilizers applied to the crop during the 1997/98 agricultural season. If the quantity is reported in bags, then convert the reported figure to kilograms and record the result in the boxes provided.

HARVESTING

Question _44

Find out from the respondent whether the household harvested any of the crop planted during the 1997/98 agricultural season. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.

Question _45

Find out from the respondent how many members of the household took part in harvesting the crop. (This should include persons who were household members during the season but are no longer with the household at the time of the survey). Record the number of male members who were below 12 years and those who were 12 years and older in the appropriate boxes provided against 'Male'. Do the same for female members who took part in the task and record the responses in the boxes marked 'Female'.

Question _46

Find out from the respondent whether the household hired any casual labour when harvesting the crop. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction. The 'skip' instruction directs you to the question that asks for the quantity of the crop produced.

Question _47

Find out from the respondent how much was spent on the hire of casual labour to harvest the crop. The hired casual labour could have been paid for in cash and/or in kind. Record the amount paid for in cash in the boxes marked 'CASH' and that paid in kind, in the boxes marked 'KIND'. If either of the modes of payment was not used, then enter '0' in the last of the response boxes.

Question _48

Ask the respondent to give you the total quantity of the crop that was produced by the household. The quantity reported should be recorded in standard units (as indicated against the response boxes), and any fraction of the standard unit should be converted to a decimal fraction of the said unit. The decimal fraction of the quantity produced should be recorded to the right side of the decimal point.

Question _ .49

Find out from the respondent whether the household incurred any cost to transport the produce from the fields to the homestead. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.

Question _ .50

Find out from the respondent how much the household spent on transporting the produce from the fields to the homestead. The transportation cost could have been paid in cash and/or in kind. Record the amount paid for in cash in the boxes marked 'CASH' and that paid in kind, in the boxes marked 'KIND'. If either of the modes of payment was not used, then enter '0' in the last of the response boxes.

MARKETING

Question _ .51

Find out from the respondent whether the household sold any of the crop they produced. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.

Question _ .52

Ask the respondent to give the quantity of the produce that was sold for cash and the quantity exchanged for goods. Record the two quantities reported separately, in standard units, in their respective response boxes.

Question _ .53

Find out from the respondent how much the household realized from the sale of the crop they produced. The returns could have been realized in cash and/or in kind. Record the amount received in cash in the boxes marked 'CASH' and that received in kind, in the boxes marked 'KIND'. If either of the modes of payment was not used, then enter '0' in the last of the response boxes.

Question _ .54

Ask the respondent to indicate where most of the crop was sold. Check-mark the box for the response given and enter the appropriate code in the box provided.

Question _ .55

Find out from the respondent during which month of the year most of the crop was sold by the household. Write the name of the month in the space provided, and enter the code for the month in the boxes provided.

Question _ .56

Find out from the respondent how much the household spent to process the produce for marketing, e.g., shelling, packaging, etc. The processing cost could have been paid in cash and/or in kind. Record the amount paid for in cash in the boxes marked 'CASH' and that paid in kind, in the boxes marked 'KIND'. If either of the modes of payment was not used, then enter '0' in the last of the response boxes.

- Question _57** Find out from the respondent how much the household spent on transporting the produce to the market. The transportation cost could have been paid in cash and/or in kind. Record the amount paid for transporting the produce to the market in the boxes provided. If no cost was incurred, then enter '0' in the last of the response boxes.
- Question _58** Find out from the respondent whether the household has any stocks of the produce, as on the survey day. If the response is 'Yes' check-mark the 'Yes' box, enter '1' in the box provided and follow the skip instruction. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided.
- Question _59** For the household that reports having no stocks of the produce on survey day, find out during which month the stocks ran out. Write the name of the month in the space provided, enter the code for the month in the boxes provided and follow the skip instruction.
- Question _60** For the household that reports having stocks of the produce on survey day, find out what the quantity of their current stocks is. Record the reported quantity of current stocks of the produce in the response boxes provided. Remember to also record the fraction of the standard unit required for the crop, if any.
- Question _61** Find out from the respondent how much of the household's current stocks of the crop is meant for household consumption. Record the response given, in the boxes provided.
- Question _62** Find out from the respondent whether the household's current stocks of the produce are sufficient to last till the next harvest. If the response is 'Yes' check-mark the 'Yes' box, enter '1' in the box provided and follow the skip instruction. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided.
- Question _63** For the households that report having insufficient stocks of the produce to last up to the next harvest, find out during which month they expect the stocks to run out. Write the name of the month in the space provided, enter the code for the month in the boxes provided and follow the skip instruction.

OTHER CROPS:

There is provision for a household to report on two other crops which have not been specified in the questionnaire. Any other crop that the household may report having grown during the 1997/98 agricultural season should be specified in the space provided. Leave the code boxes blank as coding for such crops will be done later.

Follow the general instructions given above for the various crops to collect information on **'OTHER CROPS'**. When recording production and sales of such a crop **remember** to specify the unit of quantity.

CASSAVA:

- Question 18.1** Find out from the respondent whether any member of the household grew cassava during the 1997/98 agricultural season. This information may also be obtained from the sketch you drew earlier. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.
- Question 18.2** Find out from the respondent how much the total area under cassava was during the 1997/98 agricultural season. You may also check the respondent's answer with what was recorded on the sketch. Record the total area under cassava during the 1997/98 agricultural season in the boxes provided. Remember to convert area reported in lima and in acres to hectares before obtaining and recording total area.
- Question 18.3** Find out from the respondent whether the household **planted** any cassava during the 1997/98 agricultural season. This can also be cross-checked with the sketches drawn. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.
- Question 18.4** Find out from the respondent how much the total area planted to cassava during the 1997/98 was. This can also be cross-checked with the sketches drawn. Record the total area planted to cassava during the 1997/98 agricultural season in the boxes provided.

LAND PREPARATION

- Question 18.5** Find out from the respondent how many members of the household took part in land preparation for cassava. (This should include persons who were household members during the season but are no longer with the household at the time of the survey). Record the number of male members who were below 12 years and those who were 12 years and older in the appropriate boxes provided against **'Male'**. Do the same for female members who took part in the task and record the responses in the boxes marked **'Female'**.
- Question 18.6** Find out from the respondent whether the household hired any casual labour during land preparation for cassava. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.

- Question 18.7** Find out from the respondent how much was spent on the hire of casual labour to prepare land for cassava. The hired casual labour could have been paid for in cash and/or in kind. Record the amount paid for in cash in the boxes marked 'CASH' and that paid in kind, in the boxes marked 'KIND'. If either of the modes of payment was not used, then enter '0' in the last of the response boxes.
- Question 18.8** Find out from the respondent whether the household used any animal draught power for land preparation for cassava. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.
- Question 18.9** Ask the respondent what type of animal draught power was used the most during land preparation for cassava. Check-mark the response box for the answer given and enter its appropriate code in the box provided.
- Question 18.10** Find out from the respondent about the source where the animal draught power was obtained from. Check-mark the response box for the answer given and enter its appropriate code in the box provided. If the response is either 'own' or 'borrowed' follow the skip instruction.
- Question 18.11** Find out from the respondent how much it cost the household to hire the animal draught power to prepare land for cassava. The hired animal draught power could have been paid for in cash and/or in kind. Record the amount paid for in cash in the boxes marked 'CASH' and that paid in kind, in the boxes marked 'KIND'. If either of the modes of payment was not used, then enter '0' in the last of the response boxes.
- Question 18.12** Find out from the respondent whether the household used any mechanical power for land preparation for cassava. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.
- Question 18.13** Ask the respondent what type of mechanical power was used the most during land preparation for cassava. Check-mark the response box for the answer given and enter its appropriate code in the box provided.
- Question 18.14** Find out from the respondent about the source where the mechanical power was obtained from. Check-mark the response box for the answer given and enter its appropriate code in the box provided. If the response is either 'own' or 'borrowed' follow the skip instruction.
- Question 18.15** Find out from the respondent how much it cost the household to hire the mechanical power to prepare land for cassava. The hired mechanical

power could have been paid for in cash and/or in kind. Record the amount paid for in cash in the boxes marked 'CASH' and that paid in kind, in the boxes marked 'KIND'. If either of the modes of payment was not used, then enter '0' in the last of the response boxes.

PLANTING

- Question 18.16** Find out from the respondent how many members of the household took part in planting cassava during the 1997/98 agricultural season. (This should include persons who were household members during the season but are no longer with the household at the time of the survey). Record the number of male members who were below 12 years and those who were 12 years and older in the appropriate boxes provided against 'Male'. Do the same for female members who took part in the task and record the responses in the boxes marked 'Female'.
- Question 18.17** Find out from the respondent whether the household hired any casual labour when planting cassava. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.
- Question 18.18** Find out from the respondent how much was spent on the hire of casual labour to plant cassava. The hired casual labour could have been paid for in cash and/or in kind. Record the amount paid for in cash in the boxes marked 'CASH' and that paid in kind, in the boxes marked 'KIND'. If either of the modes of payment was not used, then enter '0' in the last of the response boxes.
- Question 18.19** Find out from the respondent whether the household purchased any cassava cuttings to plant during the 1997/98 agricultural season. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.
- Question 18.20** Find out from the respondent what type of cassava cuttings were purchased (two types of cassava cuttings have been identified: local and improved) and how much each type cost the household. The cost of cassava cuttings (including those obtained through barter) should be recorded in the response boxes provided. Record the cost of the cuttings appropriately by type of cuttings reported.
- Question 18.21** Find out from the respondent how much the household spent on transporting the cassava cuttings to the homestead. The cost of transporting the seed could have been paid in cash and/or in kind. Record the amount paid in cash in the boxes marked 'CASH' and that

paid in kind, in the boxes marked 'KIND'. If either of the modes of payment was not used, then enter '0' in the last of the response boxes.

Question 18.22 Ask the respondent whether the cassava cuttings were available in time for the season. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided.

WEEDING

Question 18.23 Find out from the respondent how many members of the household took part in weeding cassava during the 1997/98 agricultural season. (This should include persons who were household members during the season but are no longer with the household at the time of the survey). Record the number of male members who were below 12 years and those who were 12 years and older in the appropriate boxes provided against 'Male'. Do the same for female members who took part in the task and record the responses in the boxes marked 'Female'.

Question 18.24 Find out from the respondent whether the household hired any casual labour when weeding cassava. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.

Question 18.25 Find out from the respondent how much was spent on the hire of casual labour to weed cassava. The hired casual labour could have been paid for in cash and/or in kind. Record the amount paid for in cash in the boxes marked 'CASH' and that paid in kind, in the boxes marked 'KIND'. If either of the modes of payment was not used, then enter '0' in the last of the response boxes.

Question 18.26 Find out from the respondent whether the household used any animal draught power for weeding purposes. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.

Question 18.27 Ask the respondent what type of animal draught power was used the most during weeding of cassava. Check-mark the response box for the answer given and enter its appropriate code in the box provided.

Question 18.28 Find out from the respondent about the source where the animal draught power was obtained from. Check-mark the response box for the answer given and enter its appropriate code in the box provided. If the response is either 'own' or 'borrowed' follow the skip instruction.

- Question 18.29** Find out from the respondent how much it cost the household to hire the animal draught power to weed cassava. The hired animal draught power could have been paid for in cash and/or in kind. Record the amount paid for in cash in the boxes marked 'CASH' and that paid in kind, in the boxes marked 'KIND'. If either of the modes of payment was not used, then enter '0' in the last of the response boxes.
- Question 18.30** Find out from the respondent whether the household used any mechanical power for weeding purposes. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.
- Question 18.31** Ask the respondent what type of mechanical power was used the most during weeding cassava. Check-mark the response box for the answer given and enter its appropriate code in the box provided.
- Question 18.32** Find out from the respondent about the source where the mechanical power was obtained from. Check-mark the response box for the answer given and enter its appropriate code in the box provided. If the response is either 'own' or 'borrowed' follow the skip instruction.
- Question 18.33** Find out from the respondent how much it cost the household to hire the mechanical power for weeding cassava. The hired mechanical power could have been paid for in cash and/or in kind. Record the amount paid for in cash in the boxes marked 'CASH' and that paid in kind, in the boxes marked 'KIND'. If either of the modes of payment was not used, then enter '0' in the last of the response boxes.

HARVESTING

- Question 18.34** Find out from the respondent how much area was under mature cassava during the 1997/98 agricultural season. Record the area reported to have been under mature cassava during the season, in the boxes provided. (Include fields, or parts of fields, which had cassava in them and were harvested during the 1997/98 agricultural season.
- Question 18.35** Find out from the respondent what the total area currently under mature cassava is. Record the area reported to be currently under mature cassava in the boxes provided.
- Question 18.36** Find out from the respondent whether the household harvested any cassava during the 1997/98 agricultural season. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.

- Question 18.37** Find out from the respondent how many members of the household took part in harvesting cassava during the 1997/98 agricultural season. (This should include persons who were household members during the season but are no longer with the household at the time of the survey). Record the number of male members who were below 12 years and those who were 12 years and older in the appropriate boxes provided against 'Male'. Do the same for female members who took part in the task and record the responses in the boxes marked 'Female'.
- Question 18.38** Find out from the respondent whether the household hired any casual labour when harvesting cassava crop. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.
- Question 18.39** Find out from the respondent how much was spent on the hire of casual labour to harvest the cassava. The hired casual labour could have been paid for in cash and/or in kind. Record the amount paid for in cash in the boxes marked 'CASH' and that paid in kind, in the boxes marked 'KIND'. If either of the modes of payment was not used, then enter '0' in the last of the response boxes.
- Question 18.40** Ask the respondent to give you the total quantity of cassava that was produced by the household. The quantity reported should be recorded in standard units (as indicated against the response boxes), and any fraction of the standard unit should be converted to a decimal fraction of the said unit. The decimal fraction of the quantity produced should be recorded to the right side of the decimal point.
- Question 18.41** Find out from the respondent whether the household incurred any cost to transport the produce from the fields to the homestead. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.
- Question 18.42** Find out from the respondent how much the household spent on transporting the produce from the fields to the homestead. The transportation cost could have been paid in cash and/or in kind. Record the amount paid for in cash in the boxes marked 'CASH' and that paid in kind, in the boxes marked 'KIND'. If either of the modes of payment was not used, then enter '0' in the last of the response boxes.

MARKETING

- Question 18.43** Find out from the respondent whether the household sold any of the cassava they produced. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the

skip instruction.

- Question 18.44** Ask the respondent to give the quantity of the produce that was sold for cash and the quantity exchanged for goods. Record the two quantities reported separately, in standard units, in their respective response boxes.
- Question 18.45** Find out from the respondent how much the household realized from the sale of the cassava they produced. The returns could have been realized in cash and/or in kind. Record the amount received in cash in the boxes marked 'CASH' and that received in kind, in the boxes marked 'KIND'. If either of the modes of payment was not used, then enter '0' in the last of the response boxes.
- Question 18.46** Ask the respondent to indicate where the household sold most of the cassava. Check-mark the appropriate box for the response given and enter the response code in the box provided.
- Question 18.47** Find out from the respondent during which month of the year the household sold most of the produce. Write the name of the month in the space provided, and enter the code for the month in the boxes provided.
- Question 18.48** Find out from the respondent how much the household spent to process the cassava for marketing. The processing cost could have been paid in cash and/or in kind. Record the amount paid for in cash in the boxes marked 'CASH' and that paid in kind, in the boxes marked 'KIND'. If either of the modes of payment was not used, then enter '0' in the last of the response boxes.
- Question 18.49** Find out from the respondent how much the household spent on transporting the cassava to the market. The transportation cost could have been paid in cash and/or in kind. Record the amount paid for transporting the produce to the market in the boxes provided. If no cost was incurred, then enter '0' in the last of the response boxes.

SECTION 3: VEGETABLE SALES

- Question 1.0** Find out from the respondent whether any member of the household grew any **vegetables for sale** during the 1997/98 agricultural season. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.
- Question 2.0** Ask the respondent to give the name(s) of the vegetable(s) grown for sale during the agricultural season. Write the name(s) of the vegetable(s) reported in the spaces numbered 2.1 to 2.7, and appropriate codes in the boxes provided. The codes are provided in the **Appendix**. For each of the vegetables reported, ask for the amount of money realized from sales

and record the figure in the boxes corresponding to the line where you wrote the vegetable name.

- Question 3.1** Find out from the respondent how much money they spent on purchasing vegetable seeds during the 1997/98 agricultural season. Record the amount reported to have been spent on buying vegetable seeds in the response boxes provided.
- Question 3.2** Ask the respondent to give the quantity of chemical fertilizers that were applied to the vegetables during the 1997/98 agricultural season. Record the quantity of chemical fertilizers used in the boxes provided.
- Question 3.3** Find out from the respondent how much money they spent on purchase of insecticides/pesticides/fungicides/herbicides used on vegetables during the 1997/98 agricultural season.
- Question 3.4** Record the amount of money spent on hired casual labour engaged to grow vegetables during the season in the boxes provided.
- Question 3.5** Find out from the respondent how much the cost of transporting vegetables to the market was during the 1997/98 agricultural season.

SECTION 4:

IRRIGATION, SOIL CONSERVATION AND ON-FARM STORAGE

- Question 1.0** Find out from the respondent whether any member of the household grew any crop or vegetables using irrigation during the 1997/98 agricultural season. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.
- Question 1.1** Find out from the respondent what implement(s) was/were used for irrigation during the 1997/98 agricultural season. Check-mark the box for the response given and record the response code in the set of boxes provided.
- Question 2.0** Ask the respondent whether the household practised any soil conservation method during the 1997/98 agricultural season. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.
- Question 2.1** Ask the respondent what method(s) of soil conservation was/were practised by members of the household. Check-mark the box(es) against the method(s) reported to have been practised during the season. Enter

the response code in the corresponding box provided.

- Question 3.0** Find out from the respondent whether the household has on-farm storage facilities. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.
- Question 3.1** Find out from the respondent whether there are any crops in store at the time of the survey. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.
- Question 3.2** Find out from the respondent what crops are in store at the time of the survey. Write the name(s) of the crop(s) stored in column 3.2 along each row. Enter the crop code in the column labelled 'code'.
- Question 3.3** Find out from the respondent what method of crop storage the household is using for the crops in store. Enter the code for the type of storage facility used by the households, in the box provided.
- Question 3.4** Find out from the respondent for how long they intend to keep the individual crops listed in column 3.2, in storage. Enter the code of period reported in the response box provided for each crop.
- Question 3.5** Ask the respondent whether the stored crops are protected against pests. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.
- Question 3.6** Ask the respondent what method of crop protection against pests during storage the household has used. Check-mark the box for the response given and enter its code in the box provided.
- Question 3.7** Find out from the respondent how much produce the household is able to store at present. Enter the total storage capacity reported, in kilogrammes, in the boxes provided.
- Question 3.8** Ask the respondent what amount of produce the household would like to store. Enter the response given, in the boxes provided.
- Question 3.9** Ask the respondent whether any member of the household has ever seen a demonstration storage facility. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.

- Question 3.10** If the response to question 3.9 was 'Yes', ask the respondent where the demonstration storage facility was seen. Check-mark the box for the response given and enter the code for the response in the box provided.
- Question 3.11** You will by this time have known from the response given in question 3.3 whether the household is using improved storage or not. If they are using improved storage, then check-mark the 'Yes' box, enter '1' in the box provided and follow the skip instruction. If they are not using improved storage, check-mark the 'No' box and enter '2' in the box provided.
- Question 3.12** Find out from the respondent why the household has not used new methods of crop storage. Check-mark the box for the response given and enter the response code in the box provided.
- Question 3.13** Ask the respondent if the household would like to use new methods of crop storage. If the response is 'Yes' check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', then check-mark the 'No' box and enter '2' in the box provided.

SECTION 5: LIVESTOCK AND POULTRY PRODUCTION AND MARKETING

CATTLE

- Question 1.1** Ask the respondent whether any member of the household raised any cattle of all kinds during the period 1st October, 1997 to 30th September, 1998. If the response is 'Yes', check-mark the 'Yes' box, enter code '1' in the box provided and proceed to ask questions on cattle. If the answer is 'No', check-mark the 'No' box, enter code '2' in the box provided and follow the skip instruction.

(Remember, raising here means keeping of animals on the holding, regardless of ownership).

- Question 1.2** Find out from the respondent how many cattle of all kinds were raised on the holding by members of the household on 1st October, 1997. Enter the number reported in the boxes provided.
- Question 1.3** Find out from the respondent how many cattle of all kinds are raised on the holding by members of the household on the survey day. Enter the total number in the response boxes provided. Include cattle temporarily away to grazing grounds and those purchased or given and are on their way to the holding. Exclude cattle in-transit to other holdings.

Question 1.4 Find out from the respondent how many of the cattle reported to be raised by the household actually belong to members of the household. Record the number of cattle that belong to members of the household, in the response boxes provided.

Since the questions on all types of cattle are the same (except one question on live births) the question-by-question instruction will generally apply to each type of cattle.

Question -.1 Find out from respondent whether any member of the household raised any of the named type of cattle during the reference period. If the response is 'Yes', check-mark the 'Yes' box, enter code '1' in the box provided and proceed to ask questions on the type of cattle. If the answer is 'No', check-mark the 'No' box, enter code '2' in the box provided and follow the skip instruction.

Question -.2 Find out from the respondent how many of the named type of cattle were raised on the holding by members of the household as on 1st October, 1997. Enter the total number of the named type of cattle, reported in the response boxes provided.

Question -.3 Find out from the respondent how many of the named type of cattle are raised on the holding on the survey day. Enter the number reported in the boxes provided.

Question -.4 (For calves only) Find out from the respondent how many calves were born alive during the reference period. Enter the number reported in the response boxes provided.

Question -.5 Find out from the respondent how many of the named type of cattle were purchased by cash/bartered into their possession during the reference period. Enter the numbers reported in the appropriate response boxes provided.

Question -.6 Find out from the respondent how much the household spent on the purchase/barter of the named type of cattle into their possession. For cash purchases, enter the amount in the boxes labelled 'CASH'. If the respondent reports that the household obtained the named type of cattle through barter, then find out the value in Kwacha of the item(s) exchanged for the named type of cattle (list the items and attach value to each of them). Enter the total value in the boxes labelled 'KIND'.

Question -.7 Ask the respondent how many of the named type of cattle the household received live as gifts (e.g., lobola) during the reference period. Enter the number of the named type of cattle in the response boxes provided.

Question -.8 Find out from the respondent how many of the named type of cattle were sold live for cash and/or barter by the household out of their possession during the reference period. Enter the numbers in the appropriate

response boxes provided.

- Question -.9** Ask the respondent to give you the amount of money realised from the sale of live cattle of the named type. Enter the figure in the boxes labelled 'CASH'. If the sales were by barter, ask the respondent to give you the value(s) of the item(s) for which the live cattle were bartered. Enter the total amount of the money reported in the response boxes labelled 'KIND'. Clearly show your work in the 'COMMENTS' space.
- Question -.10** Find out from the respondent how many of the named type of cattle were slaughtered for sale to realise cash during the reference period. Record the number of the named type of cattle reported in the boxes labelled 'CASH'. Also find out how many were slaughtered in order to barter the meat with such items as maize, millet, etc. Record the number in the boxes labelled 'KIND'.
- Question -.11** Obtain, from the respondent, the amount of money the household realised from the slaughter sales and the value(s) of the items exchanged for the meat (list all items). Enter the amount of money and sum of the value(s) in the appropriate response boxes provided.
- Question -.12** Ask the respondent to give you the number of the named type of cattle that were slaughtered for home consumption during the reference period. Cattle slaughtered during initiation ceremonies, weddings, funerals should be regarded as slaughtered for home consumption. Record the number of the named type of cattle slaughtered for home consumption in the boxes provided.
- Question -.13** Ask the respondent to give you the number of the named type of cattle that were given away as gifts (include the named type of cattle given away as lobola, i.e., bride price). Record the number in the response boxes provided.
- Question -.14** Find out from the respondent how many of the named type of cattle the household lost due to death from disease, theft, and/or other losses during the period 1st October, 1997 to 30th September, 1998. Enter the number reported in the appropriate response boxes provided.

PIGS, GOATS, SHEEP, AND DONKEYS

Since the questions on pigs, goats, sheep, and donkeys are the same, the question-by-question instructions will generally apply to these types of livestock. Some questions do not apply to donkeys.

The questions are numbered the same for these livestock types.

- Question -.1** Ask the respondent whether, during the period 1st October, 1997 to 30th September, 1998 any member of the household raised any of the named type of livestock. If the response is 'Yes', check-mark the 'Yes' box, enter '1' in the box provided and ask the rest of the questions. If the response is 'No', check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.
- Question -.2** Find out from the respondent how many of the named type of livestock were raised on the holding by members of the household on 1st October, 1997. Enter the number reported in the response boxes provided.
- Question -.3** Find out from the respondent how many of the named type of livestock are kept by members of the household as on the day of the survey. Record the number given in the response boxes provided. Include animals purchased or given and are on the way to the holding. Exclude those in transit to other holdings.
- Question -.4** Find out from the respondent how many of the named type of livestock were born alive during the reference period. Record the number of live births in the boxes provided.
- Question -.5** Find out from the respondent how many of the named type of livestock the household purchased by cash and/or bartered into their possession during the reference period. Record the numbers in the appropriate boxes provided.
- Question -.6** Obtain, from the respondent, the amount of money the household spent on the purchase of the named type of livestock and record this in the boxes labelled 'CASH'. If purchases were by barter, obtain the value(s) of the item(s) bartered for the animals (list the items and attach value to each of them). Record the total value, in Kwacha, in the boxes labelled 'KIND'.
- Question -.7** Find out from the respondent how many of the named type of livestock the household received as gifts during the reference period (include the animals that were received as lobola, i.e., pride price). Record the number of animals in the response boxes provided.

- Question -.8** Ask the respondent to give you the number of the named type of livestock that were sold and/or bartered during the reference period. Record the total number sold and/or bartered in the boxes provided.
- Question -.9** Obtain, from the respondent, the amount of money realised by the household from the sale of the named type of livestock and enter this in the boxes labelled 'CASH'. If sales were by barter, obtain the value(s) of the item(s) for which the animals were bartered, (list all items and attach value). Record the total value, in Kwacha, in the response boxes labelled 'KIND'.
- Question -.10** Find out from the respondent how many of the named type of livestock the household slaughtered for sale for cash and/or barter during the reference period (**This question does not apply to donkeys**). Record the response in the appropriate boxes provided.
- Question -.11** Obtain, from the respondent, the amount of money the household realised from the sale of the slaughtered animals and enter this in the boxes labelled 'CASH'. If the sales were by barter list all the items and attach values and record the total value in the boxes labelled 'KIND'. **This question does not apply to donkeys.**
- Question -.12** Find out from the respondent how many of the named type of livestock the household slaughtered for home consumption during the reference period (include animals that were slaughtered during initiation ceremonies, weddings and funerals). Record the response in the boxes provided. **This question does not apply to donkeys.**
- Question -.13** Find out from the respondent how many of the named type of livestock the household gave away as gifts during the reference period (include the animals given away as lobola). Record the response in the boxes provided.
- Question -.14** Find out from the respondent how many of the named type of livestock the household lost due to death from disease, theft, and/or other losses during the reference period. Record the response in the boxes provided.

CHICKENS, DUCKS, GEESE, GUINEA FOWLS AND RABBITS

Since the questions on poultry and rabbits are the same, the question-by-question instructions will have general applicability to all the types of poultry.

- Question -.1** Ask the respondent whether, during the period 1st October, 1997 to 30th September, 1998, any member of the household raised the named type of poultry/rabbits. If the response is 'Yes', check-mark box 1, enter 1 in the box provided and ask the rest of the questions. If the answer is 'No',

then check-mark box 2, enter '2' in the box provided and follow the skip instruction.

- Question -.2** Find out from the respondent how many of the named type of poultry/rabbits are kept by the household as on the day of the survey. Record the number kept in the boxes provided. Include those purchased or given and are on the way to the holding. Exclude those in transit to other holdings.
- Question -.3** Find out from the respondent how many of the named type of poultry were sold and/or bartered alive by the household during the reference period. Record the number sold and/or bartered in the appropriate boxes provided.
- Question -.4** Obtain, from the respondent, the amount of money realised by the household from the sale of the named type of poultry. Record the amount of money in the boxes labelled 'CASH'. If the sales were by barter, find out the value(s) of the item(s) for which the poultry were bartered (list all items and attach values to them) and enter the total value in the boxes labelled 'KIND'.
- Question -.5** Find out from the respondent how many of the named type of poultry the household received as gifts during the reference period. Record the number reported in the response boxes provided.
- Question -.6** Ask the respondent to give you the number of the named type of poultry that were sold/bartered during the reference period. Record the number sold for cash and the number bartered in the appropriate response boxes.
- Question -.7** Obtain, from the respondent, the amount of money realized by the household from the sale of the named type of poultry and the value(s) of the item(s) for which the poultry was bartered (list all items and attach values). Record the sum of the money and the total value of the items in the appropriate response boxes provided.
- Question -.8** Find out from the respondent how many of the named type of poultry the household slaughtered for sale for cash and/or for barter during the reference period. Record the response in the appropriate boxes provided.
- Question -.9** Obtain, from the respondent, the amount of money the household realized from the sale of the slaughtered poultry. Record the amount of money and the total value of the items received in the appropriate response boxes provided. For barter, list the items with values attached before getting the total value.
- Question -.10** Find out from the respondent how many of the named type of poultry the household slaughtered for home consumption during the past three months from the day of the survey, (include poultry slaughtered during initiation ceremonies, weddings, and funerals). Record the response in the boxes provided.

- Question -.11** Find out from the respondent how many of the named type of poultry the household gave away as gifts during the reference period. Record the response in the boxes provided.
- Question -.12** Find out from the respondent how many of the named type of poultry the household lost due to death from disease, theft, and/or other losses during the reference period. Record the response in the appropriate boxes provided.

SECTION 6: FISH FARMING

- Question 6.0** Refer to **Item 12** on the cover page of the questionnaire to find out whether the household was engaged in fish farming during the 1997/98 agricultural season. If the response is 'Yes', check-mark the 'Yes' box, enter code '1' in the box provided and ask the rest of the questions. If the response is 'No', check-mark the 'No' box, enter code '2' in the box provided and follow the skip instruction.
- Question 6.1** Find out from the respondent how many fish ponds were operated by the household during the reference period. Enter the number reported in the response boxes provided.
- Question 6.2** Find out from the respondent how many fish ponds are operating today. Enter the number reported in the response boxes provided.
- Question 6.3** Ask the respondent whether the household sold any fish from their fish farming during the reference period. If the response is 'Yes', check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', check-mark the 'No' box, enter code '2' in the box provided and follow the skip instruction.
- Question 6.4** Ask the respondent to give you the amount of money the household received from the sale of fish. Enter the amount in the boxes provided. If the payment was in kind indicate the items used, impute the values of these items and enter the total amount in the boxes provided.

SECTION 7: PERMANENT EMPLOYEES

- Question 7.0** Find out from the respondent whether the household had any permanent employees for agricultural work during the reference period. If the answer is 'Yes', check-mark box '1', enter '1' in the box provided and ask the rest of the questions. If the response is 'No', check-mark box '2', enter '2' in the box provided and follow the skip instruction.
- Question 7.1** Ask the respondent to give you the number, by sex, of the permanent employees who were in the household's employment during the reference period. Record, in the appropriate response boxes, the number of male and female employees reported by the household. Zeros, '00' in one set of the response boxes is valid. For example, if a household reports one male employee only, '01' will be entered in the set of boxes

labelled 'MALE' and '00', in the set of boxes labelled 'FEMALE'.

Question 7.2

Find out from the respondent how much in cash the household spent in the payment to male permanent employees and enter the amount given in the boxes for male labelled 'CASH'. Repeat the question for female permanent employees and enter the amount given in the boxes for female labelled 'CASH'. For payment in kind, list the items used for payment to male and female permanent employees separately, impute the values of the items and enter the total amounts in the boxes for male and female, respectively, labelled 'KIND'.

SECTION 8: ASSETS AND INVESTMENTS

INTERVIEWER: The questions on ploughs, harrows, tractors, other equipment, transport equipment, and lorries/vans follow a similar pattern. Deal with these in the same manner as outlined below.

Question -.0

Find out from the respondent whether any member of the household owned any of the named asset during the reference period. If the response is 'Yes', check-mark the 'Yes' box, enter code '1' in the box provided and ask the questions that follow. If the response is 'No', check-mark the 'No' box, enter code '2' in the box provided and follow the skip instruction.

Question -.1

Ask the respondent how many of the named asset the household had as on 1st October, 1997. Enter the numbers given in the response box provided.

Question -.2

Ask the respondent to give you the number of the named asset owned by members of the household as on the day of the survey. Enter the numbers reported in the response boxes provided.

Question -.3

Ask the respondent the value of the total number of the named asset that the household has as on the survey day. Enter the total value in the boxes provided.

Question -.4

Find out from the respondent whether the household purchased and/or bartered into the household's possession any of the named asset during the reference period. If the response is 'Yes', check-mark the 'Yes' box, enter code '1' in the box provided and ask the questions that follow. If the response is 'No', check-mark the 'No' box, enter code '2' in the box provided and follow the skip instruction.

Question -.5

Find out from the respondent how many of the named asset were purchased and/or bartered into the household's possession during the reference period. Enter the number(s) purchased by cash in the box labelled 'CASH' and those bartered in the box labelled 'KIND'.

Question -.6

Ask the respondent to give you the total amount of money spent on purchase of the named asset by cash, enter the amount in the boxes

labelled 'CASH'. For assets bartered into the household possession, list the items used in the barter, impute the values of these items and enter the total amount in the boxes labelled 'KIND'.

- Question -.7** Find out from the respondent whether the household spent any money on repair of the named asset during the reference period. If the response is 'Yes', check-mark the 'Yes' box and enter code '1' in the box provided. If the response is 'No', check-mark the 'No' box, enter code '2' in the box provided and follow the skip instruction.
- Question -.8** Ask the respondent to give you the number of the named asset that were repaired. Enter this number in the box provided.
- Question -.9** Find out from the respondent the amount of money that was spent on repairing the asset and enter this in the boxes provided.
- Question -.10** Find out from the respondent whether the household sold any of the named asset during the reference period. If the response is 'Yes', check-mark the 'Yes' box and enter code '1' in the box provided. If the response is 'No', check-mark the 'No' box, enter code '2' in the box provided and follow the skip instruction.
- Question -.11** Find out from the respondent how much money was realised from the sale of the named asset. Enter this in the boxes provided.
- Question -.12** Find out from the respondent to what use the household put most of the money realised from the sale of the named asset. Check-mark the appropriate response box and enter the corresponding code in the box provided. If the response is 'Other', specify the 'Other'.

DRAUGHT ANIMALS

Since draught animals are not the same as farm equipment, the questions asked on draught animals are somewhat different and are fewer than those asked on farm equipment.

- Question 7.0** Find out from the respondent whether any member of the household owned any draught animals during the reference period. If the response is 'Yes', check-mark the 'Yes' box, enter code '1' in the box provided and ask the questions that follow. If the response is 'No', check-mark the 'No' box, enter code '2' in the box provided and follow the skip instruction.
- Question 7.1** Ask the respondent how many draught animals the household had as on 1st October, 1997. Enter the numbers given in the appropriate response box provided.
- Question 7.2** Ask the respondent to give you the number of draught animals owned by members of the household as on the day of the survey. Enter the numbers reported in the appropriate boxes provided.

- Question 7.3** Ask the respondent to give the total value of the draught animals that the household has as on the survey day. Enter the total value in the boxes provided.
- Question 7.4** Find out from the respondent whether the household purchased and/or bartered into the household's possession any draught animals during the reference period. If the response is 'Yes', check-mark the 'Yes' box, enter code '1' in the box provided and ask questions that follow. If the response is 'No', check-mark the 'No' box, enter code '2' in the box provided and follow the skip instruction.
- Question 7.5** Find out from the respondent how many draught animals were purchased and/or bartered into the household's possession during the reference period. Enter the number(s) purchased using cash in the box labelled 'CASH' and those purchased through barter in the box labelled 'KIND'.
- Question 7.6** Ask the respondent to give you the total amount of money spent on purchase of the draught animals by cash, enter the amount in the boxes labelled 'CASH'. For draught animals bartered into the household's possession, list the items used in the barter, impute the values of these items and enter the total amount in the boxes labelled 'KIND'.
- Question 7.7** Find out from the respondent whether any draught animals were treated with modern medicine during the reference period. If the response is 'No', check-mark the 'No' box, enter code '2' in the box provided and follow the skip instruction.
- Question 7.8** Find out from the respondent how many draught animals were treated with modern medicine during the reference period. Enter the number reported in the boxes provided.
- Question 7.9** Find out from the respondent whether the household sold any draught animals during the agricultural season. If the response is 'Yes', check-mark the 'Yes' box and enter code '1' in the box provided. If the response is 'No', check-mark the 'No' box, enter code '2' in the box provided and follow the skip instruction.
- Question 7.10** Find out from the respondent the amount of money that was realised from the sale of the draught animals. Enter the figure given in the boxes provided.
- Question 7.11** Find out from the respondent to what use the household put most of the money realised from the sale of the draught animals. Check-mark the appropriate response box and enter the corresponding code in the box provided. If the response is 'Other', specify the 'Other'.

SECTION 9: CREDIT

LOANS FOR 1997/98 AGRICULTURAL SEASON

- Question 9.0** Find out from the respondent whether the household applied for any agricultural loan(s) from the **formal sector** for the 1997/98 agricultural season. If the response is 'Yes', check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.
- Question 9.1** Find out from the respondent how many loans the household applied for, for the 1997/98 agricultural season. Enter the number in the box provided.
- Question 9.2** Find out from the respondent if the household received the loan(s) they applied for, for the 1997/98 agricultural season. If the response is 'Yes', check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.
- Question 9.3** Find out from the respondent how many loans the household received out of the loans applied for, for the 1997/98 agricultural season. Enter the number in the box provided.
- Question 9.4** Find out from the respondent where the household obtained the loan(s) from. Check-mark the appropriate box(es) and enter the corresponding code(s) in the box(es) provided. If the response is 'NGO', 'Out-grower facilitator', then give the name of the organization. If the response is 'Other', specify the name of the source, check-mark the appropriate box and enter '7' in the corresponding box.
- Question 9.5** Find out from the respondent what the purpose of the loan obtained was. For example, if the purpose of the loan was to purchase agricultural inputs and animals, check-mark boxes 1 and 2 and enter the code(s) in the respective boxes. If the response is 'Other', then specify that purpose, check-mark the appropriate box and enter '7' in the corresponding box.
- Question 9.6** Find out from the respondent what kind of collateral/security was required in obtaining the loan(s). Check-mark the appropriate box(es) and enter the corresponding code(s) in the box(es) provided. If the response is 'Other', then specify the type of collateral/security that was offered, check-mark the appropriate box and enter '8' in the corresponding box. If the respondent indicates having entered into an agreement with the financier/lender that **the crop/produce would be sold to the financier/lender**, then such cases should be treated as **"No Collateral"**.
- Question 9.7** Find out from the respondent if the loan(s) was/were received in cash or in kind. Check-mark in the appropriate box and enter the corresponding

code in the box provided. If the respondent obtained loans in cash, follow the skip instruction.

- Question 9.8** For loans received in kind, find out from the respondent what items and of what value the household had applied for and received as loans. Write the names of the items in the spaces provided. In the corresponding boxes for each item, enter the code, value applied for and value received. For example, a farmer may have applied for a fertilizer loan, in the space below 'Item', write 'fertilizer' and in the next box enter the code (See Appendix). In the following boxes, write the value of the quantity of fertilizers applied for, for example K200,000 then, in the following boxes, you indicate the value of the quantity received, e.g., K150,000.
- Question 9.9** Ask the respondent, for the loan(s) received in cash, how much had been applied for. Record the figure reported, in the response boxes provided.
- Question 9.10** Ask the respondent to give the total amount of the loan(s) received in cash. Record the response in the boxes provided.
- Question 9.11** Find out from the respondent what the interest rate(s) was/were on the loan(s) received in cash. Enter the rate(s) in the boxes provided.
- Question 9.12** Find out from the respondent, for the loan(s) obtained in cash, how much of the debt has not yet been paid. Enter the amount in the boxes provided.
- Question 9.13** Find out from the respondent why the household did not apply for any loan(s) for the 1997/98 agricultural season. Check-mark the box corresponding to the appropriate response and enter the code in the box provided. If the response is 'Other', specify the reason and indicate the code in the box provided.
- Question 9.14** Find out from the respondent whether the household obtained any agricultural loan(s) in cash from **the informal sector** (friends, neighbours, money-lenders) for the 1997/98 agricultural season. If the response is 'Yes', check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', check-mark the 'No' box and enter '2' in the box provided and go to Section 10.
- Question 9.15** Find out from the respondent how much money was obtained as loan from the **informal sector** for the 1997/98 agricultural season and enter the amount in the boxes provided.

SECTION 10:

AGRICULTURAL EXTENSION SERVICES

- Question 10.0** Find out from the respondent whether any member of the household received any advice on the items listed during the 1997/98 agricultural season. If the response is 'Yes', enter code '1' in the box corresponding to the appropriate type of advice and answer the questions that follow. If

the response is 'No', enter code '2' in the box corresponding to the appropriate type of advice and follow the skip instruction.

- Question 10.1** Find out from the respondent what was the most important source of advice received in Q. 10.0. Enter the appropriate code in the box provided. These codes are below the question in the column corresponding to Q. 10.1. If the response is 'Other', specify the source and enter '9' in the box(es) provided.
- Question 10.2** Find out from the respondent how often the household received advice from the source(s) indicated in Q. 10.1. Enter the appropriate code in the box provided. These codes are below the question in the column for Q.10.2.
- Question 10.3** Where a household reports having received a particular type of advice during the 1997/98 agricultural season, find out from the respondent whether any member of the household used that advice. If the response is 'Yes' for any type of advice, enter code '1' in the box provided and follow the skip instruction. If the response is 'No', enter code '2' in the box provided.
- Question 10.4** Where a household reports having received a particular type of advice and did not follow it in the 1997/98 agricultural season, find out from the respondent why the advice was not used. Enter the appropriate response code in the box provided for the reason. The codes are obtained below the question in the column for Q. 10.4. If the response is 'Other', specify this in the space provided and enter code '4' in the box provided.
- Question 10.5** Find out from the respondent if any member of the household would like to receive some advice in cases where the household never received any, or more advice in cases where the household received some advice. If the response is 'Yes' for any of the type of advice, enter '1' in the corresponding box(es) provided. If the response is 'No', enter '2' in the corresponding box(es) provided.

SECTION 11: OTHER AGRICULTURAL SERVICES AND HOLDING INFORMATION

LIVESTOCK SERVICES

- Question 11.0** Find out from Section 3 whether the household raised any cattle during the reference period. If the response is 'Yes', check-mark the 'Yes' box and enter '1' in the box provided. If the response is 'No', check-mark the 'No' box, enter '2' in the box provided and follow the skip instruction.
- Question 11.1** Find out from the respondent whether the household vaccinated their cattle against diseases during the 1997/98 agricultural season. If the response is 'Yes', check-mark the 'Yes' box and enter '1' in the box

- Question 12.8** Find out from the respondent how the household obtained most of its top dressing fertilizers for the 1997/98 agricultural season. Check-mark the appropriate response box and enter the code in the box provided.

OTHER SERVICES AND HOLDING INFORMATION

- Question 13.0** Ask the respondent to indicate what **most important asset** the household would want to invest in if given the opportunity. Check-mark the appropriate box for the asset reported and enter its code in the box provided.
- Question 13.1** Ask the respondent what **most important asset** they would want their **community to undertake** if given an opportunity. Check-mark the appropriate box for the asset reported and enter its code in the box provided.
- Question 13.2** Ask the respondent whether they have ever heard about the **Rural Investment Fund (RIF)** commonly known as ASIP. If the response is 'Yes', check-mark the 'Yes' box and enter code '1' in the box provided. If the response is 'No', check-mark the 'No' box, enter code '2' in the box provided and **end the interview**.
- Question 13.3** Ask the respondent whether any member of the household is a member of a formally established group preparing a project for financing by RIF (ASIP). If the response is 'Yes', check-mark the 'Yes' box and enter code '1' in the box provided. If the response is 'No', check-mark the 'No' box, enter code '2' in the box provided and follow the skip instruction.
- Question 13.4** Find out from the respondent the subject of the project being prepared by the group to which the household is a member. Check-mark the appropriate box and enter the corresponding response code in the box provided. If 'Other', then specify the name of the project in the space provided and enter code '7' in the box provided.
- Question 13.5** Find out from the respondent whether the group of which the household is a member received any funds from the Rural Investment Fund (RIF). If the response is 'Yes', check-mark the 'Yes' box, enter code '1' in the box provided and follow the skip instruction. If the response is 'No', check-mark the 'No' box, enter code '2' in the box provided.
- Question 13.6** Ask the respondent to give the reason why the group has not had any funding from the Rural Investment Fund. Check-mark the appropriate box and enter the corresponding response code in the box provided. If 'Other', then specify the reason in the space provided and enter code '3' in the box provided.
- Question 13.7** Ask the respondent whether as a group, they applied for a loan(s) from the formal sector for the 1997/98 agricultural season. If the response is 'Yes', check-mark the 'Yes' box, enter code '1' in the box provided and

end the interview. If the response is 'No', check-mark the 'No' box, enter code '2' in the box provided.

Question 13.8

Find out from the respondent the reason why the group did not apply for a loan from the formal sector. Check-mark the appropriate response box and enter the corresponding code in the box provided.

Question 13.9

Find out from the respondent the reason why the household is not a member of a formally established group preparing a project for financing by RIF (ASIP). Check-mark the appropriate response box and enter the corresponding code in the box provided, and end the interview.

APPENDIX 1**CONVERSION TABLE FOR CASSAVA**

RAW CASSAVA		CASSAVA CHIPS	
RAW CASSAVA	CASSAVA FLOUR	DRY CHIPS	CASSAVA FLOUR
STANDARD BAGS	90KG BAGS	50KG BAGS	90KG BAGS
1/4	0.16	1/4	0.14
1/3	0.20	1/3	0.19
1/2	0.30	1/2	0.28
2/3	0.40	2/3	0.37
3/4	0.46	3/4	0.42
1	0.60	1	0.56
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 2

CONVERSION TABLE FOR COTTON AND TOBACCO

COTTON IN KG			TOBACCO IN KILOGRAMMES				
	WHEN	WHEN					
	BALE IS	BALE IS					
BALES	SMALL	LARGE	BALES	CP	EP & CB	SP	OTHER
1/4	19	38	1/4	18	11	10	13
2/3	25	50	2/3	23	13	20	17
1/2	38	76	1/2	35	23	30	25
2/3	50	100	2/3	47	30	40	34
3/4	56	112	3/4	53	70	45	38
1	75	150	1	70	45	60	50
2	150	300	2	140	90	120	100
3	225	450	3	210	135	180	150
4	300	600	4	280	180	240	200
5	375	750	5	350	225	300	250
6	450	900	6	420	270	360	300
7	525	1,050	7	490	315	420	350
8	600	1,200	8	560	360	480	400
9	675	1,350	9	630	405	540	450
10	750	1,500	10	700	450	600	500

CP - CENTRAL PROVINCE
 CB - COPPERBELT PROVINCE
 EP - EASTERN PROVINCE
 SP - SOUTHERN PROVINCE

APPENDIX 3**CONVERSION TABLE FOR GROUNDNUTS**

STANDARD BAGS UNSHELLED	QUANTITY SHELLLED 80KG BAGS
1/4	0.06
1/3	0.08
1/2	0.11
2/3	0.15
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 4**CONVERSION TABLE FOR AREA**

ACRES	HECTARES	LIMA	HECTARES
1/4	0.10	1/4	0.06
1/3	0.13	1/3	0.08
1/2	0.20	1/2	0.12
2/3	0.27	2/3	0.17
3/4	0.30	3/4	0.19
1	0.40	1	0.25
2	0.81	2	0.50
3	1.22	3	0.75
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
25	10.12	13	3.25
30	12.15	14	3.50
35	14.18	15	3.75
40	16.20	16	4.00
50	20.25	17	4.25
		18	4.50
		19	4.75
		20	5.00

APPENDIX 5**CROP CODES**

CROP	CODE
Maize	01
Sorghum	02
Rice	03
Millet	04
Sunflower	05
Groundnuts	06
Soyabeans	07
Seed-cotton	08
Irish Potatoes	09
Virginia Tobacco	10
Burley Tobacco	11
Mixed Beans	12
Ground Beans	13
Cow peas	14
Velvet	15
Coffee	16
Sweet potatoes	17
Cassava	18
Kenaf	19
Cashew nuts	20
Other	21
FRUIT	
Oranges	22
Tangerines	23
Grape Fruit	24
Bananas	25
Pineapples	26
Guavas	27
Paw paws	28
Avocado	29
Water melon	30
Mangoes	31
Other fruit	32

VEGETABLES	
Cabbage	33
Rape	34
Spinach	35
Tomato	36
Onion	37
Okra	38
Egg plant	39
Pumpkin	40
Chilli	41
Choumolia	42
Cauliflower	43
Carrot	44
Lettuce	45
Grean beans	46
Green maize	47
Other vegetables	48