



FOREST LIVELIHOOD AND ECONOMIC SURVEY (FLES) OF THE INTEGRATED LAND USE ASSESSMENT II

Data Collection Manual

for Supervisors and Enumerators

REPUBLIC OF ZAMBIA

Ministry of Lands, Natural Resources and Environmental Protection: Forestry Department

Central Statistical Office

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ABBREVIATIONS

CSA	Census Supervisory Area
CSO	Central Statistical Office
FAO	Food and Agriculture Organization of the United Nations
FD	Forestry Department
FGD	Focus Group Discussion
FLES	Forest Livelihood and Economic Survey
GMA	Game Management Area
НН	Household
ILUA	Integrated Land Use Assessment
KII	Key Informant Interview
LUV	Land Use/Vegetation type
PA	Protected Area
PSU	Primary Sampling Unit
NWFP	Non-wood Forest Product
REDD	Reduced Emissions from Deforestation and Forest Degradation
SEA	Standard Enumeration Area
SFM	Sustainable Forest Management

1.1 Introduction

From 2005-2008, Zambia conducted its first national Integrated Land Use Assessment (ILUA) for the purpose of generating baseline data on the state, management and use of forest and tree resources. ILUA combined both biophysical and socioeconomic data on a national scale and extended into related sectors, providing data on, for example, agriculture, grazing and land tenure. The second phase of the Integrated Land Use Assessment (ILUA II) was launched as a result of the need to strengthen capacity in planning and implementation of Sustainable Forest Management (SFM). ILUA II seeks to increase capacity building, generate more reliable data and improve the analysis and dissemination of information. Further needs include responding to the increased data requirements of the REDD+ mechanism, which warrant a more comprehensive and intensified biophysical inventory at the sub-national level.

ILUA II seeks to address existing national level information needs to effectively capture data on and monitor the socio-economic importance of forests, forest governance and informal forest-based economy. Arising from this needs assessment, ILUA II Forest Livelihood and Economic Survey (FLES) was born. It serves to complement the data which is being collected under ILUAII on the biophysical state and management of Zambian forests and to shed more light on the demands on and the benefits from these forests to the Zambian population. The intention is to implement FLES at national scale with a view to intensify the exercise in future surveys.

FLES represents the culmination of information needs assessments on three topics: forest governance monitoring, socio-economic monitoring and informal forest economy. The data needs determined to be of most importance to be included within the FLES were derived from the following processes: extensive feedback from stakeholders on forest data needs, analysis of policy-relevant data needs on forests, consideration of relevant REDD safeguards, review of gaps in data collected from other national surveys and consideration of the success of the past socio-economic questions in ILUA I. The questions compiled in this manual are a result of this comprehensive process and they attempt to build upon the socioeconomic questions posed in ILUA I.

This manual contains the field work instructions for socioeconomic data collection which will be conducted separately from the biophysical data collection by enumerators from the Central Statistics Office (CSO).

The FLES field data collection manual describes:

- Sampling design for FLES
- Socioeconomic data collection/field work procedure
- Socioeconomic field forms and parameters within the:
 - Key Informant interview
 - Focus Group Discussion
 - Household survey
 - Individual interviews (m & f)

Related field forms are featured in Appendices I, II & II.

1.2 Objectives of FLES

The overall objective of this study is to generate baseline information on the use and management of forest and tree resources in both rural and urban communities. This information is key to understanding both pressures on as well as essential benefits derived from Zambian forests in order to better identify policy strategies and ensure sustained benefits from forests, ideally through sustainable forest management practices. It is hoped that the generation of FLES data will aid in identifying strategies necessary to increase the contribution of forest-related sectors to GDP and support the development of relevant performance indicators for REDD+ purposes as well as the forest sector generally.

FLES has the following specific objectives:

- a) Assess importance of forest products and services to livelihoods, including in relation to food security and energy
- b) Assess accessibility to, user rights, and management of forest resources
- c) Contribute to meeting REDD+ needs on monitoring safeguards and governance

1.3 General concepts and definitions

It is important that field team members acquaint themselves with the general concepts and definitions used for this survey before embarking upon the fieldwork.

- QualifiedA qualified respondent is an adult member of the household who is
knowledgeable about livelihood and other activities of the household. 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. Knowledgeable female members are
encouraged to participate as respondents.
- Adult Refers to persons who are 12 years or older.
- **Child** Refers to persons who are under 12 years of age.
- 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. A household considers one person as the head of the household
- Household member A household member is:
 - Any individual who in the last 12 months has lived with the household for at least six months regardless of whether they have intentions to stay or not;
 - 2. An individual attending school away from home;
 - 3. Newly born babies;
 - 4. Individuals who are newly wedded-in;

	5. Individuals who have stayed for less than six months but have come to live with the household		
Non-household	A non-household member is:		
member	 An individual who may have left the household with no intention of rejoining the household; Individuals who are married away. All other persons/individuals who do not meet the criteria for household membership 		
Forest product	For the purpose of this survey and all its questionnaires refers to forest products in and out of forests. Code A lists the main forest products. Trees/tree products managed in a systematic manner fall under agricultural products (as in code N). Forest products are usually those found wild in the nature (can also be found in agricultural land).		
Wood product	Wood products include the following forest products:		
	1. Industrial wood		
	2. Fuelwood		
	3. Charcoal		
	4. Wood for wood carvings		
	5. Wood for poles		
Non-wood forest product	Goods derived from forests that are tangible and physical objects of biological origin other than wood. Non-wood forest products include the following:		
	6. Fruits, nuts, seeds, roots, berries, etc.		
	7. Mushrooms		
	8. Fodder		
	9. Rattan		
	10. Plant medicines		
	11. Herbs and spices		
	12. Dying / tanning		
	13. Seeds (for regeneration purposes)		
	14. Fibres (for rope etc.)		
	15. Other plant products		
	16. Wildlife (including bush meat)		
	17. Beekeeping activities / honey collection		
	18. Caterpillar		
User group	User groups are defined as people who relate to and use the forest and tree resources on a frequent basis. Different forest products can have different user groups. User groups can originate in the area or come from outside, and they		

can be subsistence-oriented or commercial.

Silviculture	It consists of the technical interventions undertaken in the forest to improve the productivity of the trees and ensure the sustainability of the forest, in other words, the management of forests.		
Standard Enumeration Area	The Standard Enumeration Areas are geographical units with well-known borders. They are the basic units for statistical data collection and primary sampling. They cover the entire country.		

1.4 Purpose of the manual

The purpose of the manual is to guide supervisors and enumerators in the planning and implementation of the FLES. The contents of the manual should be understood clearly by enumerators and supervisors and the manual should be referred to at all times during field work. It also serves as a reference document for anyone who wishes to understand how the Forest Livelihood and Economic data has been collected.

2.1 Target Population

The target population is all households residing in Zambia at the time of the survey, excluding those residing within national parks, institutionalized population groups and diplomats accredited to Zambia. Population residing within national parks is excluded as there are not many people residing in national parks (mainly people in tourism sector, like lodge owners), and it would be logistically difficult and time-and money-consuming to move within these large SEAs which have few and scattered inhabitants. Within national parks movements are only authorized in a vehicle and survey teams should have been accompanied by wildlife officers. It should be noted that apart from national parks, other protected areas and Game Management Areas are included in the survey sampling frame (strata 1-3).

The survey will be conducted in all the ten (10) provinces, namely: Central, Copperbelt, Eastern, Luapula, Lusaka, Muchinga, Northern, North-Western, Southern and Western.

2.2 Sampling frame

This study uses a stratified two-stage cluster sampling procedure. At the first stage, 252 standard enumeration areas (SEAs) are selected from 3 strata. At the second stage of the sampling, 20 households from each selected SEA will be sampled for household interview. In addition, within each SEA, between one and three key informants will be selected for interview and two focus groups discussions will be undertaken (one with a men's group and one with a women's).

<u>At the first stage</u>, after excluding the SEAs that fall within national parks, the frame (SEAs) will be explicitly stratified into three (3) strata, based on the percentage of forest cover in the SEA. The three strata identified are the following:

- 1. The first stratum includes SEAs in which forest cover equals or exceeds 70% of its total area (resulting from the 2010 forest map polygons).
- 2. The second stratum includes SEAs in which forest cover is more than 30 % but less than 70% of the total area.
- 3. The third stratum includes SEAs in which forest cover is 30 % or less. This includes also SEAs where there is no forest cover.

<u>Note</u>: The classification of these strata is obtained by overlapping the 2010 forest cover map and the SEAs provided by CSO using GIS tool. The first stage sampling frame is presented in figure 1.

<u>At the second stage</u>, households will be stratified into four categories, depending on their involvement in the utilization of forest products. The stratification at household level will be as below:

- 1. HH's collecting forest products for sale.
- 2. HH's collecting forest products only for own consumption (but not for sale).
- 3. HH's not collecting forest products but which buy forest products or acquire those through bartering.
- 4. Other HH's.

With the selection of 3 strata and 4 household categories, the sampling frame will result in 12 domains for the analysis purposes. In addition, it is possible to analyze data at national level for rural and urban areas.

2.2.1 Sample size

The FLES survey will be based on a nationally representative sample of 252 SEAs. This means that between 252 and 756 key informants will be interviewed, 504 focus groups assembled for focus group discussions and 5,040 households selected and interviewed. The sample will cover all the provinces.

The following assumptions were made in determining the minimum required sample size:

- Proportion (51 percent)
- Level of precision (6 percent)
- Design effect (1.5)
- Expected response rate (95.3 percent)

Based on the assumptions and the sample size formula, the resulting sample size is 420 households. Since 12 domains have been proposed, the total sample size will be 5,040 households. The proposed cluster take is 20 households. This translates into 252 primary sampling units/SEAs.

The household survey is the core of FLES with the purpose to generate nationally reliable statics on the use and importance of forest resources to households. The sample size of FLES is designed to give reliable estimates at national level for these domains. These domains represent the supply and demand side of forest products.

The intention of key informant interviews is primarily to provide and inform supervisors and enumerators in the field, and only part of the questions will provide statistical information. Focus group discussions on the other hand will to some extent provide statistics related to forest resource use at community level, however with a much lower level of confidence than the household survey. It also helps to triangulate information received from the household survey.

2.2.2 Sample allocation

The Kish Square Root allocation method was used to allocate the sample, based on the 2010 population on the sampling frame. This method is a compromise between the equal and proportional allocation methods. Given the variability in terms of size among the 3 strata, the method ensured that large as well as smaller strata had a fair representation. A total of 84 SEAs will be selected from among SEAs in each of the three strata of SEAs on the frame. Within each of the 3 strata, the sample will be allocated proportionately to the rural and urban parts. This will ensure that both rural and urban based households are represented. This generates six groups as per the table below:

Table 1. Stratification of SEAs.

	RURAL SEAs	URBAN SEAS
Stratum 1	Forest cover ≤ 70%	Forest cover ≤ 70%
Stratum 2	30% < Forest cover < 70 %	30% < Forest cover < 70%
Stratum 3	Forest cover ≤ 30 %	Forest cover ≤ 30 %

The study employs probability sampling procedures. A two-stage stratified cluster sample design is used. In the first stage, SEAs have been selected using the Probability Proportional to Estimated Size (PPES) procedure. Measure of size is the number of households. The selection is presented in the map below and more detailed explanation of the first stage selection within each strata can be found in appendix V.

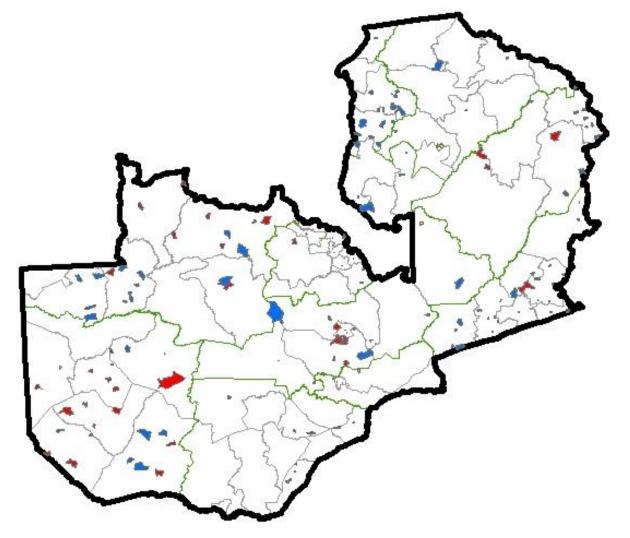


Figure 1. Map of selected standard enumeration areas. Sampled SEAs have been selected from strata 1-3. SEAs from strata 1(most forested) are marked with blue, SEAs from strata 2 with red and SEAs from strata 3 (least forested) with yellow. Some, especially urban, SEAs are so small that these are not visible on a nationwide map.

2.2.3 Selection of households and other respondents

Selection of key informants for interview

A key informant is defined as someone who is able to offer the field team perceptive information about the local settings, important events and circumstances and social structures and should be contacted and interviewed when arriving at the site.

In each SEA, between one and three key informant interviews should be conducted. How many interviews are required to obtain the necessary information will vary from SEA to SEA. It is important that the interviews provide a good and solid informative foundation for the continuation of the field work, especially with regards to information about user groups which is used to form and select the focus groups.

Possible key informants include:

- External key informants: e.g. officers from local government departments, NGOs, extension workers and local administration representatives.
- Internal key informants: e.g. community members with an in-depth knowledge of the local use and users of natural resources, such as community leaders, community representatives, school teachers, customary leaders, community based organizations and owners.

When identifying potential individuals to serve as key informants for a SEA, the supervisor should make sure that the individuals represent different interest with regards to the forest resource. For example, a local forestry official will have a different perception of forest use than a village elder and they will have a different interest associated with their perspectives. The idea of interviewing two individuals with different interests and perspectives is to be able to increase reliability of the data by comparing and interpreting their answers. Including both knowledgeable women and knowledgeable men as key informants adds to the reliability and comprehensiveness of the data.

Selection of focus group discussion participants

Selection of participants, timing and location of the focus group discussions can be arranged with key informants. There are three principal scenarios for arranging the focus group discussions, based on the proximity of the community to forest/wooded land as well as existence of forest product collectors in the SEA. Selection of focus group participants will be done based on these three scenarios (see table 2). Ideally there should be 8-10 focus group participants representing various user groups, as instructed in table 2. In a location with exceptional variety of users, larger groups can be considered to accommodate all different forest product users.

The focus group should be representative of:

- Different forest product user groups present in the SEA;
- Different families and socio-economic backgrounds in the SEA (e.g. not only family members of the key informant);
- Different age groups (rule of thumb: at least three participants that are younger than 35 years and at least three participants that are older);

When possible, focus group could represent different geographic locations in the SEA.

Scenarios also determine which part of the questionnaire will be asked. E.g. in cases where there is no forest near-by and no forest product users present, only sections 1, 2 and 6 in the *focus group questionnaire* will be asked.

Scenario no.	Scenario description	Selection of focus group participants	Questions to be covered	
1	There is forest/wooded land in the area or nearby and there are forest product harvesters/collectors present in the community.	 Variety of forest product users using the resources from nearby forest (see representative list of participants above). 	All questions in focus group questionnaire.	
		 Any community members who can answer the demand side (questionnaire section 6). 		
2	There is no forest/wooded land nearby but there are forest product harvesters/collectors present in the community (they go elsewhere to collect forest products).	 User groups originating from the community but who are collecting products elsewhere. Any community members who can answer the demand side (questionnaire section 6) 	Sections 1, 2, 3, 6	
3	There is no forest/wooded land nearby and there are no forest product collectors in the community (this can be the case e.g. in urban areas).	 Variety of community members who can answer to the demand side (questionnaire section 6) 	Sections 1, 2 and 6 and questions 3.23 and 3.24	

Table 2. Scenarios for focus group selection.

Scenario 1

area or nearby

Forest product

harvesters/collectors present

in the community

Scenario 2

Forest/wooded land in the

No forest/wooded land in the area or near by

Forest product harvesters/collectors present in the community Scenario 3

No forest/wooded land in the area or near by

No forest product harvesters present in the community

Selection of households - second stage sampling

During the second stage of sampling, 20 households in each SEA will be selected. Households will be selected from different forest product user categories by a systematic probability sampling scheme using the linear systematic sampling procedure. The second stage of sampling will be implemented in the field

following a household listing exercise, prior to the commencement of data collection. Listing will involve the listing of all households residing in the selected SEA. The list of households from this exercise is the basis for sampling second stage sampling.

A listing form and household stickers will be used for the listing. A listing form will be used for listing all the households residing in the selected Standard Enumeration Areas (SEA) while stickers will be pasted on all the listed households for identification purposes. If a SEA is too large (more than 250 households), it will be segmented and only one segment will be selected for the survey. If a SEA is too small (less than 50 households), it will be merged with an adjacent SEA.

During the listing, teams will identify households that collect forest product for sale or bartering, those that collect forest products only for own consumption and those that do not collect forest products but buy/acquire them through bartering. Households that did not fall into any of the above categories should also be identified. Detailed instructions are in the box below and in the listing book (appendix VI).

Non-contact households and those that refused to cooperate should be identified as well and indicated by writing 'NON CONTACT' or 'REFUSAL' in the margin against them. Put a mark (x) in the relevant column under column 10 for households that have been identified as either 'NON CONTACT' or 'REFUSAL.' Non-contact: i.e., if for some reason, no responsible adult member was available during the period of the survey. Note: The Supervisor has to ensure that the interviewer visits these non-contact households at least three times during listing.

Box 1. Instructions for listing

PURPOSE OF THE LISTING

The listing for the Forest Livelihood and Economic Survey (FLES), provides the names of the Household Heads for the sample that must be selected before the actual fieldwork begins. The results from the listing will provide current information on the household and will give an indication of the size of the household as well as numbers of households that collect or acquire forest products. You will write the names of the Household Heads and their locations so that the interviewer will be able to find the household during the detailed enumeration.

CANVASSING GENERAL RULES

- a. Before you start canvassing, study your area map to identify the boundaries and plan your route that will ensure that you do not skip any households.
- b. Begin your canvassing at one boundary of your work area and keep a logical sequence.
- c. List each household in the order that you come across it while canvassing.
- d. If in doubt, consult your supervisor.

LISTING PROCEDURE

Identification: Write the name of the Province, District, Constituency, Ward, and your name in the spaces provided. Enter the identification codes for the CLUSTER, Province, District, Constituency, Ward, Region, and Census Supervisory Area (CSA), Standard Enumeration Area (SEA) in the boxes provided. Then indicate the dates you start and end listing in each book. Finally, the supervisor should also indicate when he started and ended checking the listing book.

Question 1: Write the village or locality name in which the household is located. The interviewer will need to find the households for the survey data collection during the next field operation and will need to know where to return.

Question 2: The household serial numbers for each SEA will be sequentially numbered starting with '001'.

Question 3: The full name of the household Head must be neatly printed starting with the family name. Include any name the person is commonly known by if different from the full name. This may be a nick-name or other title.

Question 4: Check mark the appropriate box to indicate the sex of the household Head and enter the appropriate response code in the box provided. If popularly known by any other name record that other name in brackets.

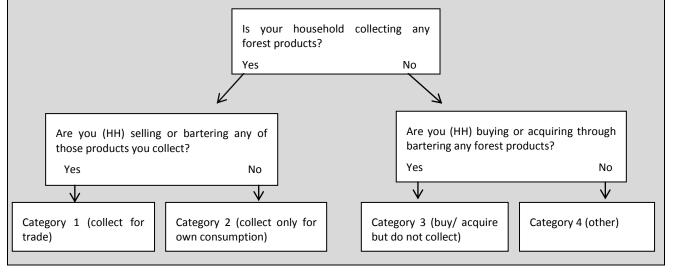
Question 5: Enter the number of persons who normally live, cook and eat as one household. The question extends past the family members and should include house-help and farm labourers if they feed from the household's food supply. Probe to find out if this number also includes babies because sometimes infants are forgotten in the count of household members.

When entering the number of persons, place one digit per box. The first box represents the tens place. For example, if the household contains only one person, and the information is entered as '1', it could be misinterpreted if the '1' is placed in the first box. The data entry clerk may enter it as a `10`. So to avoid this problem, write `0` before each single digit. Thus, `1` should be written as '01', '2' as '02', etc.

Question 6: With the help of the question table below, find out from the respondent:

a) Is the household collecting any forest products? If the response is 'Yes', find out if they sell/barter any of those products they collected (category 1) or if all is going for own/family consumption (category 2).

b) If the household is not collecting any forest products, find out if they buy or acquire through bartering any forest products (category 3) or if they do not use forest products at all (category 4).



Household categorization procedure

In order to increase the chance that the household sample captures collection for sale, collection for own consumption as well as demand of forest products, we will stratify the contacted households into four categories. The sample size is 20 household in each SEA. 6, 6, 6, and 2 households will be selected in category 1, 2, 3 and 4 respectively (see further explanation on household selection further below). Category 4 consists of households that neither collect nor buy/acquire forest products, and thus most of the questions in the questionnaire do not apply to them. Therefore this category is given less weight in the sampling frame.

Category 1: All households collecting forest products for sale/barter. These are households that have a 'Yes' or Code 1 in Column 7. Identify such households and put a mark (x) in column 1 under column 10 in the row of each such households.

Category 2: All households that collect forest products for own consumption but not for sale. These are households that have a 'No' or Code 2 in Column 7. Identify such households and put a mark (x) in column 2 under column 10 in the row of each such households.

Category 3: All households buying/acquiring forest products through bartering but not collecting themselves forest products. These are households that have a 'Yes' or Code 1 in Column 8. Identify such households and put a mark (x) in column 3 under column 10 in the row of each such households.

Category 4: All other households. This includes households that neither collect nor buy/barter forest products. This category will include households that have a code 2 against them in column 8. Identify such households and put a mark (x) in column 4 under column 9 in the row of each such households.

Guidelines for sampling of households

Assign **Sampling Serial Numbers**, within each category, following where you put (x). The sampling serial numbers will sequentially be assigned, starting with '1' in each category. In addition assign serial numbers to 'NON CONTACT' and 'REFUSAL' households in the appropriate column in col. 9.

NOTE:

- a) <u>The sum of the last sampling serial numbers in categories 1, 2, 3 and 4 must be equal to the total</u> <u>number of Contacted households listed in the SEA.</u>
- b) <u>The sum of the last serial numbers in col. 9 must be equal to the total number of households listed</u> <u>in the SEA. (i.e., 1, 2, 3, 4 and Non Contact households)</u>

Summary of Households Listed in SEA

Column a. Gives the categories as allocated to households in Column 9 of the Listing Book. Note that 'Non-Contact includes refusals.

Column b. Enter, against each category, the serial number assigned to the last household in the category (Column 9).

Column c. Enter the sample size of each category according to the sample distribution

Column d. Calculate the Sampling Interval of each category by dividing the total number of households listed in that category by the sample size of that category.

Column e. The enumerator will be told by the supervisor which column to use on the table of random numbers (appendix VII). This gives the first sampling serial selected for each category.

Enter the sum of categories 1, 2, 3 and 4 against 'Subtotal'. This will give the total number of households that were contacted during listing.

Enter the sum of categories 1, 2, 3, 4 and 'Non Contact/Refusal' against 'Total Listed'. This will give the total number of households listed.

The sample will be selected only from categories 1, 2, 3 and 4 meaning that the sample will be drawn only from households that gave complete response during the listing exercise.

Sample Household Selection

The total sample size in each SEA is 20 households. Where all the four categories have adequate numbers of households (6 or more for categories 1-3 and 2 for category 4) listed, the sample households distribution will be Category 1 - 6 HH's, Category 2 - 6 HH's, Category 3 - 6 HH's and Category 4 - 2 HH's.

In cases where there are shortfalls in category 1, include all households in this category and allocate the difference from 20 equally to categories 2 and 3. If the differences from 20 cannot be equally allocated to the three categories, category 2 will receive one more HH than category 3. Where there is no household in category 1, allocate 9 HH to category 2, 9 HH to category 3 and 2 HH to category 4.

As a general rule, when there are shortfalls in any category, include all households in that category. Thereafter, allocate the difference equally to the remaining categories of categories 1, 2, 3. In case the number cannot be divided equally to those categories, give more to the category 1, then category 2.

Where all households in an SEA fall in one category, select all the required 20 sample households from that category.

Box 2. Examples of sample distribution							
House	Households Listed Sample Distribution						
<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
15	18	22	57	6	6	6	2
4	30	24	70	4	7	7	2
1	19	14	100	1	9	8	2
0	12	15	102	0	9	9	2
21	0	5	111	13	0	5	2
6	0	4	89	6	0	4	10
0	0	16	76	0	0	16	4
0	26	99	1	0	10	9	1
0	0	0	98	0	0	0	20

Systematic Sampling Procedure

The allocated number of sample households to each category will be selected independently using the following procedure:

- 1. Divide the total number of households listed in the category by the number of households to be selected (according to sample allocation) to give the Sampling Interval (SI). Calculate this to two (2) decimal places.
- 2. Start with category 1.
- 3. From the table of random numbers, starting from the top of the column assigned by the supervisor, get the first random number you come across between '1' and the SI, inclusive. The random number obtained will give the first corresponding selected household in the sample. This number will be your random start (RS).
- 4. Add the SI to the random start (RS), and the integer part of the sum will give the second household to be in the sample.
- 5. Continue with the procedure, adding SI to each successive sum until you have all the allocated sample size for the category.
- 6. Put a triangle round the first sampling serial number to be selected. Put a circle round each subsequent sampling serial number (column 11), in the listing book, corresponding to the numbers you have worked out for each category. The sampling serial numbers circled will indicate the households selected for the sample.
- 7. Transcribe onto the 'LIST OF SELECTED HOUSEHOLDS' sheet, now copying the household serial numbers (column 2) of the selected households.

Box 3. Using the table of random numbers

This example makes the following assumptions;

- The total number of households assigned sampling serial numbers in category four (4) is 52
- The sample allocated to category 4 is 6
- The sampling interval is 10.4

Below is an explanation of how the random number between 1 and the interval should be obtained.

General guidelines:

- "COLUMN" refers to the 10 COLUMNS numbered 0 10. Each of these has five (5) numbers.
- "column" refers to a single digit column.

Steps

- 1. Randomly select a COLUMN from the table (appendix VII) of random numbers below.
- 2. Select the random number between 1 and SI from the first column if the SI is a single digit number, from the first two columns if the SI is a two digit number, from the first three columns if it's a three digit number. Go down the columns (appropriately) until you get the random number between 1 and the SI. In our example, the SI is 10.4, which is a 2-digit number. Therefore, go down the first two columns. As you go down, the first number you will come across is 11, but this number is greater than 10 so it falls out. The second number you will come across is 21, but it is also greater than 10 so it also falls out. The third number you will come across is 10. This number is between 1 and the SI. This means 10 is the selected random

number. This number is your random start (RS).

3. The household with a sampling serial number corresponding to the random number obtained will give the first selected household in category 4.

Category (a)	H/H's Listed (b)	Sample size (c)	Sampling interval (d)	Random start (e)
1	5	5	1.00	1
2	22	7	3.14	3
3	18	6	3.00	2
4	78	2	39.00	9
Sub total	123			
Non contact	6			

Summary of household listing and sample household selection

In category 1, all the 5 households are selected.

129

Total

Cat. 2	Cat. 3	Cat. 4
SI = 22/7 = 3.14	SI = 18/6 = 3.00	SI = 78/2 = 39.00
RS = 3	RS = 2	RS = 9
3 + 3.14 = 6.14	2 + 3.00 = 5.00	9 + 39.00 = 48.00
6.14 + 3.14 = 9.28	5.00 + 3.00 = 8.00	
9.28 + 3.14 = 12.42	8.00 + 3.00 = 11.00	
12.42 + 3.14 = 15.56	11.00 + 3.00 = 14.00	
15.56 + 3.14 = 18.70	14.00 + 3.00 = 17.00	
18.70 + 3.14 = 21.84		

In category 1 all (5) households are selected. In category 2, households bearing sampling serial numbers 3, 6, 9, 12, 15, 18 and 21 are selected. In category 3, households bearing sampling serial numbers 2, 5, 8, 11, 14, 17 and 20 are selected. Households selected in category 4 are those bearing sampling serial number 9 and 48.

Note: A copy of the completed list of selected households' sheet should be filled out. It will be attached to the listing book(s) and sent to Lusaka.

3. FIELDWORK PROCEDURE

3.1 Preparation for field work

Before conducting actual fieldwork, a number of preparatory steps are required.

3.1.1 Contacting communities and relevant local government departments (supervisors)

If possible, responsible governmental institutions (CSO and FD) should, prior to initiating fieldwork, inform local authorities about the FLES and request for local support during fieldwork. A recommendation and identification letter written by the relevant government institutions, asking for support and assistance to the field team members should be issued to facilitate fieldwork.

3.1.2 Undertaking bibliographic research (supervisors)

Secondary information is necessary to prepare the field survey and carry out the interviews. Available documentation related to local policy and legislation, natural resource and forest inventory, species, biodiversity, farming systems, forest management issues, people, customs and livelihoods and socioeconomic context, etc. have to be studied to enable the team members to understand and to build better knowledge on the local realities.

The field team leader is responsible for obtaining this data, but should obtain support of district/provincial authorities to compile and make available information required for FLES, such as:

- Demographics/population census;
- Crop, livestock, forest, range, soil and water resources and production data;
- Socioeconomic data (markets; infrastructure, health, etc.); and
- Policy and legislation application, especially local by-laws, etc.

In addition, with the help to the forest product measurement table (appendix IX), pre-determine local units of quantification and size of units (meda) from visiting local market prior to conducting interview. This will help you to record the quantities of collected, sold and bought forest products in a standardized form.

3.1.3 Reviewing the FLES manual (supervisors and enumerators)

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

3.1.4 Reviewing the questions on the survey questionnaire (supervisors and enumerators)

Before you begin interviewing, practice using the questionnaires 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.

3.1.5 Organizing survey materials (supervisors and enumerators)

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

3.2 Organization of field work

The Forest Department (FD), Central Statistics Office (CSO) and FAO appoint a person(s) as the head of the assignment. CSO head of assignment is responsible for ensuring that the fieldwork is conducted in the required manner and is expected to make sure all the logistics for the field operations are in place. However, during fieldwork monitors and supervisors will assist the head of assignment at CSO. Monitors will monitor progress and randomly check questionnaires from the supervisors to ensure quality control and discipline.

When arriving to a district, field teams will first go to the District Forestry Office from where they will be accompanied and facilitated by a local forestry officer.

3.2.1 Survey implementation

The survey will be implemented by field teams, whose composition will vary according to the number of SEAs to be covered in the respective provinces. Teams will move from SEA to another in groups. The composition of the teams by zones will be as follows:

Zones	Province	No. of SEAs	No. of Monitors	No. of Supervisors	No. of Enumerators	No. of Teams
1	Lusaka	32	10	9	45	9
	Central	12	1			
	Copperbelt	84	1	3		
2	North-Western	34	1		20	3
	Luapula	27	1			
	Muchinga	16	1	3		
3	Northern	28	1		13	3
	Eastern	23	1			
	Southern	29	1	3		
4	Western	15	1		12	3
	Total	300	10	10	45	10

3.2.2 Field team composition

The field teams for data collection involving household questionnaire, key informants interview and focus group discussion per district will comprise of:

- Monitor (1)
- Supervisor(1)
- Enumerators (No. to be determined by number of HH in SEA)
- Driver (1)

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

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

- Attend the training course and all other scheduled meetings
- Study this manual very carefully and remember the main points
- Become fully familiar with the questionnaire
- Complete all the data collection activities as required
- Review each completed questionnaire for accuracy and completeness
- Enumerate all the households sampled in the SEA
- Perform any other Survey related functions which the supervisor may assign from time to time
- Keep all information received completely confidential.

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

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

Duties of the team members are described in the following:

Monitor

The monitors have been designated specific duties as indicated below:

- To conduct training of enumerators and supervisors;
- To oversee the whole survey project and ensure that it succeeds.
- To check that the field arrangements are operational and moving according to plan;
- To conduct random checks in order to ensure efficiency in data collection. Especially, monitors should take part in some of the focus group discussions to ensure that the approach and questions are well understood and communicated by the field teams.
- To advise on other technical aspects of the survey etc.

Supervisor

A supervisor will lead a group of enumerators and he/she will be responsible for the day-to-day operations of the survey during fieldwork. For example, a supervisor can begin a day by observing several interviews. At the end of the day, he/she could discuss the day's problems and resolve how the difficulties could possibly be solved, and also direct enumerators on methods of canvassing the next day's interviews. It is important that the supervisor not only gives clear instructions to his enumerators but that he listens carefully to what the enumerators have to say.

In details, as a supervisor, you should:

<u>Sensitize</u>

• Ensure that the traditional leadership, local community leaders including local authorities, committee members, etc. is aware of the survey.

Allocate assignments

- Organize the work schedule, supply adequate questionnaires and other equipment to enumerator and edit their work on a daily basis. Be available to answer any questions the enumerators might have. Keep the following points in mind when making assignments:
 - Plan the work carefully so that it will be completed within the allocated time.
 - Do not show favoritism when giving assignments.
 - Keep record of what and how much is issued to each enumerator.
 - Remind enumerators to review the questionnaires before leaving the respondent and once again before submitting the completed questionnaires to you.
- At the end of each field day you should as much as possible, have group meetings or "debriefings".
- Show SEA boundaries on the ground to enumerators.
- Allocate enumerator with their work areas and households for interviews. (See chapter 2 for details on second stage sampling procedure).
- Deal with cases of non-response (see box 4)
- Conduct interviews where the enumerator is unable to, e.g. in the case of illness.

Control quality

• Check that the enumerator is listing all the households in his allocated SEAs and enumerating all the selected households in the area. This can be done by checking that the houses listed have

stickers on them and by you calling on several houses randomly to make sure the enumerator has been there and interviewed the household. Ensure that listing books are filled in fully and correctly. If all is checked and fine, write your name and date of final checking of the listing booklet.

- Observe how the enumerator is carrying out the enumeration and help him/her overcome difficulties.
 - Observation is the best method of evaluating the enumerator's ability to apply the concepts and procedures covered in training to the job. During the first days of listing and first days of enumeration, you should observe all your enumerators.
 - As supervisor, you must work every day. Organize your supervision in such a way that you physically go round with your enumerators on a rotation basis and also check the completed work.
 - Your presence should not make either the enumerator or the respondent feel uncomfortable. Never interrupt the interview to correct the enumerator. Review any errors with the enumerator immediately after the interview. If the enumerator incorrectly omitted any items, tell him or her to return immediately to obtain the lacking information.
- Edit listing sheets and questionnaires for completeness, consistency and legibility. You must edit ALL the questionnaires page by page and question by question before submitting them to the monitor.
 - Ensure that enumerator writes legibly and neatly.
 - \circ $\;$ Check that the identification particulars are properly entered.
 - There should be no blank spaces against questions which should be answered.
 - Ensure that enumerator follows the skip pattern.
 - Whenever you correct your enumerator's work you should use pencil and never erase anything. Cross out the wrong entry and then write the correct one on top or beside or below the crossed out one.
 - Check that the enumerator is carrying out his work according to the detailed instructions in this manual. You need to be very familiar with the manual.
 - In case of omissions (some items were mistakenly omitted by the enumerator; respondent refused to answer certain questions; or the enumerator was interrupted), the cases should be returned to the enumerator for a revisit. Refused questions should be documented in the questionnaire by the enumerator. Additional attempts should be made in the case of interviews that are partially completed due to interruptions, in order to complete them.
- Provide routine supervision and randomly observe interviews. Supervisors will lead and supervise on the average 5 enumerators.

Act as a link between survey coordination and field teams

- Communicate with the Monitors on a regular basis to report the status of the survey, relay problems encountered in the field, and receive directives on survey operations and resolutions to problems raised.
- Collect field work material, letter of introduction/ID cards and filled-in questionnaires from enumerators and forward those to the survey coordinator.
- Document problems encountered in a report which you should submit to your monitor after field work is over. As the field work progresses you need to constantly keep records of such things as dates, special problems and how you resolved them, whether there were any delays/disruptions in the field work, any conflicts encountered, any peculiar situations, and any other issues that come up that need to be brought to the attention of the organizers of this surveys.

Box 4. Dealing with non-response (instructions for supervisors)

A major goal of every survey is to obtain the highest number of completed interviews possible. This means that the case of "non-response" should be kept to the absolute minimum.

Refusal

Enumerators are told to contact you if someone refuses to be interviewed. You should remember that most refusals are not final and that with tact and right approach most refusals can be converted to complete interviews.

From the original enumerator, try to get an idea of the reasons for refusal, the strength of the refusal, and whether the original enumerator thinks another enumerator would be more successful. You should reassign the case to someone else if you think another person can get the interview. Otherwise, you should visit the household yourself and try to obtain the interview. In most cases, at least three follow-up attempts should be made to accept refusals.

One technique you could use to win an interview is by explaining the following to the respondent:

- That the information that will be collected is strictly confidential and will only be seen and used by sworn in CSO staff only and that it will be used for statistical purposes only. Their names or other identities will not be published anywhere.
- Explain the purpose of the survey and how important it is for them to provide the information requested and that if everyone did not provide the required information the Government will not be able to evaluate its policies and programs.

Another technique would be to use the village headman, the chief/chieftainess, school teachers, priests, etc to win an interview or interviews for you as these are persons the local people identify with and might be more convinced by them than a 'stranger'.

But remember never to threaten a would be respondent with violence or the 'Law taking its course', as this might even damage the survey further especially if they incite others not to cooperate with you. Be polite and courteous always even in cases where you are rebuked or chased by the respondent.

Respondent not at home or unavailable

When cases are given to you with the status "non-contact", you should check to make certain that one or more call backs have been made. Since the survey continues, the enumerator should take every opportunity until the respondent returns. Also check with neighbours for useful information about the expected return of the respondent.

Enumerators

The enumerators will be experienced CSO data collectors who have the capability of understanding some of the ongoing local forestry issues and will be trained on how to conduct the interviews. The main duty of the enumerator is to collect data specified in the various questionnaires. The enumerator is a key person in the data collection phase.

Each enumerator will be assigned to a supervisor. Supervisor will allocate work areas for the enumerators and show the enumerator around the work area boundary so that they are familiar with it before they start their assignment. Supervisor will also assist enumerators to establish rapport with the area leadership and the households. However, enumerators do not have to be entirely dependent on their supervisor to establish good rapport with the households because he/she will not be with enumerators all the time. After enumerators have been assigned their work areas and boundaries identified, they will start their assignment.

Enumerator responsibilities:

- You must introduce yourself on every visit and explain to the respondent the reason for your visit before starting the interview.
- You must read and intensively study your manual to become thoroughly familiar with its contents in order to do your work efficiently.
- You must inform the respondents that the information they provide will be used in statistical form only and that their names will not be associated with their answers when the data are analyzed.
- 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. This will enable the interviews to be comparable. The question order needs to be standard from respondent to respondent.
- You must make every effort to write legibly, and keep the documents you are working on clean and free from damage.
- During fieldwork enumerators must keep regular contact with their supervisor to enable him/her to make adjustments to the work program. If necessary, enumerators should also report any problems to him/her, such as any persons refusing to be interviewed.
- You must attend to all 'call-backs' as early as possible, and must be punctual in keeping all appointments made.
- Ensure that all survey materials are looked after properly. You are required to return to your supervisor the following immediately after the fieldwork is completed:
 - Questionnaires (both completed and unused)

- The letter of introduction/the identity card
- Any other field work material

Driver

Driver's responsibility is to ensure smooth movement of the teams as well as to take care of the maintenance and safety of the vehicles. He/she may also assist the team in any other practical duties during the field work.

3.2.3 Ethics and code of conduct

A comfortable relationship between the interviewer and the respondent is the foundation for good interviewing. The person's impression of you during your visit will largely determine the atmosphere during the interview. If you seem bored, uninterested or hostile, the respondent will probably act in a similar way. Persons tend to react favorably if they think the interviewer is someone they will enjoy talking to. 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. You should also be sensitive enough to encourage honest, sometimes intimate conversation. Clear intelligent thinking is needed to ensure that the correct questions are asked and that confused and contradictory answers are sorted out during the interview. Conditions may be hard sometimes, and so you should be well-motivated and enthusiastic about the study and convinced of its value.

You should always be polite and try to establish good relationships with all households you are dealing with and with local authorities within the area assigned to you. You should stimulate interest in the survey so that the best information possible is obtained from the respondents. Briefly explain the importance of such information without causing any alarm.

If a respondent leads you into a conversation outside your work, you will do well to politely decline. Remember, there are many households that you need to visit. However, if a respondent is hostile or not very cooperative with you, consult your supervisor who will seek cooperation from the respondent.

As a field team member, it is your responsibility to keep completely confidential anything you learn and observe during an interview.

To keep in mind:

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 and
sworn-in by CSO/MLNREP/FAO to work on this survey can be allowed to see the information you
collect, nor must you discuss such information with anyone. Never disclose any facts about anyone
you interview to any unauthorized people outside the survey process.

- You must not solicit or permit any unauthorized person to assist you with your survey work. No matter how intelligent they are, they will not have had the training you have or the authority to participate in interviewing.
- $\circ~$ You must not combine survey work with any canvassing for personal gain, church, political party or any other organization.
- You must NEVER become involved in religious or political discussions while you are on the job.
- Remember to dress appropriately when collecting data from the various households. You should always be clean and dressed in a manner acceptable to the community where you are operating.
- FINALLY, do NOT miss any appointments with respondents without showing due cause. You may not be accorded another opportunity, which will be problematic regarding to the fact that it is an already sampled house (by interval).

Box 5. Tips for ensuring quality of data

Make sure that you record the information to the best knowledge of the respondents and NOT 'you'. You must record answers neatly and clearly (in a legible manner). You must also keep your survey materials and equipment clean and in good order.

Remaining neutral

You must maintain a neutral attitude with the respondent. You must be careful that nothing in your words or manner implies criticism, surprise, approval, or disapproval of either the questions asked or the respondent's answers. You can put respondents at ease with a relaxed approach and gain their confidence. The respondent's answers to the questions should be obtained with as little influence as possible by the interviewer. Another interviewer should be able to obtain the same answers as you.

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

Asking questions in the order presented

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

Asking questions as worded

Do not change the question. If the respondent does not seem to understand the question, simply repeat it. In order for the information from the questionnaire to be put together as intended by the analysis team, each question must be asked in exactly the same way to 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 1 of this manual as well as the descriptions provided for each question in this manual.

Avoid showing the questions to the respondent

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

Skip-instructions

In addition to the questions you must ask, the questionnaire contains instructions for you, the interviewer. The instructions are to enable you to use the questionnaire correctly and must be followed closely. 'Skip' instructions usually are written out. You must read the 'Skip' instructions with care, so that you do not skip questions, which should have been asked. Likewise, it is important that you skip to the correct question when necessary. When questions are not asked because of a 'Skip' instruction, leave the response boxes blank.

EXAMPLE: QUESTION 6.14

INTERVIEWER: Did your HH plant any trees during the last 5 years?

Yes=1, No=2 (if code '3' in Q. 6.13, the answer is 'Yes')

No \rightarrow go to section 7

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. All these instructions are italicized.

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 is incomplete, 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 detailed response which is 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. Probing therefore, has two major functions:

• To motivate respondents to expand upon or clarify their answers;

• To make the respondent's answer precise so that irrelevant and unnecessary information can be eliminated.

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

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 used 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 skill, tact and persistence.

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 fully or precisely without introducing bias. Bias is the distortion of responses caused by the interviewer favoring one answer to another.

EXAMPLE OF A BIASED PROBE

QUESTION: What quantity of charcoal has the HH in total collected during the last 12 months?

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 that 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/she misinterprets it, unable to make up his/her mind, strays from the subject, the most useful technique is to repeat the question.

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/she 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/her thoughts.

c) Repeating the Respondent's Reply

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

d) Neutral Questions or Comments

Neutral questions or comments are frequently used to obtain unbiased, clearer and complete responses. These kind of probes indicate that the interviewer is interested and they make a direct request for more information.

In probing, it will sometimes be useful to appear slightly puzzled by the respondent's answer and indicate 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 cooperate with someone he/she 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.

e) Probing when respondent initially indicates 'I don't know'

Occasionally, a respondent will give an `I don't know' answer. This can mean a number of things. For instance:

• The respondent does not understand the question and answers `I don't know' to avoid saying he/she 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/she 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 the case is. 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/she 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/she says `I don't know' again.

When to stop probing

You should stop probing when you have a clear and 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.

Controlling the interview

While it is important to maintain a pleasant and courteous manner in order to obtain the respondent's cooperation, 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/she 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/her livelihood that is covered at a later time during the interview. You can record these answers to avoid asking later for information that is already provided. Yet do not jump yourself to future questions, but continue to ask questions in the order provided.

Recording of answers

Writing words

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

Recording numbers

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

Recording Fractions

Sometimes 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/she has 2½ hectares of land, make sure that when you record his/her answer, you convert it to decimal numbers. That is, change the fraction ½ to 0.5 and record 2.5 hectares. Never record a fraction, always convert it.

The following are some commonly used fractions and their decimal equivalents rounded to the nearest twodecimal places. $\frac{1}{2} = 0.25$ $\frac{1}{2} = 0.50$ $\frac{3}{4} = 0.75$ $\frac{1}{2} = 0.33$ $\frac{2}{3} = 0.67$

Interviewer comments/calculations

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

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

An important phrase to remember is `When in doubt, write it out'. If you cannot understand what a respondent means, write out his response in the open space. This will be of great use to your Supervisor and to office staff in trying to resolve any problems in the questionnaire. Any arithmetic should also be done in the open space. When making a comment in the open space, always indicate the question to which the comment relates. If there are several parts to the question (e.g. different columns for different forest products), be sure to indicate the part/product referred to.

Checking your work

You must always edit/check your work before you hand it over to your supervisor.

- Check your work for legibility. You should record answers in a clear format. The person entering the data in the computer and the person checking your work should be able to read your writing.
- Check your work for completeness. There should not be any omissions.
- Check your work for consistency. There should be consistency between answers recorded in the various sections of the questionnaire. For example a biological child of the household head should not be older than the head. The amount of money spent should not be TOO MUCH ABOVE what is earned.
- After checking your work and ensuring that it is error free, then handover your work to your supervisor.

3.2.4 Equipment and materials

The following are materials for your use during fieldwork:

- (1) Interviewer's manual
- (2) Questionnaires
- (3) SEA maps
- (4) Pencils
- (5) A pencil sharpener and eraser
- (6) A plastic folder
- (7) A notebook
- (8) A letter of introduction /identity card

3.3 Data collection activities

Upon arrival in the selected SEA, each field team should, through its supervisor, start its work by visiting primary government offices involved in local/community based development (e.g. the district forest office). Local government staff should help contacting the authorities, community leaders and land owners in order to introduce the field team and its programme of work in the area. The local staff may also provide information about access conditions to the site and about the people who can be locally recruited as guides or workers with required local knowledge on relevant subjects (land use practices, forest use, etc.). They should also inform the local people about the project and fieldwork and generate interest in the survey findings by local stakeholders.

As soon as the field team supervisor has obtained and completed the necessary permissions and fieldwork preparations in the SEA (such as arranging appropriate housing and catering, detail planning of fieldwork logistics, etc.) the field team should embark the actual data collection activities. First step in the data collection process is for the field team supervisor to select the local respondents to participate in FLES (see subsequent sections for a description of the selection procedures for the different types of interviews).

When required, the supervisor may identify and request district forest officers with particular knowledge about local circumstances and language to accompany and assist the field team during activities.

Data collection consists of undertaking four types of interviews, each with separate questionnaires (detailed descriptions of the questionnaire contents are provided in chapters IV-VII):

- 1. Key informant interviews
- 2. Focus group discussions (male group and female group)
- 3. Household interviews
- 4. Individual interviews at household level: one interview with male household member and one with female household member

To accommodate that all field team members get a comprehensive understanding of the local circumstances, it is important that four types of data collection activities are carried out in the order displayed above. Further, it is crucial that enumerators not only are assigned to undertake household and individual interviews (step iii and iv) but also attend and pay careful attention during key informant interviews and focus group discussions (step i and ii), as information obtained in one stop may become valuable in a subsequent step.

Overview of content in the four types of interview are provided in table 1 below and described in details in the following sections, including details on how to select respondents.

Table 3. Overview of FLES data	collection activities.
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Type of interviewGroups/individuals to beinterviewedinterviewed	Number of interviews	Information obtained
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Key informant interviews	Key Informants in SEA providing general information about the community/SEA. Two types of key informants exists: External key informants: includes officers from local government departments, NGOs, extension workers and local administration representatives. Internal key informants: includes community members with an in- depth knowledge of the local use and users of natural resources, such as community leaders, community representatives, school teachers, customary leaders, community based organizations and owners.	As many as required to establish a reliable set of information.	 Logistics Proximity of forest/wooded land to area of interest Ownership of forest/wooded land Forest products & users Settlement history Population dynamics Timber extraction & silvicultural practices
Focus group discussions	Representative groups or individuals living and/or using forest / land resources in the area.	In each SEA, two focus group discussions are conducted: one with only female participants, and one with only male participants.	 User group characteristics Access to forests Forest products collection & availability Forest management Rules/legislation, awareness & compliance Demand for forest products
Household interviews	Member or members of household, answering on behalf of the entire household.	A predetermined number of households living in selected SEA. Selection of households should follow selection procedure explained in chapter 2.	 HH composition HH assets & characteristics HH activities Access to land & user rights HH tree & forest use and management HH sources of income Contribution of trees & forest products to HH income Wood and non-wood forest product marketing & trading Food security & coping strategies Purchasing/Bartering of wood and non-wood forest products Energy sources & utilization

Individual interviews	Two individual persons in each selected household, a man and a woman. Each respondent should respond on behalf on him/herself.	Two individual persons in the households: one adult man and one adult woman.	 Sources of income Contribution of wood and non-wood forest products to income & consumption Forest product collection Forest product marketing
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3.2.1 Key informant interviews

The intention of key informant interviews is to establish some basic knowledge about the area in which the survey is being conducted. The key informant is asked to provide information on local history, availability and use of local forest resources, demographics, silvicultural practices, etc. Information obtained through key informant interviews will subsequently help enumerators to conduct more concise and relevant interviews at focus group, household and individual levels. Moreover, the information will in general contribute to the cross-checking of obtained information in the survey, which is why it is crucial that enumerators participate in key informant interviews.

Key informants are external (living outside the area) or internal (living in the area) individuals with particular knowledge about the area, the land/ natural resource use and the local community. They do not have to be local land resource users themselves. In the process of planning of the fieldwork, local government officials, leaders of local development organizations and local administration will be contacted for logistics and planning purposes. They may provide very useful background information and may be selected as external key informants. They may also provide literature and other existing data. Some individuals within the community may possess an overall and in-depth knowledge of the local settings, costumes and use of natural resources and may serve as internal key informants. If required, internal informants may also assist enumerators during interviews (e.g. to translate local language, explain particular local circumstances and crosscheck recorded information).

Key informant interview can be conducted by anyone in the field team, both supervisors and enumerators. In any case, it is important that all enumerators and the supervisor participate in the interviews as the obtained information will form the basis for the remaining data collection activities. Monitors might also benefit from participating (as he/she will get valuable information that will help him/her when validating data collected by the field teams).

The key informant may help identifying community members to participate in the focus group discussions and to arrange time and place for the discussions. For the key informant interviews, the form "*Key informant interview*" should be used.

3.2.2 Focus group discussion

The purpose of focus group discussions is to capture information about the general use of and contribution of forest resources in the community. The strength of focus group discussion, compared to household survey, is that it provides an efficient and fast way to capture information about some general patterns in the community. Topics covered in the focus group discussion are for that reason those that are particularly

relevant at community level and where responses can be suspected to be somewhat similar at household and personal levels (e.g. mode of forest management in the area and awareness of legislation).

In each SEA, two focus group discussions will be conducted: one with women, one with men. The purpose of conducting two separate discussion is to catalyze and inspire for free and open discussion among participants and to ensure that gender specific answers are captured (men and women might not always have same perception on the importance and use of forest resources). To the extent possible, lead facilitator for the women's group should be a female survey team member, and lead facilitator for the men's group should be a conducted so that community members from the opposite sex are not there to listen and in a way that all participants are allowed to speak and are heard in the discussion.

3.2.3 Household questionnaire

The aim of the household survey is to gauge the usage of and income from forest products and services, access to land and land tenure, interaction of forests with agriculture and other land uses, forest clearing and planting practices and importance of forest in general to households' livelihoods. The survey also looks at household energy sources and fuel wood and charcoal utilization. Questions asked do in part overlap with what was asked in focus group discussions however seek to capture information relevant for the specific household. Information obtained in key informant interviews and focus group discussions should be used by the enumerator as backdrop for and guide the household interview and used to cross-check respondents' statements. Thus, it is important that enumerators have taken part in these previous data collection activities.

A household is considered to be a person or a set of persons who together occupy a housing unit or part of it and consume and/or make common provision for food or other goods. While there might only be one household representative participating in the household interview (e.g. head of household), he/she should be directed to answer on the behalf of the household as such, and not on behalf of him/herself. He/she will subsequently have the opportunity to answer on his/her behalf (in the individual interview).

Enumerators in the field team will visit all the sampled households in a SEA. If enumerators are not able to make contact with a selected household on the first visit, they are supposed to try again later. Before interviewing a household, enumerators should first find out if they are ready to be interviewed immediately or make an appointment to interview them at a later time or date. In case it is deemed that a selected household will not be become available within a suitable amount of time, the field team supervisor should sample an alternative household following the procedure described below.

Household questionnaire will be administered by two enumerators. After the main household questionnaire, these two should split to conduct the individual interviews within the same household (i.e. there should be assigned both a male and a female enumerator to each household interview). Individual interviews are to be conducted simultaneously to ensure that the other respondent (or other household members) is not present and influencing the other interview.

The household interview should be conducted with members of the household knowledgeable of the household livelihoods and forest product utilization. There might be several persons attending the interview, however, there should be a main respondent. The latter should be a knowledgeable adult member of the household who is present (e.g. head of the household or a spouse). Main respondent is to be recorded to Q.2.8. In addition to the main respondent, it is advised that answers are sought from other household members, especially when they are the ones doing the activity that is being discussed (especially sections on tree planting, forest product collection and energy sources).

Example:

Main respondent is a man (household head). His wife is responsible for cooking and collection of fuel wood. Answers to the energy section should therefore be sought from the wife, as she is likely to know better the amounts of fuel wood used, and time used to collect it.

3.2.4 Individual questionnaires

Sections 13 and 14 of the household questionnaire are administered as individual questionnaires. These should be conducted after having completed the household interview in each selected household. Section 13 is asked from a male member of household and section 14 from a female member of the household. Individual interviews should be arranged separately so that only the interviewed household member is present. This is to ensure capturing correct data even in cases where e.g. spouses do not wish to disclose their personal income to each other.

When there are two enumerators conducting the household interview, they can split after the main interview to conduct the individual interviews at separate locations. Female enumerators should be used to interview women and male enumerators should be used to interview men.

Individual interviews are only conducted with one adult male and one adult female in each household. Typically the interviewed persons are the head of the household and the spouse, but in absence of a spouse any other adult member can be interviewed instead. If there is no adult male, leave section 13 empty. If there is no adult female, leave section 14 empty.

Examples:

- 1) Household consisting of a male head, wife(s) and 4 children. \rightarrow Conduct the male individual interview (section 13) with the household head and female individual interview (section 14) with (one of) the wife(s).
- 2) Household consisting of a female head with her children, one of which is 18 years. → Conduct the female individual interview (section 14) with the household head and male individual interview (section 13) with the adult son.
- 3) Household consisting of a female head with under-age children. → Conduct the female individual interview (section 14) with the household head. Skip section 13.

If there is an adult male (/ female) but he or she is absent at the time of the interview, you should try to arrange to meet with him/her at another time. If it is not possible during 3 days, skip the interview and leave that section (13 or 14) empty.

4. DESCRIPTION OF THE KEY INFORMANT INTERVIEW

KII 1 RESPONDENT

K1.1-K.1.4 Find out the name, sex, position and telephone number (if any) of the key informant.

KII 2 EXISTENCE AND OWNERSHIP OF FOREST / WOODED LAND IN THE AREA

K2.1 Find out if there is any forest or other wooded land within the community or in close proximity to the community. Close proximity is defined by people being able to regularly visit the forest / wooded area, e.g. for forest product collection, without using motorized transport. Make sure that any area with trees where people can collect forest products is included.

K2.2 If there is a forest / wooded land near the community ('yes' in K2.1), find out under which land tenure does the forest / wooded land fall in. Options include state land, customary land and private land (land which is on leasehold). If other, specify.

KII 3 FOREST PRODUCT USERS HARVESTING PRODUCTS IN THE AREA

This section is asked only if there is forest / wooded land near the community ('yes' in K2.1).

K3.1 Find out if anyone is collecting/harvesting forest products in that forest / wooded land which is in or in close proximity of the community. If answer is 'no', you can try to probe more in order to ensure that the key informant has taken into account all possible wood and non-wood forest products. If no one is collecting forest products from, go to section KII4.

K3.2 Find out which wood or non-wood forest products are harvested / collected in the near-by forest or wooded land and record one product per row.

K3.3 For each collected/harvested product, find out which are the main user groups. If more than one user group is collecting the product, rank the groups, starting from the most important. "Most important" is defined as the use group collecting/harvesting largest quantities. If there are more than four user groups, it is enough to rank three most important ones.

Code	Option	Definition	
	Users from within the community (main location of the users, irrespective of the place of product harvesting)		
a)	Community	People living in the community, who harvest forest products mainly for	

	members	their own use.	
b)	Small-scale commercial	People, associations or small business entities located in the community / area in question that harvest forest products for selling / bartering. Family/individual/association businesses not involving regularly outside hired labour are counted as small.	
c)	Large-scale commercial	Large companies / commercial entities harvesting and selling forest products. Large refers to companies that use regularly hired labour.	
Users fr	om outside the comn	nunity (who use forest products from the community / area)	
d)	Subsistence oriented users	People from outside the community, who come to collect forest products mainly for their own use. (e.g. people from a neighbouring village coming to collect fuel wood)	
e)	Small-scale commercial users	People, associations or small business entities coming from outside the community / area that harvest forest products for selling / bartering. Family/individual/association businesses not involving regularly outside hired labour are counted as small.	
f)	Large-scale commercial	Large companies / commercial entities coming from outside that harvest forest products for selling purposes. Large refers to companies that use regularly hired labour.	
Other	·		
g)	Other	Any other forest product user group that cannot be classified in the above options. Specify.	

KII 4 FOREST PRODUCT USERS THAT ORIGINATE WITHIN THE COMMUNITY BUT GO ELSEWHERE TO HARVEST

This section seeks to capture information about forest product harvesters that are living in the community / area but are harvesting elsewhere. For example, there can be people who go elsewhere to produce charcoal (e.g. if there are no available sources in the nearby surroundings), or the area can host a logging company, which does the actual harvesting elsewhere.

K4.1 Find out if there are any forest product users in the community, who go elsewhere to collect or harvest wood or non-wood forest products. If no such users exist, skip rest of this section and go to section KII 5.

K4.2 Find out which user groups there are in the area, which go elsewhere to collect forest products. Options are community members, small-scale commercial users (located within the community) and large-scale commercial users (located within the community). If other, specify.

K4.3 Find out which forest products are collected by each of these user groups. The question refers to those products that are collected elsewhere. Use code A, multiple options possible.

KII 5 AREA PARTICULARS

K5.1 Settlement history. Find out what major events /crises / processes have affected the area. Circle the most relevant option(s) and record any other relevant information (e.g. year of the conflict/natural disaster).

Code	Option	Definition
1.	Wars	Armed conflicts that obligate people to look for safer places to live
2.	Insecurity, ethnic conflict	When people move from their original places looking for safety, major problems between ethnic groups that force people to look for other places to live
3.	Change of ownership/ land tenure	When a new owner forces the people to move from his/her property
4.	Expansion of agriculture	Land converted to agriculture fields or pastures from other land use
5.	Urban development	Land changed from agricultural production, open rangeland, forest, or recreational uses to residential, commercial, or industrial uses
6.	Infrastructure, electric power	Infrastructure, e.g. roads, water or water channel, electric line, recently installed in the settlement
7.	Economic crisis	Drastic reduction in income generation, enterprises, changes in consumption patterns
8.	Drought	Severe drought
9.	Flood	Severe flood
10.	Other natural disaster	Other severe natural disaster
11.	Pests	Severe attack by pests, e.g. destroying remarkable part of crops
12.	Human diseases	Causing drastic change in labour force and dependency ratio
13.	Rural-to-urban migration	Migration of people from rural areas to urban areas
14.	Urban-to-rural migration	Migration of people from urban areas to rural areas
15.	Rural-to-rural	Migration of people from a rural area to another

	migration	
16.	Urban-to-urban migration	Migration of people from a urban area to another
17.	Immigration	There has been an influx of people from other countries moving to the area
18.	Emigration	There has been an exodus of people from the area to other Countries
19.	Squatters	Land that is illegally owned by the owners but have been living there for many years
20.	Others	To be specified

K5.2: Population dynamics. Find out if there are now more people in the area than 5 years ago, if there are less people, or if there has been no change.

Code	Option	Definition
1.	Decreasing	The population living in the site decreased during the last 5 years
2.	Stable	The number of people living in the site remained stable during the last 5 years
3.	Increasing	The population living in the site increased during the last 5 years
4.	Not known	Key informant is not able to estimate the trend

KII 6 TIMBER EXTRACTION AND SILVICULTURAL PRACTICES

This section is asked only if there is forest / wooded land near the community ('yes' in K2.1).

K6.1 Find out what kind of timber extraction is practiced in the area. If there has been no timber extraction during the past 12 months, record 1 ('no felling'). Multiple choices possible. Explanations are provided adjacent to the codes.

K6.2 Find out what kind of silvicultural practices are practiced in the area. If there has been no silviculture in the past 12 months, record 1 ('no silvicultural practice').

Code	Option	Definition
1.	No silvicultural practice	No silviculture practiced

2.	Pruning	To cut away some of the branches to improve the tree shape, bole and wood quality
3.	Thinning	Reduction of trees to allow for the development of desired future trees
4.	Coppicing	Tree stems are repeatedly cut down at or near at the ground to allow many new shoots to emerge from the stump
5.	Pollarding	The growth of new lateral branches is encouraged by cutting tree stem above the ground (usually 2 or 3 meters) or main branches. Pollarding is maintained through regular pruning
6.	Enrichment planting/seeding – Indigenous sp	Supplementary planting or seeding of indigenous species for increasing the percentage of desirable species
7.	Enrichment planting/seeding – Exotic sp	Supplementary planting or seeding of exotic species for increasing the percentage of desirable species
8.	Cleaning /Weeding	Intervention aimed at freeing trees from disturbing vegetation layer (e.g. lianas)
9.	Sanitary cutting	Removal of dead, damaged or unhealthy trees, with the aim of stopping or preventing the spreading of insects and diseases
10.	Prescribed burning	Controlled application of fire to vegetation in either their natural or modified state, under specified environmental conditions which allow the fire to be confined to a predetermined area and at the same time to produce the intensity of heat and rate of spread required to attain planned resource management objectives
11.	Fire break	Creation and maintenance of a discontinuity in the forest stand in order to stop or reduce fire intensity and effectively control it at specific points
12.	Other	To be specified
L		

5. DESCRIPTION OF THE FOCUS GROUP DISCUSSION QUESTIONS

1. AREA IDENTIFICATION AND GROUP PARTICULARS

Instructions for the area identification particulars are provided under the HH questionnaire (apart from the land use/vegetation cover).

Land use/vegetation type (LUV) refers to the dominant land use purpose for humans and vegetative cover in and in close proximity to the settlement / place of focus group discussion. If there is more than one land use/vegetation type, mark all that apply. More detailed description to be found in appendix VIII.

Code	Description	Major class	
	$1 \ge 0.5$ ha, tree cc $\ge 10\%$, tree height \ge ly under agricultural or urban land use.	5m at maturity. Excludes land that is	
01	Parinari forest and Copperbelt chipya	Dry evergreen forest	
02	Marquesia forest		
03	Lake basin chipya		
04	Chryptosepalum forest		
05	Kalahari sand forest		
06	Baikiaea forest and deciduous thicket	Dry deciduous forest	
07	<i>Itigi</i> forest		
08	Montane forest	Moist evergreen forest	
09	Swamp forest		
10	Riparian forest		
11	Miombo woodland on plateau	Forest woodlands	
12	Miombo woodland on hills		
13	Kalahari woodland on sands		
14	Mopane woodland on clay		
15	Munga woodland on heavy soils		
16	Broadleaved forest plantation (Eucalyptus)	Forest plantations	
17	Coniferous forest plantation (Pine)		

Other Wooded Land area ≥ 0.5 ha, tree cc=5-10%, tree height $\geq 5m$ at maturity, shrub/bush cc $\geq 10\%$. Excludes land that is predominantly under agricultural or urban land use.			
21	Termitary vegetation and bush groups	Wooded grasslands	
22	Shrubs / Thickets		
Other Land	and not classified as forest or other wooded	land. no area or canopy cover limitation.	
31	Dambos and Flood Plains	Grassland	
32	Marshland and Swamps		
33	Barren land		
34	Sandy dune	Bare land	
35	Bare Rock / Outcrop		
36	Annual Crop	Cultivated and managed land	
37	Perennial Crop (includes stands of fruit trees)		
38	Pasture Land		
39	Fallow		
40	Urban	Built-up areas	
41	Rural		
Water area occupied by major rivers, lakes, ponds and reservoirs			
50	Inland Water		
90	Outside land area (e.g. outside country)		

Group particulars

1.19: Record the number of participants in the focus group. There should be separate focus groups for men and women.

1.20: Record which user group(s) the participants represent. Multiple options possible. Description of options is provided under key informant interview, K3.3. Record also any additional user group characteristics, for example if there are producers/harvesters of a particular product (e.g. charcoal producers). Mark N/A if none of the participants harvest / collect forest products. In such a case, ask only sections 1, 2 and 6. Skip sections 3-5.

1.21: Record number of participants for each age group (under 16, 16 to 35, above 35 years).

1.22: Find out the main livelihood activities of the participants. Mark all that are represented in the group.

1.23: Mark if the group members are 1. residents or 2. forest users coming from outside the community. Multiple options possible.

1.24: Write down any other relevant group characteristics that should inform the analysis.

COMMUNITY RESOURCE MAP

Start the actual group discussions by providing the group a paper and pens. Ask them to draw a resource map that would present the community (or communities, depending from how large area the participants represent) and its resources (agricultural, forest, other resources) in the way that the group members perceive it. The boundary of the map will depend on how large an area the participants represent and how large an area they use for their collection of forest products. Emphasize that there are no right or wrong kind of maps, and it does not need to follow any exact scales or distances. You can pose helping questions especially if the group is finding it difficult to draw the map. Helping questions can include for example:

- Where is your community in the map? Is it concentrated or are houses scattered over a wide area?
- What are the main resources you use? Where do you get those from?
- Where are there agricultural fields? Where is forest? Is there any river or other water source nearby?
- Where do you get construction materials for your houses?
- Where do you get food?
- Where do you get energy needed for cooking?
- What else is there in your community?
- Etc.

The map helps you to understand the resource base for the community/area and how and where they use forest resources. It also shows you what is significant for the community members and other user groups. Use the map when going through the group discussion. The map may already provide you with some of the answers you are after, or it can facilitate to pose more location specific questions that will bring answers to the questions in the focus group tool.

It may be a good idea to offer the focus group the drawn map after end discussion. It could be a motivating factor for participating. Remember to take a photo of the map to be recorded together with the data.

2. FOREST ACCESS

2.1 Access to forest or other wooded area

Find out if the focus group members have access to forest or other wooded area for harvesting or collecting forest products. If at least some people in the group have regular access to forest (whether nearby or further away), continue with the remaining questions. If you are located near forest and the group says

they have no access, find out what restricts them from using the forest and note down the answer in the empty space in the questionnaire form.

2.2 Distance to forest / wooded area

Find out the distance to the forest edge / distance to the edge of the wooded area from where wood and non-wood forest products are collected. Record distance in time (e.g. 20 minutes) and in kilometres. Time refers to the time it typically takes from the community members to go to that area by foot (time to walk one-way, from home to the edge of the forest). In case there is no forest nearby, but some user groups go further to collect forest products by other means of transport, record that time and mark down the typical means of transport (Code E). If the group members do not know where the nearest forest is (as it is far away and not used by the community), mark X to 'Forest/wooded area too far and thus not used by the user group/community'. In that case, go to Q. 2.6.

2.3 <u>Permits for forest product collection</u>

Find out if the group members need a permit to collect forest products. (Question to be asked only if group members collect / harvest forest products). Do not correct the group even if you have other knowledge on the issue, but record the answers as given. (E.g. if you know that they would need permits, and they say they don't need, you record '3 –no'). If group members indicate they need permit for some specific products or purposes (option 2), specify these products/purposes.

2.4 Transparency of permit granting process

If the group had indicated that they need permit (whether for all or some products/purposes), ask if they feel the permit granting process is open and transparent. This question has the potential to inform UN REDD+ safeguards. Mark down any relevant comments or quotes. Note: respondents will in many cases not understand the meaning of "open" and "transparent". As in all questions it is the responsibility of the enumerator to make the question understandable to the respondent. In this case, the enumerator could for example refer to whether corruption is a normal part of the permit granting process or if somebody gets prioritized over others when granted permits.

2.5 <u>Trend in variety of forest products</u>

Code Option Definition 1. Now There are now fewer forest products than 10 years ago. E.g. there used to fewer products be fuel wood, fruit, mushrooms, and animals (for bush meat), but nowadays there are only fuel wood and fruit. 2. No change There is same number of different forest products as 10 years ago. 3. Now There are now more different forest products than 10 years ago. E.g. 10 more products years ago there were fuel wood, herbal medicines and fruit, but nowadays there are also mushrooms. 4. Don't know Group members do not know what was the situation 10 years ago

Find out if there has been a change in the number of different forest products during the last 10 years.

2.6 Changes in access to forest land

Find out if the user group's access to forest/wooded land has improved or deteriorated during the last 5 years. Ask this also from those who currently do not have access, to find out if they previously had. If differing opinions, mark all that apply, and try to record for whom (which user group) the access has changed.

Code	Option	Definition
1.	Improved	The group members feel they can now better access the forest/wooded land for collecting products. Better access can be due to increased forest area or improved rights or for other reason.
2.	Deteriorated	The group members feel they have now less access the forest/wooded land for collecting products than 5 years ago. Deteriorated access can be due to decreased forest area, concessions, restrictions in use, or for other reason.
3.	No change	The user group's access to forested land has not changed.

2.7 <u>Reasons for change in access</u>

If the group said their access to forest land had improved or deteriorated (options 1 or 2 above), find out the reasons for change. Options 1-11 refer to reasons for improved access and options 12-26 refer to reasons for reduced access. If the group refers to broader reasons (e.g. reduced forest area or increased restrictions), probe further to know the specific reason (e.g. 13- reduced forest area due to charcoal production or 21 – state or local authorities restricting access). Multiple options possible.

2.8 Opening up of new crop land

Find out where group members and community in general usually open up new crop land (e.g. clear or burn forest / shrubs in order to have land for crop production). Options refer to different land tenures. If the community does not usually open up new crop land (e.g. in urban communities), mark 7.

2.9 <u>Permission for opening up new land</u>

If community is sometimes opening up new crop land (options 1-6 in Q. 2.8), find out if they usually apply for a permission for opening up the land. If they apply for a permit, record the answer based on from where they apply for the permit (customary chief, state authorities or other). If they open up new land without asking permits, record 4.

3. COLLECTION OF WOOD AND NON-WOOD FOREST PRODUCTS

3.1 Forest product collection

Find out if the focus group members collect or harvest any wood or non-wood forest products. If they say no and you are near a forest or wooded area, probe more by asking specific products – perhaps group members do not count some products as 'forest products'.

3.2 Which products are collected

Find out which forest products are collected or harvested by the group members. This question refers specifically to the group. For example, if a men's focus group mentions that in addition, women also collect fuel wood, you don't record that, if it is not collected by men. That will be recorded in the women's focus group.

Once you have figured out the different products, select from forest product picture cards those that are being collected. Set them on a table or to the ground. Give each participant a bean/stone/other small item and ask them to bring it to the product (card) that is the most important for them. "Most omportant" is here defined as the most important for the wellbeing of the village from womens'/mens' point of view, whether it be through direct use in the home, or through sale for cash, or both.

Based on the amount of beans (other items), mark down the ranking. Mark to the first column (A) the product that got most beans, to the second column (B) the product that got second most beans etc. If two or more products get similar number of beans (or no beans at all), repeat the exercise for these products until you have ranked all products collected.

Product collected (code)	Beans distributed:	Product code to be marked in column
Mushrooms (7)	2	В
Plant medicines (10)	0	(C or D, need to probe more if medicines or fruit are more important)
Fuel wood (2)	7	А
Fruit (6)	0	(C or D, need to probe more if medicines or fruit are more important)

Example: (A user group of 9 people, each given a bean)

For the rest of this section, questions are asked separately for each product, and answer marked to the relevant column.

3.3 Main species

Find out which is the most important species harvested for a product, and mark that to the first row. Then ask if other species are also harvested / collected. If yes, mark the second most important species to the second row, third most important species to third row etc. Once completed with one product (column A), ask the same question for the next collected product (column B). Continue until found the used species for all collected wood and non-wood forest products. For the caterpillar and honey, ask for the species of the tree where the product is found.

Species can be recorded by their local name. In that case, mark a letter in parenthesis after the species name, to indicate in which language the species is recorded in. B= Bemba, N= Nyanja, K= Kaonde, L= Lozi, T= Tonga, Lu= Lunda, Lve=Luvale. Other languages and dialects can be indicated in writing.

3.4 <u>Changes in availability of the product</u>

For each product (column), ask if there are now more, less or same <u>amount</u> of the product available compared to 5 years ago. (see Q.3.11 for an explanation of the distinction between "availability" and "supply" – important!)

3.5 Reasons for increased availability

Find out what are the reasons for increased availability of a particular product (if indicated increase in Q 3.4). If group have indicated several reasons, ask what was the most important one, second, etc. and rank the reasons starting from the most important. Write also down any relevant comments. If the availability of a product has not increased (options 2-4 in Q. 3.4), leave the answer box blank for that product (column).

3.6 Reasons for decreased availability

Find out what are the reasons for decreased availability of a particular product (if indicated decrease in Q. 3.4). If the group indicates a general reason (e.g. reduced forest area), probe more to find out the exact reason (e.g. reduced forest area due to small-scale clearing for agriculture). If group have indicated several reasons, ask what was the most important one, second, etc. and rank the reasons starting from the most important. Write also down any relevant comments. If the availability of a product has not decreased (other than option 3 in Q. 3.4), leave the answer box blank for that product (column).

3.7 <u>Response to decreased availability</u>

Find out what people did (if anything) due to decreased availability of the product. Ask this question only for those products, the availability of which has decreased (option 3 in Q. 3.4). Multiple options possible.

3.8 <u>Conflicts</u>

Find out if group members have experienced any conflicts in relation to forest product harvesting during the last 5 years. If yes, probe further in relation to which product. Mark 1 (yes) to those products (columns) for which there have been conflicts, and 2 (no) for those products, for which there has been no conflicts. Any types of conflicts can be recorded.

3.9 <u>Type of conflict</u>

If conflicts were experienced for a product, ask what type of conflict it has been (with whom). Options include conflicts with Forestry Department, with concessioners, with community members, with neighbouring communities, with outsiders and other (to be specified).

3.10 Demand trend

Find out if there in general is now more demand for the product compared to 5 years ago, or less demand, or if there has been no change in demand. Ask the question for each product (column) that the group is collecting / harvesting. The question should be asked so that it is clear that it is not only the demand

change from focus group participants that we want to know. It is the general demand trend at the wider market were the product is sold/bartered as well at community level where the product is sold/bartered or used for household consumption.

3.11 Supply trend

Find out if there have been changes in last 5 years in the amount of products harvested. Note that this is not the same as the availability of a product. E.g. there might be less fruit available in total, but the amount collected has increased (=increased supply trend, and increased proportion of the available products are being harvested). This is also not the same as demand trend. E.g. there might be now more demand for timber, but people do less logging (=decreased supply trend) due to restrictions.

The question refers to the general trend in quantities harvested, not only to those harvested by the focus group discussion participants.

In cases where there is no nearby forest but group members harvest forest products elsewhere, refer to harvest trends in those collection areas.

Code	Option	Definition
1.	Increased	Larger quantities of the product are harvested / collected in the area than 5 years ago.
2.	No change	Same quantities harvested than 5 years ago.
3.	Decline	Smaller quantities of the product are harvested / collected in the area than 5 years ago.
4.	Do not know	Group members not able to estimate trend in total quantities harvested.

Ask the question for each product (column) that the group is collecting / harvesting.

3.12 Trend in market price

Find out if the per unit market price is higher, the same or lower for each collected product compared to 5 years ago. Note that people might now this even if they are not themselves selling the product.

3.13 Source of knowledge on forest products

Find out where people have received information or learned about collecting / harvesting of various forest products. Potential sources of knowledge include agricultural extension, forest extension, other government agencies, NGOs, church, school, parents, other family members, community members, self-taught, commercial / business entities and other (to be specified). Rank first (on top) the most important source of knowledge, then the next important source etc. Rank maximum 3 most important sources of knowledge for each product.

3.14 Ways to increase benefits from forest products

Ask what should be needed so that the user group would be able to have increased benefits (whether for income, use, reduced collection time etc.) of each collected forest product. In this question, it is especially important to <u>write down the answers given (in words) in addition to marking the pre-determined options</u>. Once you have received the answers, ask the group to determine which would be most important, which second most important (etc.) way to improve the benefits. Do the ranking by providing each member of the group a bean (or post-it paper or other small item) and by asking to put it to the most benefit-increasing point.

For example, if group said they would benefit from having clearer user rights, as well as better tools for harvesting, allocate an area (a circle on ground or paper) for both of these ways, and ask people to bring their bean (item) to the circle (way) that seems more important. Remember to rank also option 9 (other), if provided.

3.15 Main user groups

For each product (column), mark down (to the sub columns) the main user groups as provided in the key informant interview. Check with the group and record any main user groups that the key informant might have missed.

This is done as to ease the recording of the subsequent questions, which will be asked per product+user group combination.

3.16 Change in harvest per user group

Questions to be asked for each user group within each collected product. E.g. "Have the [subsistence oriented users from outside the community] increased or decreased harvest of [fuel wood] during the last 5 years?" If the user group is not present, and they don't know the harvest trend for the absent user group, mark 4 ('do not know').

3.17 <u>Gender distribution in harvesting</u>

Questions to be asked for each user group within each collected product. E.g. "What is the gender distribution in collecting [plant medicines] among [community members]?" If the user group is not present, and they don't know the gender distribution for the absent user group, mark 6 ('do not know'). Record answer depending on how large part of the harvesters are male and female.

3.18 Child participation

Questions to be asked for each user group within each collected product. E.g. "Are children participating in the harvesting of [mushrooms] among [community members]?" If the user group is not present, and they don't know child participation for the absent user group, mark 6 ('do not know'). Record answer depending on how large part of the harvesters are children.

3.19 Processing of the collected product

Questions to be asked for each user group within each collected product. E.g. "Are [small-scale commercial users from within the community] further processing [fruit] before selling?" / "Are [community members] further processing [mushrooms] before use?" If the user group is not present, and participants do not know if they process the product further, mark 4 ('do not know').

3.20 Gender distribution in processing

Ask this question only when user group is processing the product ('yes' or 'sometimes' in Q. 3.19). E.g. "Who is doing the processing of [fruit] among [community members]?" If the user group is not present, and participants do not know the gender distribution for the absent user group, mark 4 ('do not know'). Record answer depending on how large part of the people doing the processing are male and female. Processing refers to any deliberate modification of the raw material / product for the purpose of making it better suitable for use or selling. Includes drying, preserving, cooking, carving, burning, separating parts etc.

3.21 Decision-making

Questions to be asked for each user group within each collected product. Find out who – men or women - are major decision-makers on the harvest and use of this product. If both men and women make decisions, find out if it is mostly men, mostly women or more or less evenly both. If evenly both, mark 3 ('jointly').

3.22 Locations of selling

In cases where there are commercial harvesters of the product, ask where this user group sells the product. Question to be asked per product for all the user groups selling the product. Options 1-3 refer to places within the same community, 4-5 to places outside the community but within the same district, 6 to places outside own district but within the same province, and 7 to places outside their own district but in Zambia. Option 8 refers to cross-border trade and export of the product. Note that selling refers to the first level selling: e.g. if the harvesters first sell the product to a company that then further sells the product abroad, record location of selling to the company. Multiple options possible.

3.23 Forest services / services provided by trees

This question is only to be asked in all communities.

Find out from the participants, which other benefits they think the forest / wooded area or trees provide, apart from the products collected. If the group cannot think of any other benefits, record 1 ('none identified'). If they can think of one benefit, record that to column 1. If they can think of more than one benefit, provide a bean (other item) to each participant. Ask participants to rank the identified benefits by bringing their bean to the most important one. Count the beans and mark the most important benefit to first column, second to the second column etc. It is enough to rank the three most important benefits.

3.24 Benefits from forest services

This question is only to be asked in all communities.

Find out if the community or individuals living in the community have received any money or any other benefits, including development projects, related to forest services during the last 12 months. Record after each potential service either 1 ('yes, directly to households'), 2 ('no'), 3 ('yes, directly to community') or 4 ('yes, both to household and community').

If benefits have been received, mark down any other relevant comments, especially on the equality of distribution of those benefits.

Option	Definition	
Tourism	Financial or other benefits from tourism that uses the forest	
Carbon sequestration	Financial or other benefits against carbon sequestration (e.g. UN-REDD)	
Water catchment	Financial or other benefits from conserving water catchment area	
Biodiversity conservation	Financial or other benefits against biodiversity conservation	
Compensation from timber company	Financial or other compensation to local community / people by a company harvesting timber	
Compensation from companyFinancial or other compensation to local community / people by a min using the forest / wooded area		
Tree planting / Financial or other benefits provided for the community / individuals for plantin afforestation		
Other	To be specified	

4. FOREST MANAGEMENT

This section is to be asked only in locations that are in or near forest or wooded land ('yes' in K 2.1).

4.1 Existence of community forest management agreements

Find out if the community has entered any forest management agreement during the last 5 years. Also renewals of older agreements are counted. Options include 'yes, with government', 'yes, with NGO', 'yes, with other' (to be specified), 'no' and 'not aware'. Count any agreements which stipulate forest management activities.

4.2 <u>Type of agreement</u>

If the community had recently entered or renewed an agreement, find out the type of the agreement.

4.3 Feelings about the agreement

If the community had recently entered or renewed an agreement, find out if the participants feel that the agreement has had positive, negative or no neutral/no effects to the benefits that they get from the forest. Select '5' if the group is really divided in opinions (positive/negative).

4.4 Forestry-related external support

Find out if the community has received free inputs, monetary support, technical assistance or any other forestry-related external support during the last 12 months. Support can be received from government, donors, civil society organizations or from other sources.

4.5 <u>Membership in forest management groups</u>

Find out if any community members are part of any group that organizes forest management activities. Activities can include for example fire fighting, patrolling or tree planting.

4.6 Gender distribution in forest management group

If any community members were involved in a group doing forest management activities, find out who typically participates in the group activities. Record based on the proportion of women / men participating.

4.7 Forest management activities

If any community members were involved in a group doing forest management activities, find out what kind of activities is the group doing.

4.8 Forest / woodland management plan

Find out if there is any forest or woodland management plan that would (partially or in whole) cover the forest or wooded area adjacent to the community. If there is a plan, find out if it is formal management plan or within traditional structures or other (to be specified).

5. RULES / LEGISLATION AWARENESS AND COMPLIANCE

This section is to be asked only in locations that are in or near forest or wooded land ('yes' in K 2.1).

5.1 Existence of customary rules for forest use

Find out if there are any customary rules regulating forest use by the community members. If yes, record what kind of rules exist.

5.2 <u>Compliance with customary forest rules</u>

If there are any customary rules regulating forest use by the community members, find out if community members follow the rules.

5.3 Existence of conserved forest areas

Find out if there is any forest or wooded land area that is specifically conserved or protected by the community members. If yes, record answer based on the conservation purpose.

5.4 Existence of government rules regulating forest use

Find out if there are any government rules regulating forest use by the community members. If yes, record what kind of rules are known to exist. Remember to record what has been provided by the group – do not correct / add if you know of other rules which have not been mentioned.

5.5 <u>Compliance with government forest rules</u>

If there are any government rules regulating forest use by the community members (that they know of), find out if community members follow the rules.

6. DEMAND FOR FOREST PRODUCTS (BUYING & ACQUIRING THROUGH BARTERING)

This section is to be asked in all locations.

6.1 <u>Buying / bartering of forest products</u>

Find out if the group members buy or acquire through bartering any wood or non-wood forest products. Probe for different products (as in code A) in order to ensure group members have considered different forest products. Record 'yes' if any group member has been acquiring any forest products during the last 12 months, and continue to ask the rest of this section.

If none of the group had bought any forest products, thank the group and end the interview.

6.2 <u>Products bought / acquired through bartering</u>

Find out which forest products have been bought or acquired through bartering during the last 12 months by the group members. Record one product to one column. (Code A).

Subsequent questions are to be asked per product (column).

6.3 <u>Ranking of the most important products</u>

Refer to the products that the group members are buying / acquiring through bartering. Give each group member a bean and ask them to bring it to the most important product. Rank in this way the products in order of importance. Use forest product picture cards and stones (one per participant) to rank the products. Mark '1' to the column of the most important product, '2' to the column of the second most important etc. It is enough to rank five most important products. Importance refers to what group members think is most needed product for their use.

6.4 Location of buying the product

With reference to the products bought/acquired by the group members, find out where each product is usually bought/acquired. Use code H to mark location for each product (column). Multiple choice possible if different group members buy from different locations. This question also applies for products acquired through bartering.

6.5 Main sellers of the product

With reference to the products bought by the group members, find out who are the main sellers (barterers) of that particular product. Use code L. Multiple options possible.

6.6 <u>Where sellers come from</u>

With reference to the products bought by the group members, find out where sellers (barterers) of each product is usually coming from. Use province codes (code P). If seller comes from abroad, record 55. If not known, record 66. Multiple options possible.

6. DESCRIPTION OF THE HOUSEHOLD QUESTIONNAIRE

SECTION 1: AREA IDENTIFICATION PARTICULARS

1.1 <u>Stratum</u>

Mark down to which of the three sampling strata the SEA belongs to.

1.2 <u>Cluster</u>

Mark down to which cluster the SEA belongs to. Codes are given in SEA maps.

1.3 Province Name

Write down the name and the code of the province in which the household in your work area (SEA) falls. These codes are given in SEA maps.

1.4 District Name

Write down the name and the code of the district in which the household in your work area (SEA) falls. These codes are given in SEA maps.

1.5 <u>Constituency Name</u>

Write down the name and the code of the constituency in which the household in your work area (SEA) falls. See SEA maps for the constituency codes.

1.6 Ward Name

Write down the name of the ward in which the household in your work area (SEA) falls. Then enter the appropriate code for the ward. Codes for wards are given in the SEA maps.

1.7 <u>Region</u>

Indicate whether area in which FLES households fall is considered as "Rural = 1" or "Urban = 2". Urban population refers to people living in urban areas as defined by CSO.

1.8 <u>Census Supervisory Area (CSA)</u>

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

1.9 <u>Standard Enumeration Area (SEA)</u>

This is the area allocated to you for enumeration. Your supervisor will give you your SEA number. Transfer the information to the questionnaire. Ensure that the CSA and SEA number you are given correspond to the ones on your maps (work area) and the questionnaire.

1.10 <u>Chief/Chieftainess' Area</u>

Find out the chief or chieftainess that is associated with the district in which the household in your work area (SEA) falls.

1.11 Village or Locality Name

Write down the name of the village or locality where the household resides.

1.12 Household category

Mark down the category in which the household has been listed into.

1.13 Household Serial Number (HHN)

Transfer the household number of the selected household from the listing form and enter in the box provided.

1.14 Name of the Household Head

Record here the name of the head of household from the listing book.

1.15 Name of the Respondent (if not the HH head)

Record here the name of the respondent if it is not the head of household.

1.16 Contact Information of the household

Record the contact information, preferably telephone number, of the head of household or related person.

1.17 GPS Coordinates (latitude)

Using GPS device, take and record easting coordinates of the household location, in decimal degrees, projection system WGS84. Format: dd.dddd.

1.18 GPS Coordinates (longitude)

Using GPS device, take and record southing coordinates of the household location, in decimal degrees, projection system WGS84. Format: dd.dddd.

1.19 Supervisor's Name

Record the name of the supervisor. Supervisor should sign only after checking the questionnaire.

1.20 Enumerator's Name

Record the name(s) of the enumerator(s).

1.21 Date of interview

Record the date of the interview. Format: date/month/year (e.g. 30/11/2014). In case the interview needs to be continued the following day record both dates.

1.22 <u>Time start</u>

Record the time when the interview started (e.g. 14:35).

1.23 <u>Time end</u>

After finishing the household survey and the individual surveys for that household, record the time when these were finished. (e.g. 15:55). (As a reminder, this question is also provided at the end.)

1.24 <u>Response status</u>

Mark down if it was possible to conduct the interview or not. If household members are not at home, you should make call-backs. If despite these the household members are not available, mark this down.

SECTION 2: HOUSEHOLD COMPOSITION

2.1 <u>Name</u>

Record the names of the household members, starting with the head of the household. For definition of a household member, refer to definitions in chapter 1.3. In case there are more than 12 members, continue to the next page. Ensure that only usual HH members are recorded (e.g. exclude grown-up children that already have their own households elsewhere).

2.2 <u>Relationship to the head of the household</u>

Mark the relationship to the head of the household for each household member. 'Non-relative' means no relationship with the head either by blood, marriage, adoption etc. E.g. a maid that lives with the household but is not a relative.

2.3 Year born

For each household member, find out in which year they were born. Format: YYYY (e.g. 1985). In case the HH member does not remember, try to estimate e.g. by asking how old she/he was when the first child was born (or during any other event for which the year is known).

2.4 <u>Sex</u>

Record if the household member is male or female.

2.5 Marital status

Record the marital status for all household members that are 12 years or above (approximately: born in 2002 or before).

2.6 <u>Literacy</u>

Ask if the head of household, spouse and respondent (if different) can read <u>and</u> write (in any language). Include the literary of those HH members that answer the individual sections.

2.7 Education level

Ask what is the highest education level obtained (completed) by the head of household, spouse and respondent(s). Include the education levels of those HH members that answer the individual sections.

2.8 <u>Respondent</u>

Mark '1' after the HH member who is the main respondent. Mark '2' after the HH member who is answering section 13 (a man). Mark '3' after the HH member who is answering section 14 (a woman). Same person can be the main respondent to the HH questionnaire and respondent to an individual section. In that case, mark both numbers (e.g. 1; 2).

2.9 <u>Ethnic group</u>

Find out which ethnic group the HH members belong to. Tick the applicable box or boxes.

SECTION 3: HOUSING CHARACTERISTCS AND HOUSEHOLD ASSETS

Note that for most of the questions in this section, it is possible to observe. This reduces the amount of questions asked and therefore fatigue by the respondent.

3.1 <u>Dwelling</u>

Observe and record the type of dwelling the HH lives in. In case of several residential buildings, refer to the type of the main building.

3.2 **Building materials**

Observe (/ask) and record the materials of the roof, walls and floors of the (main) residential building.

3.3 <u>Item ownership</u>

Ask for the quantities of each item owned. Read each question aloud, e.g. 'How many cattle does your household own?' Record how many cattle, goats, sheep etc. the household owns. Do not count permanently broken items.

SECTION 4: LIVELIHOODS

The purpose of this section is to retrieve some basic information about household activities that are relevant to their livelihood, i.e. consumption, income and wellbeing. The section is meant as a gentle entry

for the more in-depth interview questions concerning the household's reliance and use of natural resources, including trees and forests. In many instances the respondents' answers in section 4 will prove useful for the interviewee during the remaining of the questionnaire, i.e. (part of) answers to subsequent questions may already be provided by respondent during section 4.

Note that the enumerator should cross-check answers in this section with information obtained during key informant interviews and focus group discussions as well as with their own observations from the surroundings.

4.1 What are the REGULAR household activities contributing to household livelihoods

The enumerator should seek information about all activities undertaken by members of household that are contributing to income generation <u>or</u> household's own consumption/use of food and non-food items. Note that only regular activities undertaken during the last 12 months should be recorded.

E.g. If household used wooden poles when they constructed their house (one-time activity), it should not be recorded. Only if construction with poles is a regular activity, it should be recorded.

It is recommendable to start out by asking the respondent openly. Prompting the respondent with options should be employed at the point where the respondent seems to have exhausted his/her own memory (e.g. by taking point of departure in the options list and by referring to what can be directly observed and logically assumed). Response is marked by ticking the box after the each regularly undertaken activity.

Option	Definition
1-6	Involvement of HH members in various agricultural activities (for own consumption or sale/bartering). Excludes involvement in agricultural activities for wage/payment, as this is recorded under option 22 'employment in agricultural sector'.
7	Involvement in hunting activities, whether for own consumption or sale.
8	Involvement of HH members in processing of agricultural products (whether self-produced or not). Includes processing for own consumption and for sale/bartering. If HH member is processing products as wage labour / other similar payment, record this under option 22 'employment in agricultural sector'.
9-13	Involvement of HH members in activities related to the collection of forest products (for own consumption, sale or bartering). Exclude collection of forest products as wage labour (that is recorded under option 21 'employment in forestry sector').
14-16	Involvement of HH members in processing of forest products (whether self-collected or not; and for own consumption, sale or bartering). Exclude processing of forest products as wage labour (that is recorded under option 21 'employment in forestry sector').
17-19	Involvement of HH members in activities related to tree nurseries, handicraft production and brick moulding (for own consumption, sale or bartering). Wage employment in these sectors to be recorded in option 23 'Other employment'.
20	HH's or HH member's business activities, e.g. trade of other than above mentioned goods or trade

	on agricultural products/forest products produced/collected by someone else.	
	<i>Not</i> to be recorded here:	
	• Selling their own agricultural production, as that is recorded in options 1-5	
	 Selling forest products that they have themselves collected, as that is recorded in or 9-13 	
	To be recorded here:	
	 Trade in agricultural or forest products acquired from someone else (not self- produced/collected) (e.g. buys fish from the fishermen/-women and sells it further) 	
	Trade in any other goods or services	
21	Employment in forestry sector covers collecting, harvesting and processing forest products and other similar activities which are done for wage or other similar payment.	
22	Employment in agricultural sector covers work in agriculture (crops, livestock, vegetables, fisheries etc.) for payment.	
23	Other salaried / wage employment: any other than agricultural / forestry sector activities done outside the HH for remuneration, whether at the public or private sector. (E.g. nurse, government official, shop assistant, teacher, mechanic). Do not count employment in tourism or mining sectors as those are captured in options 24 and 26 respectively.	
24	Activities related to tourism and recreation. Includes both self-employment, sale of services and facilities and wage labour.	
25	Activities related to provision of environmental services, e.g. carbon projects, forest and water conservation, etc. Includes e.g. receipt of payments, participation in schemes (e.g planting of trees) and as wage labour in projects.	
26	Involvement of HH members in mining activities (incl. as wage labour)	
27	Any other livelihood activity that cannot be classified in the above options. Specify.	

4.2 Who in the household are involved in these activities?

The question should be asked in conjunction with Q. 4.1 for each of the options that are found relevant for the interviewed household. Options are men, women and children. Question refers to members of household. Mark all that are involved.

SECTION 5: ACCESS TO AGRICULTURAL AND FOREST LAND AND USER RIGHTS

This section addresses the quantities of land held by household, the use of the land and how rights and decision making about land use are distributed among household members.

Note that the enumerator should cross-check answers in this section with information obtained during key informant interviews and focus group discussions as well as with their own observations from the surroundings.

5.1. How much land does your HH have in total?

Inquire for the total size of land area (in lima) currently used and/or owned by household members for various purposes, e.g. agricultural cultivation, fallow, grazing, buildings, gardening, tree planting, forest, nursery, fish dams etc.. The total land that the household *has*, <u>excludes land rented out</u> by household but <u>includes land rented by household</u>. Land rented out is recorded in Q. 5.14.1 and Q. 5.14.2. Land rented by household is specifically addressed in Q. 5.13.1 and Q. 5.13.2 The total land that the household *has*, does not have to be owned by household. Mark N/A if the household does not have any land (in that case, go to Q. 5.14.1.).

Remember to cross-check areal figures by comparing total land (Q 5.1) with the sum of areas indicated in Q. 5.2 (fallow), Q. 5.3 (forest and nurseries), Q. 5.4 (agricultural cultivation) and Q. 5.6 (other land uses). The two figures should be approximately the same.

5.2 How much of that land is in fallow?

Record the size (in lima) of land currently in fallow, out of the total land area that the household has (Q. 5.1). Fallow is here defined as farmland not currently in rotation for cultivation purposes but left for a period, e.g. for the purpose of restoring soil fertility or due to labour shortage. Mark zero if no areas are in fallow.

5.3 How much land is used specifically for growing trees?

Record the size (in lima) of land currently used specifically for growing trees, out of the total land area that the household has (Q. 5.1). It <u>includes</u> areas used for plantations, natural forest and nurseries and <u>exclude</u> areas used for agro-forestry, cultivating fruit trees, oil palm, nuts, and other trees with an agricultural purpose (these are recorded in Q. 5.4 and listed in code N). Further, areas currently in fallow should also be <u>excluded</u> (these are already recorded in Q. 5.2). Mark zero if no areas are used for cultivating trees.

5.4 How much land is used agricultural cultivation?

Record the size (in lima) of land currently used specifically for agricultural cultivation, out of the total land area that the household has (Q. 5.1). Areas used for agricultural cultivation <u>includes</u> areas in which the main purpose is to cultivate annual and perennial agricultural crops (those listed in Code N and recorded in Q. 5.7). Forest areas (planted or natural), nurseries, and areas in fallow and are <u>excluded</u> here. Mark zero if no areas are used for agricultural cultivation.

5.5 Whose fields are these?

Break down of the total agricultural area cultivated by household (Q. 5.4) into areas (in lima) which are controlled respectively by men, women or jointly. Options are:

- a. Men: record the size of agricultural land in which the key decision makers are men in the household.
- b. Women: record the size of agricultural land in which the key decision makers are women in the household.
- c. Jointly: record the size of agricultural land in which key decisions are made jointly.

5.6 Area of other land uses held by HH

Out of the total land area that the HH has (Q. 5.1), ask how much is used for other purposes than those addressed in Q.5.2. (fallow), Q.5.3. (forest and nurseries), and Q. 5.4. (agricultural cultivation)? Other land uses could include built-up areas, fish-dams, and pasture fields.

5.7 What are the HH's main agricultural crops?

Ask the respondent to list all the different agricultural crops cultivated by household members and code answers according to code N (appendix IV). Multiple answers are possible; each crop is to be recorded in a separate column. Mark N/A if no crops are cultivated.

5.8 <u>Area of each crop?</u>

For each agricultural crop indicated in Q. 5.7, record the area cultivated (in lima). The sum of areas used for different crops should correspond approximately to the total area used by household for agricultural cultivation (Q. 5.4). However, as several crops might be cultivated on the same piece of land (e.g. when applying agroforestry cropping systems), the former might be larger than the latter.

5.9 <u>Who mainly does the cultivation?</u>

For each agricultural crop indicated in Q. 5.7, record which household members mainly do the cultivation. Options are in code B (men / women / boys /girls / hired labour / do not know). Multiple options are possible.

5.10 Which cropping systems does the household apply?

Record all types of cropping systems that the household apply on their land. Multiple options are possible; record each option in a separate column. The options are in code O, see appendix IV.

5.11 Area used for each cropping system

For each of the cropping systems recorded in Q. 5.10, record the size of land (in lima) in which the system is currently applied. The sum of areas in which different cropping systems are applied should correspond approximately to the total area used by household for cultivation (Q. 5.4). However, as several cropping systems might be applied on the same piece of land, the former might be larger than the latter.

5.12.1 How much of your HH's cultivated land is on customary land versus state land?

Record how much (in lima) of the household's cultivated agricultural land (as recorded in Q. 5.4) is falling in customary land and how much is in state land. Note that we are only interested to know the tenure of cultivated agricultural land, not the areas with other land uses. Break down the information into the sizes of land in which: a. men; b. women or c. men & women jointly are the key decision makers (as already recorded in Q. 5.5). State land includes land leased by household from the state (e.g. through a 99 years lease contract). Information about the applicable tenure systems of the area will in many cases already be known from previously undertaken focus group discussions and/or key informant interviews. Thus, it is possible to insert this directly into the questionnaire.

5.12.2 Is the land holding officially recognized by state or customary law?

Ask respondent if the HH's land holding of agricultural cultivated land is officially recognized by state or customary law. There is the possibility of multiple options, e.g. when only part of HH's land holding is officially recognized. In the case of the latter, indicate "1" or "2" together with "3", separated with a semicolon (i.e. 1;3 or 2;3).

- 1. Yes, title deed
- 2. Yes, from the chief (letter or official verbal recognition)
- 3. No

5.12.3 <u>Who holds the right of officially recognized land?</u>

This is a follow up to previous question, and is asked only if any part or all of the HH's land is officially recognized (options 1 or 2 in Q. 5.12.2). Ask who holds the rights to the land officially recognized by state or customary chief. Options as in code G. In case the land is rented by the household, 'Other' should be marked. Remember to specify that the land is rented.

5.12.4 How much of your household's cultivated land is in protected area and in GMA?

Ask the share of land falling in protected areas (e.g. local or state forest) and in Game Management area. Do not ask the question if you know that there is no protected area or GMA nearby – in this case mark N/A.

5.13.1 Is your HH renting any of the land already mentioned as being cultivated?

Record 'yes' or 'no' on whether any of the cultivated agricultural land (Q. 5.4.) is being rented by the household. 'Renting' does not include leasing from the state, but sub-renting from private individuals, who have claimed or been granted the rights to the piece of land.

5.13.2 Size of land rented

Follow-up question to Q. 15.13.1. Record the size (in lima) of land being rented by the HH.

5.14.1 Does your HH rent out any land?

Record 'yes' or 'no' on whether the household is renting out any land.

5.14.2 Size of land rented out

Follow-up question to Q. 15.14.1. Record the size (in lima) of land being rented out by the HH. Remember that the land being rented out is additional to (i.e. not included) in the total land held by HH as recorded in Q. 5.1.

5.15 Did your HH's total land used for cultivation increase or decrease in the last 5 years?

The intension is to get information on whether the size of agricultural land cultivated by the HH has changed over the last five years.

5.16 Do the livestock graze/forage in wooded land?

If the respondent indicated in Q. 3.3 that the HH have any cattle, sheep, goats, donkeys or horses, ask whether the livestock graze in wooded land. Wooded land is here defined as any land with permanent wooded vegetation (including natural and planted forests, scrubs, wooded grassland and wetlands). If HH does not have any such animals, mark '3' (no need to ask).

5.17 In which land do the HH members collect the wood and non-wood forest products?

If respondent in Q.4.1 indicated 'yes' that the HH members are collecting forest products, ask respondent about on which type of land members are collecting the products (tick all boxes that apply). It is possible to select several of the following options:

Code	Option	Definition
1.	On my own land	'Own land' is defined as those lands that respondent consider his/her home- stay or cultivated land and to which a member of HH has customary or governmentally recognized rights: verbal permission, letter from the chief or title deed.
2.	Outside own land on customary land	This type of land includes customary land to which HH has no officially recognized rights, and where other users than the interviewed HH might also access for collection of forest products.
3.	Outside own land on state land	This type of land includes state land to which HH has no officially recognized owner/lease rights, and where other users than the interviewed HH might also access for collection of forest products. This option includes protected state land.
4.	Outside own land on land which is on lease	This applies e.g. when products are collected on private land, owned/leased by someone else than the HH.
5.	Other places	Specify if HH members are collecting forest products in other places than the above

5.18 <u>Has the distance to the area in which you are collecting forest products changed during the last 5</u> years?

Ask respondent if the physical distance to the areas in which HH members are collecting forest products have generally changed during the last 5 years.

SECTION 6: HOUSEHOLD FOREST CLEARING, PLANTING AND REGENERATION

This section seeks to capture information about how the household is influencing forest area change and the 'quality' of the forest in the local surroundings.

Note that the enumerator should cross-check answers in this section with information obtained during key informant interviews and focus group discussions as well as with their own observations from the surroundings.

6.1 Did the HH cut any trees during the past 12 months?

Ask respondent if members of the HH have cut any trees during the past 12 months and, if so, in which way. Multiple selections are possible, although not in combination with option '3' (no cutting).

Code	Option	Definition
1.	Yes, cleared area	Removal of all (or almost all) trees on a surface, e.g. for establishment of a crop field
2.	Yes, only selective cutting	Removal of individual trees
3.	No	No trees cut

If '3', go to Q.6.9. If '2', go to Q.6.7.

6.2 How large an area of forest was cleared?

If the respondent indicated in Q. 6.1 that HH had cleared an area of trees (option '1'), follow up by asking how large an area it was (in lima).

6.3 What was the cleared land used for after clearing?

If the respondent indicated in Q. 6.1 that HH had cleared an area of trees (option '1'), follow up by asking what the cleared land was used for after clearing it. Among the options that apply, rank the three most frequent.

Code	Option	Definition
1.	Cropping	Cultivation of agricultural crops, including agro-forestry and fruit trees
2.	Tree plantation	Planting of trees. Does not include fruit trees and agroforestry species (in that case use option 1).
3.	Livestock	Used for keeping / grazing animals.
4.	Infrastructure/settlements	Used for buildings / roads etc.
5.	To produce ash for fertilizer	
6.	Not used	
7.	Left to regenerate	For example after charcoal production
8.	Other	Specify

6.4 Which main crops were grown?

If respondent indicated in Q. 6.3that the cleared land was used for cropping (option 1), follow up by asking what the type of crops were grown on the land. Rank the three crops taking up most land. Use code N (appendix IV).

6.5 What type of forest did your HH clear?

If the respondent indicated in Q. 6.1 that HH had cleared an area for trees (option 1), follow up by asking which type of forest was cleared. Multiple selections are possible. 'Other' could include areas used for agro-forestry or similar land uses which do not qualify as 'forest'.

6.6 How many years since the area was previously cleared?

If respondent indicated in Q. 6.5 that secondary forest was cleared (option 2), follow up by asking how many years have passed since the same area was previously cleared (i.e. how long did the forest/trees grow in between the two points in time where the area was cleared).

6.7 <u>Where did you cut the trees?</u>

If respondent indicated in Q. 6.1 to have done area clear cutting (option 1) or selective cutting (option 2), follow up by asking what type of tenure apply to the areas in question. Multiple selections are possible.

Code	Option	Definition
1.	On land to which HH already have rights	HH has had rights to this land for a longer time.
2.	In a new area on customary land, not previously used or owned by HH	E.g. HH was allocated this land recently by chiefs, or HH cleared land without permission.
3.	In protected areas not previously used or owned by HH	
4.	In GMA not previously used or owned by HH	
5.	On other state land	Trees were cut on state land (other than protected areas or GMA). HH might have been given a title to the land recently or HH was clearing forest without permission.
6.	Outside HH own land on land which is on lease	Trees were cut on private land (other than that belonging to the HH)
7.	Other	Specify

6.8 How far from the house were the trees cut?

If respondent indicated in Q. 6.1 to have done area clear cutting (option 1) or selective cutting (option 2), follow up by asking how far from the HH's house/homestay the cutting was done. Distance to be recorded in kilometers and in minutes (if the kilometers are not known).

6.9 Looking 5 years back – including the last 12 months – has the HH cut any trees?

This question is similar to Q. 6.1, however refers to the last 5 years period. The period of 5 years include also the last 12 months. Thus, if the HH during the last 12 months have been doing any tree cutting (indicated as '1' or '2' in Q. 6.1) these events should also be taken into account in the present question. In cases where the HH indicated '3' (no) in Q. 6.1, it may not rule out the possibility that the HH did tree cutting in an earlier before (within 5 years from present time). Multiple selections are possible, although not in combination with option 3 (no cutting). For description of options, see Q. 6.1. If '3' (no cutting) or '2' (only selective cutting), go to Q. 6.11.

6.10 How large an area did the HH clear?

If respondent indicated in Q. 6.9 to have cleared forest in last 5 years (option 1), follow up by asking how large an area (in lima) has been cleared in total during that period of time. Note that this should include the area reported in Q. 6.2.

6.11 Did the HH during the last 5 years allow any cropland to re-grow into forest (including fallow)?

Ask respondent if the HH abandoned any of their land used for agricultural cultivation during the last 5 years, which allowed the area to return into forest. If 'no', go to Q. 6.14.

6.12 During the last 5 years, how much cropland the HH allowed to re-grow into forest?

If 'yes' (option 1) in Q. 6.11, follow up by asking how large and area (in lima) was abandoned by HH and regrown into forest.

6.13 How did the forest grow back?

If 'yes' (option 1) in Q.6.11., follow up by asking how the forest grew back. Multiple selections are possible.

Code	Option	Definition
1.	Sprouting from stumps	The forest re-grew from existing stumps on the area
2.	Natural regeneration by seedlings	The forest re-grew naturally through germination of seedlings lying on the ground
3.	Planting	The HH (or someone else) actively planted trees for forest to grow on the area.
4.	Other	Specify

6.14 Did your HH plant any trees during the last 5 years?

Ask respondent if members of the HH have done any tree planting during the last 5 year. Note that if '3' was answered in Q. 6.13, the answer in the present question will be '1' (yes). If '2' (no), go to section 7.

6.15 How many trees did you plant?

If respondent answered 'yes' (option 1) in Q. 6.14, follow up by asking how many trees the HH planted. The trees indicated as planted include any trees, also fruit trees and agro-forestry species. In the event that a larger area was planted with trees, and the number of trees not known, go to question Q. 6.16 asking for the area planted.

6.16 How large an area did you plant?

If respondent answered '1' (yes) in Q. 6.14, follow up by asking how large an area (in lima) of trees was planted. The question is only valid if trees were planted over a complete surface, i.e. not when few trees were planted or if trees were planted separately with long in-between distances. Mark N/A if no complete surface planted.

6.17 <u>Who planted the trees?</u>

If respondent answered '1' (yes) in Q. 6.14, follow up by asking who in the HH planted the trees.

Options are as in code B. Multiple options are possible.

6.18 <u>What have been the main purposes of the trees planted?</u>

If the HH had planted trees (yes in Q. 6.14), find out the person who did the planting and mark the PID number from the household member list. If several HH members planted trees, mark those (a, b, c) to different columns. If the person planting the trees was not a HH member or is not anymore in the HH, mark '99'.

Once you know who planted the trees, find out if the person who did the planting is available. If not, mark '20' (not available to answer). If the person is available to answer, pose questions 6. 18 directly to him/her to find out the main purpose(s) of planting the trees. If more than one purpose, ask the person to rank the main ones (max 3). Ask separately for all people who have planted trees.

6.19 What were the main species planted for each use?

For each purpose indicated in Q. 6.18., record what were the three main species planted. Species can be recorded by their local name. In that case, mark a letter in parenthesis after the species name, to indicate in which language the species is recorded in. B= Bemba, N= Nyanja, K= Kaonde, L= Lozi, T= Tonga, Lu= Lunda, Lve=Luvale.

The question should be posed to each of the household members involved in tree planting activities during the last 5 years, but if the person is not available to answer (recorded code '20' for the purpose), another knowledgeable HH member can answer on her/his behalf.

SECTION 7: COLLECTION OF WOOD AND NON-WOOD FOREST PRODUCTS

The purpose of this section is to retrieve some basic information on the collection and use of wood and non-wood forest products by the household. This particular section is only to be asked if the HH has said that they collect wood or non-wood forest products (e.g. if options 9, 10, 11, 12 or 13 given to Q. 4.1). Note that many products may have already been mentioned during the course of the interview. Avoid repeating questions if answers have already been provided, but seek for elaboration and additional information.

Note also that all questions in section 7 refer to the forest products (wood and non-wood) provided in Question 7.1. For example, Q 7.2 "Which HH member(s) primarily collect the products?" refers back to each specific product provided in Q. 7.1.

Enumerator should cross-check answers in this section with information obtained during key informant interviews and focus group discussions as well as with their own observations from the surroundings.

7.1 Specify the forest products collected regularly during the last 12 months by HH members

Use the columns provided to list all the wood and non-wood forest products collected over the last 12 months. Use code A (see appendix IV). Do not record products that are only collected once (e.g. if children went once to pick fruits, that does not need to be recorded) – interest is in more regularly collected products. Continue on another sheet if HH has collected more than five products. Remember to refer to both "tree" and "forest" products to ensure that the question captures collection of all types of tree products – also those collected in areas which the respondent might not him/herself define as a "forest" (e.g. around home stay or in their shifting cultivation fields).

7.2 Which HH members primarily collect the products?

For every wood and non-wood forest product listed in Q. 7.1, indicate who in the household primarily collects the product. Use code B. Multiple options possible, e.g. in case both men and women regularly collect the product.

7.3 <u>What methods are mainly used in collecting/harvesting the product?</u>

For every wood and non-wood forest product listed in Q 7.1, indicate what methods are mainly used in collecting or harvesting the product. Code C. Multiple choice possible.

7.4 <u>Where do you collect the product (land use category)?</u>

For every wood and non-wood forest product listed in Q 7.1, rank the three most frequent sources (land use categories) where the wood and non-wood forest products are found (it might be collected in areas outside what the household defines "forest", e.g. in cropland). Leave blank if not applicable, i.e. if only collected in forest, leave other ranking options empty. Code D.

7.5 What quantities has the HH in total collected during the last 12 months?

For every wood and non-wood forest product listed in Q 7.1, indicate the approximate quantity that the HH has collected during the last 12 months. (This can be done with the help of the forest product quantification table.) In order to answer this question, it is important for the enumerator to ask explorative and supportive questions such as:

- What is the collection period during the year?
- What is the collection frequency?
- What is the quantity collected each time?
- If harvested wood/non-wood forest product is sold or bartered, how much is sold, bartered etc.?

7.6 Specify the unit related to the quantity provided in Q. 7.5

Specify the unit related to the quantities provided in Q. 7.5 for every wood and non-wood forest product provided in Q 7.1. E.g. kg, m3, bags (what size), oxcarts (what size), headloads (what size). Use the forest product quantification table to help to standardize the quantities.

<u>Note</u>: pre-determine local units of quantification and size of units (meda) from visiting local market prior to conducting interview (see section 2.2).

7.7 <u>Of the total quantity collected during the last 12 months, what are the different forest products</u> used for? (%)

Find out which proportions (%) of the collected product went for domestic use, sale, bartering or other uses. E.g. If all of this product was used at the household, mark '100 %' to the Domestic column. Specify "other" in the provided blank in Q. 7.7. Provide the associated proportion for every wood and non-wood forest product listed in Q. 7.1.

7.8 <u>What is the usual mode of transport when visiting the area in which collection of forest products</u> <u>usually takes place?</u>

For every wood and non-wood forest product listed in Q 7.1, provide the mode of transport used by the household member(s) to go to collect the forest product. Code E, multiple choice possible.

7.9.1 How far (in terms of time) is it to the site in which you usually collect the product? (minutes)

For every wood and non-wood forest product listed in Q 7.1, approximate how far it takes to arrive to the area in which the product is typically collected or harvested. To be provided in minutes.

7.9.2 <u>How far (in terms of distance) is it to the site in which you usually collect the product?</u> (kilometers)

For every wood and non-wood forest product listed in Q 7.1, approximate how far away the area is in which the product is typically collected or harvested. To be provided in kilometers. If product is collected at the home stead (e.g. fruit trees next to the house), mark 0.

7.10 <u>Who is transporting product away from collection site?</u>

For every wood and non-wood forest product listed in Q.7.1, record who is taking care of transporting the product away from the collection site. For example, is it household members or buyers of the product who is collecting the product at site? Multiple choice possible.

7.11. What is the mode of transporting the product away from the collection site?

For every wood and non-wood forest product listed in Q.7.1, record means of transportation used for transporting the product away from the collection site. Code E. Multiple choice possible.

7.12 Has the availability of the product changed during the last five years?

For every wood and non-wood forest product listed in Q 7.1, indicate if the availability of the product has increased, not changed or decreased. Availability refers to the amount available in the area.

7.13 <u>Response to declined availability</u>

For those products for which the availability had declined (option 3 in Q. 7.10), find out the HH's response to declined availability. Rank up to the three most important strategies per product. Code F.

SECTION 8: ACTIVITIES CONTRIBUTING TO HH INCOME AND HH CONSUMPTION

The purpose of this section is to retrieve some basic information on the general sources of both household income *and* consumption, their relative importance, and the degree to which wood and non-wood forest products contribute to these. "Income" refers to cash received by the household from providing a service, trading, selling products, etc. "Consumption" refers to the situation where products (both wood and non-wood) are consumed by the household itself (and not sold) and hereby contributes directly to the household's subsistence and welfare.

Note that the enumerator should cross-check answers in this section with answers provided in household livelihood and forest product collection sections (Q. 4.1, 7.1 and 7.7) as well as with information obtained during key informant interviews and focus group discussions. Also make own observations from the surroundings.

HH Income Generation Activities

Q. 8.1.1 During the last 12 months, what have been the sources of income for the HH?

In the column provided on the questionnaire, indicate "yes=1", "no=2" or "don't know=3"next to each potential income source.

Code	Option	Definition	
1.	Crop production	Income from selling of (non-processed) crops	
2.	Vegetable gardening	Income from selling vegetables	

3.	Fruit trees	Income from keeping fruit trees and selling the fruit	
4.	Livestock	Income from selling livestock or products derived from livestock	
5.	Aquaculture/Fish farming	Income from fish farming (income from selling the fish)	
6.	Fishing	Income from selling the fish they have captured	
7.	Hunting	Income from hunting (selling meat after hunting)	
8.	Processing of agricultural products for sale (crop, livestock, fish)	 Includes following cases: HH produces, processes and sells the agricultural product. Ir this case income from selling is captured here and not under 1-crop production (to avoid double counting) HH buys the raw product, processes it further and sells it 	
9.	Collection/harvesting of wood products (e.g. timber, poles, etc.)	Income from selling non-processed wood products the HH members have collected / harvested	
10.	Collection of fuel wood	Income from selling fuel wood the HH members have collected	
11.	Production of charcoal	Income from selling charcoal HH members have produced	
12.	Collection/harvesting of non-wood food forest products	Income from selling food NWFPs HH members have collected , produced (e.g. fruit)	
13.	Collection/harvesting of non-wood forest products (other than food)	Income from selling non-food NWFPs HH members have collected , produced (e.g. rattan)	
14.	Processing of wood products (e.g. for furniture)	Income from selling processed wood products (whether or not the wood was harvested by the HH). Note: if the HH both harvests the wood and processes it before selling, the income should be captured here and not under 9-harvest of wood products (to avoid double counting)	
15.	Processing of non- wood forest products (food products)	Income from selling processed food NWFPs (whether or not the raw product was harvested by the HH). Note: if the HH both harvests the raw product and processes it before selling, the income should be captured here and not under 12 /13 (collection) (to avoid double counting)	
16.	Processing of non- wood forest products (other than food)		

18.	Handicraft	Income from making handicrafts (if not captured in the options above)
19.	Brick moulding	Income from brick moulding
20.	Own business (e.g. trade in goods / services)	Income/profit from own business activities. Do not count things already captured in the options above, such as selling of self-produced/collected/processed agricultural and forest products.
21.	Employment in forestry sector	Receiving wage/payment for forest product collection (e.g. working for a timber logging company) or processing or other employment in forestry sector.
22.	Employment in agricultural sector	Receiving wage/payment for agricultural production or processing.
23.	Other employment	Any activities done outside the HH for remuneration. Includes employment at public sector (e.g. work in local administration or school) and in private sector (e.g. shop assistant). Do not count employment in tourism/mining sectors as these are captured under options 24 and 26, respectively. Do not count here wage employment in agricultural production/processing nor forest product harvesting/processing, as these are captured in options 21 and 22.
24.	Tourism	Income generated from tourism / recreational activities
25.	Environmental services	Includes income e.g. from carbon projects or forest conservation
26.	Mining	Income generation provided by mining activities
27.	Remittances	Money sent by family members/relatives/friends working elsewhere
28.	Social security (e.g. pension)	Pension or other social security payments, whether from the state, employer or other similar source
29.	Other, specify	Any other source of income that cannot be classified in the above options. Specify.

8.1.2 For each activity marked as a source of household income, indicate the proportion of income from each identified activity

Note that this question is intended to provide an indication of relative importance of each activity of the household and will be determined using qualitative survey techniques, e.g. enumerators will provide respondent with 10 beans or stones to group according to importance to household income.

For example, if all HH income acquired through crop production, the respondent should place all 10 stones under this option (#1) and enumerator will mark down 100% under crop production. If instead income is split between activities, the enumerator will encourage the respondent to, as best as possible, divide the beans or stones up according to their importance to household income. If income from one of the sources

was marginal, it is possible not to allocate any item to this source. Total provided in this column should add up to 100%. One stone will correspond to 10%.

(In the rare event that there would be more than 10 income sources, the enumerator can choose to double the amount of stones, in which case each stone corresponds to 5 %.)

Contribution of forest products to HH income

8.2.1 During the last 12 months, which forest products have contributed to HH income?

Find out which of the listed products are sold by the HH, i.e. contributing to HH income. Mark the answers in the column provided on the questionnaire and indicate "yes=1", "no=2" or "don't know=3" next to each product. Note: Take point of departure from answers provided in Section 7: Forest product collection (Q. 7.1, products collected and Q. 7.7, use of products: domestic, sale, bartering). If the respondent has participated only in the processing of the product but not in the original collection / production (for example if the respondent is making wood carvings on wood acquired from someone else), it is not counted in here.

8.2.2 Rank the most important forest products to HH income

Rank from most important (1) to least important (5). If the HH had received income from the forest products, ask from which product they received most income during the last 12 months. Mark '1' for that product. Continue similarly until all income generating forest products have been ranked. If the HH received income from more than 5 forest products, rank only the 5 most important ones.

HH Subsistence/Consumption Activities

8.3.1 During the last 12 months, what have been the sources for HH's own consumption

The purpose of this question is to find out about if agricultural production and forest product collection contribute for HH's <u>own consumption</u> (i.e. produce is used/consumed at the HH and not sold for income). In the column provided on the questionnaire, indicate "yes=1", "no=2" or "don't know=3" next to the each activity/source, depending if the HH is involved in the activity and uses themselves at least part of the product. (Multiple choice possible).

8.3.2 <u>Relative importance of food sources</u>

Note that this question pertains only to sources of food. It is intended to provide an indication of relative importance of each food source of the household and will be determined using qualitative survey techniques, e.g. enumerators will provide respondent with 10 beans or stones to group according to importance to household food consumption. Total annual food consumption of the household is 100 %, and you want to find out how big part comes from which source. Note that the last row "food acquired through buying/bartering/gift/aid" for some households may contribute with a considerable source, in particular in urban and semi-urban areas where self-produce is less frequent.

Example:

Food source	Respondent allocation	Enumerator to mark:
Crop production	6 stones	60 %
Livestock	1 stone	10 %
Collection of food NWFPs	1 stone	10 %
Food acquired through buying/bartering/gift/aid	2 stones	20 %
(Total HH food consumption)		(100%)

(In the rare event that there would be more than 10 income sources, the enumerator can choose to double the amount of stones, in which case each stone corresponds to 5 %.)

SECTION 9: SALE, TRADE AND MARKETING OF WOOD AND NON-WOOD FOREST PRODUCTS

The purpose of this section is to retrieve some basic information on the household sale, trade and marketing of wood and non-wood forest products.

Selling of forest products

(If no products are sold, go to Q. 9.15)

Note that all questions on this questionnaire page refer back to Q 7.1 & Q. 7.7. Record to the columns each forest product that HH collected for selling. Do not record those products that were collected for domestic consumption or bartering. Thereafter, ask the questions 9.1 - 9.14 for each product that was sold, and record answer codes to the column for that product. If no products are sold, go to Q. 9.15.

Also note that the enumerator should cross-check answers in this section with information obtained during key informant interviews and focus group discussions as well as with their own observations from the surroundings and from visiting the local markets.

9.1 What price per unit do you receive from selling the product?

For each forest product provided in the columns (taken from section 7), indicate the unit price obtained for each. Note: currency should be given in Zambian Kwacha (ZMW).

9.2 Specify the unit

For each forest product provided in the columns, indicate the unit which is referred to in Q. 9.1 (e.g. per bundle, per kg, per bag, etc).

9.3 What was the total income derived during the last 12 months from selling the product?

For each forest product provided in the columns, approximate the total income received over a 12-month period. To be cross-checked by adding price per unit with quantity collected (Q. 7.5) and sold (Q. 7.7). E.g. if collected in total 100 kg, sold 30 % of this and received 5 kwachas per kg, the calculation is 100 kg x 0,3 x 5 ZMW/kg = 150 ZMW

If the collection and selling units are not the same, these need to be converted before calculation.

9.4 Which member of the HH is generally making the decision on selling the product?

For each forest product provided in the columns, indicate who in the household is usually making the decision on whether the product is sold or not. Code G.

9.5 Which member of the HH is primarily involved in the sale?

For each forest product provided in the columns, indicate who in the household is primarily involved in the sale of each product. Code B.

9.6 Where does the sale of the product primarily take place?

For each forest product provided in the columns, indicate the location where the respective forest product is sold. Code H. Options 1-3 refer to places within the same community, 4-5 to places outside the community but within the same district, 6 to places outside own district but within the same province, and 7 to places outside their own district but in Zambia. Option 8 refers to cross-border trade and export of the product. Note that selling refers to the first level selling: e.g. if the harvesters first sell the product to a company that then further sells the product abroad, record location of selling to the company.

9.7 What is the usual mode of transport to the point of sale?

For each forest product provided in the columns, indicate how the forest product is transported to the point of sale. Code E.

9.8 How far is it to the point of sale? (time in minutes)

For each forest product provided in the columns, indicate how long it takes to arrive to the point of sale in terms of time (in minutes).

9.9 <u>How far is it to the point of sale?</u> (distance in kilometres)

For each forest product provided in the columns, indicate how far it takes to arrive to the point of sale in terms of distance (in kilometres).

9.10 In what form is the product usually sold?

For each forest product provided in the columns, indicate in what form the product is usually sold (raw / semi-processed / processed).

9.11 <u>To whom is the product usually sold (e.g. who are the buyers)?</u>

For each forest product provided in the columns, indicate to whom the forest product is usually sold. Code I.

9.12 <u>Where do the buyers of the product usually come from (locations)?</u>

For each forest product provided in the columns, indicate where the buyers of each product come from. Code J.

9.13 How is the product sold (through which channel)?

For each forest product provided in the columns, indicate through which channel the product is sold. (Individuals / Resource User Group / Civil society organizations / Other, to be specified).

9.14 <u>During the last 12 months, who in the household has typically decided on the use of income</u> <u>derived from selling the product?</u>

For each forest product provided in the columns, indicate who in the household has typically decided how the income derived from the sale of the forest product is used. Code G.

Bartering of forest products

(If no products are bartered, go to Q. 10.1)

Note that all questions on this questionnaire page refer back to Q 7.1 & Q. 7.7. Record to the columns each forest product that HH collected for bartering. Do not record those products that were collected for domestic consumption or selling (for money). Thereafter, ask the questions 9.15 - 9.25 for each product that was bartered, and record answer codes to the column for that product. If no products are bartered, go to section 10.

9.15 <u>What was received in exchange of the product when bartered?</u>

For each forest product provided in the columns (taken from section 7), indicate what was exchanged for the bartered/traded product. Code K. Multiple options possible.

9.16 <u>Which member of HH generally makes the decision on bartering of the product?</u>

For each forest product provided in the columns, indicate who in the household typically makes the decision on bartering of the product. Code G.

9.17 <u>Which member of HH is primarily involved in the bartering?</u>

For each forest product provided in the columns, indicate who actually carries out the bartering. Code B.

9.18 <u>Where does the bartering of the product primarily take place (location)?</u>

For each forest product provided in the columns, indicate where the exchange typically takes place. Code H.

9.19 <u>What is the usual mode of transport to the exchange location?</u>

For each forest product provided in the columns, indicate how the product is transported to the point of bartering. Code E.

9.20 How far is it to the exchange location? (time in minutes)

For each forest product provided in the columns, indicate how far it takes to arrive to the point of exchange in terms of time (in minutes).

9.21 <u>How far is it to the exchange location?</u> (distance in kilometres)

For each forest product provided in the columns, indicate how far it takes to arrive to the point of exchange in terms of distance (in kilometres).

9.22 In what form is the product usually bartered?

For each forest product provided in the columns, indicate in what form the product is usually bartered (raw / semi-processed / processed).

9.23 <u>Who is usually the counterpart in bartering of the product? (e.g. who are the traders)?</u>

For each forest product provided in the columns, indicate to whom the product is usually bartered. Code I.

9.24 <u>Where do the counterparts usually come from (locations)?</u>

For each forest product provided in the columns, indicate where the counterparts of each product come from. Code J.

9.25 <u>How are the forest products bartered (through which channel)?</u>

For each forest product provided in the columns, indicate through which channel the product is bartered. (Individuals / Resource User Group / Civil society organizations / Other, to be specified.)

SECTION 10: FOOD SECURITY, CRISIS AND COPING STRATEGIES

The purpose of this section is to retrieve some basic information on the general food security situation of the household (sources during wet, cold and dry seasons) as well as coping strategies in times of crisis & food insecurity.

Note that the enumerator should cross-check answers in this section with information obtained during key informant interviews and focus group discussions as well as with their own observations from the surroundings.

10.1 During the 2013-2014 rainy season, which sources did the HH's food mainly come from?

Provide response in terms of *percentage*, using the bean/stone qualitative technique.

Note that this question is intended to provide an indication of the degree to which the household depends upon each source of food and will be determined using qualitative survey techniques, e.g. enumerators will provide respondent with 10 beans or stones to group accordingly.

For example, if all HH food source acquired through own crop production, the respondent should place all 10 stones under this option (#1) and enumerator will mark down 100% under crop production. If instead food source is split between different options, the enumerator will encourage the respondent to, as best as possible, divide the beans or stones up accordingly. Total provided in this column should add up to 100%.

10.2 During the 2014 cold season, which sources did the HH's food mainly come from?

Provide response in terms of *percentage*, using the bean/stone qualitative technique.

10.3 During the 2013 dry season, which sources did the HH's food mainly come from?

Provide response in terms of *percentage*, using the bean/stone qualitative technique.

10.4.1 <u>Has the household faced any major crisis or unexpectedly large expenditures which have led to income or food shortfalls during the past 12 months?</u>

If so, how severe have they been? For each of the options presented on the questionnaire under Events, indicate '1' (no crisis), '2' (yes, moderate crisis) or '3' (yes, sever crisis).

Note that "severe crisis" is defined as a death or significant loss of income (approximately one third of total household income).

10.4.2 How did you cope with the event(s)?

For each event identified as having occurred (i.e. options '2' or '3' in Q. 10.4.1) rank the top three ways in which the household has coped with the resulting income or food shortfall in the columns provided. Use code M. If HH's coping mechanisms did <u>not</u> include options '1' or '2' (collecting more forest products), skip the rest of this section and go to Q. 11.1.

10.5 <u>Most important forest products collected to cope with crisis – collected for own consumption</u>

If household harvested more forest products for <u>own consumption</u> (i.e. code '1' in Q. 10.4.2) to cope with the crisis, which were the most important forest products collected? (*Code A*) (*Rank 1-3*)

In the case where a household has harvested more forest products to cope with the crisis, rank the three most important products harvested/collected in the space provided.

10.6 <u>Most important forest products collected to cope with crisis – collected for sale/excange</u>

If household harvested more forest products for <u>sale/barter</u> (i.e. code '2' in Q. 10.4.2) to cope with the crisis, which were the most important products collected? (*Code A*) (*Rank 1-3*)

SECTION 11: BUYING AND BARTERING OF WOOD AND NON-WOOD FOREST PRODUCTS

The purpose of this module is to retrieve some basic information on household purchases of wood and non-wood forest products. The enumerators are encouraged to target this question to the person involved in the purchasing/buying of these products since she/he is likely to know best the amounts and prices of each.

Note that questions 11.3-11.14 refer to the forest products listed under Q.11.2 (i.e. those products which the household purchased). Questions 11.17-11.28 refer to the forest/tree products listed under Q 11.16 (i.e. those products which the household bartered).

Note that the enumerator should cross-check answers in this section with information obtained during key informant interviews and focus group discussions as well as with their own observations from the surroundings.

Buying of forest products

11.1 Buying of wood and non-wood forest products

Find out if the household bought any wood or non-wood forest products during the last 12 months.

11.2 <u>Purchased forest products</u>

If the household has bought any forest products during the last 12 months ('yes' to Q. 11.1), list which products were bought. Record each purchased product to a separate column. The subsequent questions apply to each product listed. Refer to Code A for a list of options. If options provided are not suitable, please specify the response under "other".

11.3 <u>What was the approximate price paid per unit bought?</u>

For each forest product purchased and listed in the columns in Q. 11.2, indicate the approximate price you paid for each in Zambian Kwacha.

11.4 What is the unit of the purchased forest product?

For each forest product purchased and listed in the columns in Q. 11.2, indicate the respective unit (bag, bushel, kilogram, etc.) referred to in Q. 11.3.

11.5 <u>What was the quantity bought during the past 12 months?</u>

For each forest product purchased and listed in the columns in Q. 11.2, indicate the quantity purchased over the last 12 months. Use the forest product quantification table to help to standardize the quantities.

11.6 In what form was the product purchased?

For each forest product purchased and listed in the columns in Q. 11.2, indicate whether the product was purchased 1) 'raw', 2) 'semi-processed' or 3) 'processed'.

11.7 During the last 12 months, who generally made the decision on buying the product?

For each forest product purchased and listed in the columns in Q. 11.2, list who in the household was responsible for making the decision on buying the respective product. Refer to Code G for a list of options. If options provided are not suitable, please specify the response under "other".

11.8 Who is primarily involved in buying the product?

For each forest product purchased and listed in the columns in Q. 11.2, list who in the household is primarily involved in buying the product (i.e. actually conducting the transaction)? Refer to Code B for a list of options. Note that multiple options are possible.

11.9 <u>Where do you primarily buy the product?</u>

For each forest product purchased and listed in the columns in Q. 11.2, indicate where each is purchased. Refer to Code H for a list of options. Note that multiple options are possible.

11.10 What is the usual mode of transport to the location where the HH usually buys the product?

For each forest product purchased and listed in the columns in Q. 11.2, indicate how the household members travel to the point of sale. Refer to Code E for a list of options. If options provided are not suitable, please specify the response under "other".

11.11 How far is it to the location where HH mostly buys the product? (time in minutes)

For each forest product purchased and listed in the columns in Q. 11.2, indicate how long it takes to arrive to the point of sale of the forest product – in terms of minutes.

11.12 How far is it to the location where HH mostly buys the product? (time in kilometres)

For each forest product purchased and listed in the columns in Q. 11.2, indicate how long it takes to arrive to the point of sale of the forest product – in terms of distance (km).

11.13 Who are the main sellers of the product?

For each forest product purchased and listed in the columns in Q. 11.2, indicate who is primarily selling the product to the HH. Refer to Code L for a list of options. If options provided are not suitable, please specify the response under "other".

11.14 <u>Where do the sellers of the product usually come from</u> (locations)

For each forest product purchased and listed in the columns in Q. 11.2, indicate where the sellers typically come from in terms of location. Refer to Code J for a list of options. If options provided are not suitable, please specify the response under "other".

Bartering of forest products

11.15 Bartering of forest products

Find out if the household acquired any forest products through bartering during the last 12 months.

11.16 Products acquired through bartering

Find out which forest products have been acquired through bartering. Ask this question only if the household had acquired wood or non-wood forest products through bartering in the last 12 months ('yes' in Q. 11.15).

List each tree or forest product acquired in the columns provided. The subsequent questions apply to each product listed. Refer to Code A for a list of options. If options provided are not suitable, please specify the response under "other".

11.17 Unit (of forest product for which the exchange was made)

With reference to the previous question, indicate for which unit of the forest product the mentioned payment was made. (E.g. for 1 kg, for a 5 kg bag etc.).

11.18 <u>What did the HH give in exchange for a unit of forest product?</u>

For each forest product acquired through bartering and listed in the columns in Q. 11.16, indicate what was given in return/exchange. (E.g. a chicken, a bag of maize etc.)

11.19 <u>What was the quantity acquired during the past 12 months?</u>

For each forest product acquired through bartering and listed in the columns in Q. 11.16, indicate the quantity acquired through bartering over the last 12 months. Use the forest product quantification table to help to standardize the quantities.

11.20 In what form was the product acquired?

For each forest product acquired through bartering and listed in the columns in Q. 11.16, indicate whether the product was acquired as 1) 'raw', 2) 'semi-processed' or 3) 'processed'.

11.21 <u>During the last 12 months, who generally made the decision on acquiring the tree and forest products?</u>

For each forest product acquired through bartering and listed in the columns in Q. 11.16, list who in the household was responsible for making the decision on acquiring the respective product. Refer to Code G for a list of options. If options provided are not suitable, please specify the response under "other".

11.22 <u>Who is primarily involved in bartering for this type of product?</u>

For each forest product acquired through bartering and listed in the columns in Q. 11.16, list who in the household is primarily involved in acquiring the product (i.e. actually conducting the exchange)? Refer to Code B for a list of options. Note that multiple options are possible.

11.23 Mostly, where does the bartering take place (location)?

For each forest product acquired through bartering and listed in the columns in Q. 11.16, indicate where each is mostly bartered. (Mostly is defined in terms of quantity.) Refer to Code H for a list of options. Note that multiple options are possible.

11.24 <u>What is the usual mode of transport to the location where the household barters for the specified product?</u>

For each forest product acquired through bartering and listed in the columns in Q. 11.16, indicate how the household travels to the point of exchange. Refer to Code E for a list of options. If options provided are not suitable, please specify the response under "other". If sold at the homestead, mark N/A.

11.25 How far is it to the location where the household barters for the product? (*Time in minutes*)

For each forest product acquired through bartering and listed in the columns in Q. 11.16, indicate how long it takes to arrive to the point of exchange – in terms of minutes.

11.26 How far is it to the location where the household barters for the product? (Distance in kilometres)

For each forest product acquired through bartering and listed in the columns in Q. 11.16, indicate how it is to the point of exchange – in terms of distance (km).

11.27 <u>Who are the main suppliers (those engaged in bartering) of the product?</u>

For each forest product acquired through bartering and listed in the columns in Q. 11.16, indicate who is primarily providing the product. Refer to Code L for a list of options. If options provided are not suitable, please specify the response under "other".

11.28 <u>Where do the suppliers of the products usually come from (locations)?</u>

For each forest product acquired through bartering and listed in the columns in Q. 11.16, indicate where the providers typically come from in terms of location. Refer to Code J for a list of options. If options provided are not suitable, please specify the response under "other".

SECTION 12: ENERGY SOURCES AND UTILIZATION

The purpose of this section is to retrieve some basic information on what energy sources the household relies upon and to gauge the awareness and use of alternative energy sources beyond firewood and charcoal.

For the information gathered on quantity used, the enumerators should be prepared to help respondent in approximating this figure (i.e. mapping out the amount recently purchased and how long it lasted and then extrapolating over the course of one month).

Note that the enumerator should cross-check answers in this section with information obtained during key informant interviews and focus group discussions as well as with their own observations from the surroundings.

Charcoal

12.1 Is charcoal utilized by the HH?

Indicate in the space provided whether the household uses charcoal. If no charcoal is used, skip the rest of this part and go directly to Q. 12.5.

12.2 <u>What is the average quantity of charcoal used per month?</u>

Approximate in the space provided the average quantity of charcoal used by the household per month. Use the forest product quantification table to help to standardize the quantities.

12.3 <u>Unit</u>

Specify the unit of measure that the quantity provided in Q. 12.2 refers to.

12.4 How did the household obtain the charcoal?

Multiple options possible.

Fuel wood

12.5 Is fuel wood utilized by the HH?

Indicate in the space provided whether the household uses fuel wood. If no fuel wood is used, skip the rest of this part and go directly to Q. 12.10.

12.6 <u>What is the average quantity of fuel wood used per month?</u>

Approximate in the space provided the average quantity of fuel wood used by the household per month. Use the forest product quantification table to help to standardize the quantities.

12.7 <u>Unit</u>

Specify the unit of measure that the quantity provided in Q. 12.6 refers to.

12.8 How did the household obtain the firewood?

Multiple options possible. Note if the fuel wood is not self-collected, skip to Q. 12.10.

12.9 How much time do the household members spend for the collection? (hours)

The response is to be given in hours per day, week or month (mark the appropriate number: 1= day, 2= week, 3=month). Response should include both time spent in collection and in travel to and from the collection spot. Note that it is important that this question be asked from the person doing the collection/harvesting (see answer to Q. 7.2). If answered by the person who is involved in the collection, mark "1" in the box provided.

Alternative energy sources to fuel wood and charcoal

12.10 <u>Which alternative energy sources does the HH know exist for fuel wood and charcoal?</u>

Record which other energy sources the respondent(s) is (are) aware that could substitute firewood and charcoal. Mark '1' next to the appropriate row. Do not read options aloud.

12.11 Is the HH using any of the known energy sources as alternative to fuel wood or charcoal?

Mark '1' in the appropriate row in the case that the specified energy source is being used and '2' wherever specified energy source not in use. Only ask for those alternative energy sources that the respondent(s) knew ('yes' in 12.11).

12.12 <u>What are the main reasons for not using the specified energy source?</u>

Ask in cases where alternative energy source is known ('yes' in 12.11) but not being used ('no' in 12.12).

Energy efficient stoves

12.13 Energy efficient stove

Find out if the household is using an energy efficient stove.

12.14 <u>Reasons for not using an energy efficient stove</u>

If the household does not use an energy efficient stove, find out why not. Multiple options possible.

7. DESCRIPTION OF THE INDIVIDUAL SECTIONS TO THE HOUSEHOLD QUESTIONNAIRE

SECTIONS 13 and 14: INDIVIDUAL SECTION/MEN and INDIVIDUAL SECTION/WOMEN

The purpose of these sections are to find out the importance of forest resources for men's and women's individual income, their perceptions on the importance of various forest products for the household consumption, as well as to gather information on forest products collected by men and women respectively.

Identification particulars

Copy the relevant identification particulars from the main household questionnaire, so that the individual sections can be attached to the correct HH questionnaire:

- HH serial number from Q. 1.10 in the HH questionnaire.
- Record name of the respondent. (Q. 2.1 in HH questionnaire)
- Copy PID from the HH questionnaire (as appears in section 2).

13.1 / 14.1 Sources of income (individual)

Find out the sources for income for the interviewed person during the last 12 months. The response is either Yes or No or Do not know for each of the income source options. For description of options, see explanations for Q. 8.1.1.

13.2 / 14.2 Proportion of income from each identified source

Provide the respondent with 10 items (e.g. stones) and ask him/her to allocate those for each identified source of income based on how much income he/she received from that source. E.g. if the respondent had said he/she got income from crop production, livestock and trade, the items should be allocated to (maximum) three piles. Size of each pile should represent the proportion of income from that source. If income from one of the sources was marginal, it is possible not to allocate any item to this pile.

Example:

Income source	Respondent allocation	Enumerator to mark:
Crop production	7 stones	70 %
Livestock	1 stone	10 %
Trade	2 stones	20 %

If the respondent has only one income source, enumerator can mark 100 % for that source.

(In the rare event that there would be more than 10 income sources, the enumerator can choose to double the amount of stones, in which case each stone corresponds to 5 %.)

13.3 / 14.3 <u>Contribution of wood and non-wood forest products to individual income</u>

Find out which wood and non-wood forest products have contributed to the respondent's income. The response is either Yes or No or Do not know for each of the income source options.

Note that this question is only looking at the cases where the respondent has acquired income from these products by collecting and selling them. If the respondent has participated only in the processing of the product but not in the original collection / production (for example if the respondent is making wood carvings on wood acquired from someone else), it is not counted in here. If the person is working for wage in the forest product collection/processing, it is not counted in here.

Note that if the respondent receives income from these products, you should also have marked 'yes' to some of the options 9-13 in Q 13.1 / 14.1.

13.4 / 14.4 Ranking the most important wood and non-wood forest products to individual income

If the respondent had received income from the forest products, ask from which product he/she received most income during the last 12 months. Mark '1' for that product. Then ask for the next most important product for income and mark '2' for that product. Continue similarly until all income generating forest products have been ranked. If the respondent receives income from more than 5 forest products, rank only the 5 most important ones.

13.5 / 14.5 Marking forest products that have contributed to household's own consumption

Copy from main questionnaire, Q 7.7 those forest products that the household members collected and which they (at least partly) used or consumed within the household. When interviewing other than the main HH questionnaire respondent, you can check "So your household collects and uses (this and this forest product). Are there any other forest products that your household collects and uses that we have forgotten to mark?" In this way we can capture products that might not have been mentioned by the main respondent.

13.6 / 14.6 Importance of wood and non-wood forest products for household's own consumption

The purpose of this question is to find out the perceptions of men and women on which of the collected forest products are most important/necessary for the household's <u>own consumption</u>.

Refer to the forest products that are collected by the household (recorded in Q 13.5 / 14.5). Ask which one of those is the most important for the households own use, which is the second most important etc. Mark '1' for the product that they feel they need the most (most important), '2' for the second most important etc. If the household have collected and themselves used more than 5 different forest products during the last 12 months, rank only the 5 most important ones.

Note that this question refers to importance for the household's own consumption (products that are important because they need them for own use), <u>not</u> importance for income (products that are important because HH receives income from those).

13.7 / 14.7 Forest product collection

Find out which forest products are collected by the respondent. <u>Mark product per column and ask all the</u> <u>subsequent questions for each collected product.</u> Mark N/A if the individual does not collect any forest products. If no forest products are collected by the respondent, thank him/her and end the interview.

13.8 / 14.8 Quantities collected

For each product that the respondent collected, find out what quantities he/she collected during the last 12 months. Use the forest product quantification table to help to standardize the quantities.

13.9 / 14.9 <u>Unit</u>

Specify the unit for measuring the quantity collected. E.g. kg, m³, bags (what size), oxcarts (what size), headloads (what size).

13.10 / 14.10 Use of the collected products

For the amount that the respondent collected, find out which proportions (%) went for domestic use, sale, bartering/exchange or other uses. E.g. If all of this product was used at the household, mark '100 %' to the Domestic column.

If no product was sold, end the interview and thank the respondent. If some or all products were sold, continue to ask the rest of the questions for those products.

13.11 / 14.11 Location of selling the product

With reference to the products collected by the respondent, find out where each product is sold. Use code H.

13.12 / 14.12 In which form sold

Find out if the product was further processed before selling. Mark '1' if not, '2' if it was partially processed and '3' if processed.

13.13 / 14.13 Channels of selling

Find out if the person sold the product directly as an individual/household, or if the selling was done through a resource user group, civil society organization or other channel.

13.14 / 14.14 Price per product unit

Find out what price was received from selling the product. Mark down price per unit in new kwachas (ZMW), e.g. '5'.

13.15 / 14.15 <u>Unit</u>

Specify for which unit the price was paid. The unit can any unit, but try to quantify it e.g. through observations. E.g. 'kg', 'm³', 'bag (50kg)', 'oxcart (2 m³)' etc.

13.16 / 14.16 Total income from selling the product

Find out the total income from selling the product during the last 12 months and record in ZMW. Cross-check with the total amount collected (Q 13.8 / 14.8), percentage sold (Q 13.10 / 14.10), and price received per unit (Q 13.4 / 14.4). E.g. if collected in total 100 kg, sold 30 % of this and received 5 kwachas per kg, the calculation is 100 kg x 0,3 x 5 ZMW/kg = 150 ZMW

If the collection and selling units are not the same, these need to be converted before calculation.

13.17 / 14.17 Who controls the income

Find out who has generally decided on how this income (received from selling the product) has been used. Record '0' if the respondent has usually decided on the use of this money, '1' if decisions have mostly been made by (other) men in the household, '2' if equally by men and women, '3' if by (other) women in the household. If decisions have been made by persons outside the household, mark '4' (other). Mark only one option.

APPENDIX I: KEY INFORMANT INTERVIEW QUESTIONNAIRE



Forest Livelihood and Economic Survey 2014



Food and Agriculture Organization of the United Nations

KEY INFORMANT INTERVIEW

AREA IDENTIFICATION PARTICULARS	CODE NUMBER
1.1 STRATUM:	
1.2 CLUSTER:	
1.3 PROVINCE NAME:	
1.4 DISTRICT NAME:	
1.5 CONSTITUENCY NAME:	
1.6 WARD NAME:	
1.7 REGION: (1=rural 2=urban)	
1.8 CSA NUMBER:	
1.9 SEA NUMBER	
1.10 CHIEF / CHIEFTAINESS' AREA:	
1.11 VILLAGE/LOCALITY NAME:	
1.12 INTERVIEWER:	
1.13 DATE OF INTERVIEW:/// 1.14 TIME START 1.15 TIME END	

KII 1 Res	pondent				
K1.1	Name of the key informa	ant			
K1.2	Sex of the key informant	t 1. male 2. female			
K1.3	Position of the key infor	mant			
K1.4	Telephone number of th	e key informant			
KII 2 Exis	stence and ownership of	forest/wooded land i	n the ar	ea	
K2.1	Is there any forest/wood				
	community/area? 1. Ye	s 2. No			If 'no', go to section KII 4.
К2.2	What is the ownership o	of the forest/wooded la	and? (m	ultiple options	· · · · · · · · · · · · · · · · · · ·
	possible) 1. State fores	t 3. Private/leasehold	d		
	2. Customary	4. Other, specify		_	
	ection only if there is forest/				
	est product users harves			t products in the a	area
K3.1	Are there any users colle				
	non-wood forest produc		nity of		
1/2 2 14/1	the community? 1. Yes 2			If 'no', go to sectio	
	ich wood or non-wood fo	•	rested		he main user groups for
	rest/wooded area? (in las	-		? (Ran	k 1-3 for each product)
Fuelv	strial wood	Herbs and spices			
Char		Dying / tanning Seeds (for regeneration		Users from within	
	d for wood carvings	purposes)	•	a) Community mb) Small-scale col	
	d for poles	Fibres (for rope etc.)		c) Large-scale co	
	s, nuts, seeds, roots,	Other plant products		Users from outside	
berri	es, etc.	Wildlife (including bush		d) Subsistence or	
	nrooms	Beekeeping activities /	honey	e) Small-scale co	mmercial users
Fodd		collection		f) Large-scale co	mmercial users
Ratta		Caterpillar			
Pidilt	medicines	Other	_	g) Other, specify	
				1. (2.)	
				(3.)	
				1.	
				(2.)	
				(3.)	
				1.	
5		(2.)			
Product				(3.)	
Pro				1.	
				(2.)	
				(3.)	
				(2.)	
				(3.)	
				1.	
				(2.)	
				(3.)	

		1.	
	-	(2.)	
		(3.)	
KII 4 Fe	orest product users that originate within the community	but go elsewhere to harvest	
K4.1	Are there any users in the community, who go		
	elsewhere to collect/harvest wood or non-wood forest		
	products? 1. Yes 2. No	If 'no', go to section KII 5.	
K4.2	Which user groups from within the area/community go	K4.3 Which wood and non-wood forest	
	to other areas to collect/harvest wood or non-wood	products are collected by each user group?	
	forest products? Yes=1; No=2; Do not know=3	(Code A, multiple choice possible)	
	a. Community members		
	b. Small-scale commercial users		
	C. Large-scale commercial users		
	d. Other, specify		
KII 5 A	rea particulars		
K5.1	Settlement history: What are the main historic events	 Wars Insecurity, ethnic conflict 	
	that you remember from this area, such as conflicts,	3) Change of ownership/ land tenure	
	change of land tenure, natural disasters etc.?	4) Expansion of agriculture	
		5) Urban development	
	(circle all that apply)	 6) Infrastructure, electric power (recent installation) 	
		7) Economic crisis	
		8) Drought	
		9) Flood	
		10) Other natural disaster	
		11) Pests	
		12) Human diseases	
		13) Rural-to-urban migration	
		14) Urban-to-rural migration	
		15) Rural-to-rural migration	
		16) urban-to-urban migration	
		17) Immigration18) Emigration	
		19) Squatters	
		20) Others To be specified	
K5.2	Population dynamics: Has there been changes in	1) Decreasing	
		2) Stable	
	population in last 5 years? (circle appropriate option)	3) Increasing	
		4) Not known	
	s section only if there is forest/wooded land within or nearby the	community ('yes' in K2.1)	
	imber extraction and silvicultural practices	1 No folling	
K6.1	What kind of timber extraction is practiced in the area?	 No felling Clear-cutting (all or almost all trees in a 	
	Reference period: last 12 months. Multiple choices possible.		
		stand have been harvested)	

		 cleared from a stand with a few select ones remaining as seed trees) 4. Single tree selective cutting (selective felling extracting only trees of certain species, dimensions, quality, value, etc.) 5. Group felling (extraction of groups of trees) 6. Strip felling (extraction of strips of trees) 7. Not known
K6.2	What silvicultural practices are practiced in the area?	8. Other, specify 1. No silvicultural practice
		2. Pruning
	Reference period: last 12 months. Multiple choices possible.	3. Thinning
		4. Coppicing
		5. Pollarding
		 Enrichment planting/seedling – indigenous sp
		7. Enrichment planting – exotic sp
		8. Cleaning/Weeding
		9. Sanitary cutting
		10. Prescribed burning
		11. Fire break
		12. Other

Based on the answers in KII 2 and KII 3, agree on the focus group discussion participants

Scenario 1

Forest/wooded land in the area or nearby

Forest product harvesters/collectors present in the community

Participants:

- Variety of forest product users using the resources from nearby forest.
- Any community members that can answer to the demand side

Questions to be asked:

• All questions

Scenario 2

No forest/wooded land in the area or near by

Forest product harvesters/collectors present in the community

Participants:

- User groups originating from the community but collecting products elsewhere.
- Any community members who can answer to the demand side

Questions to be asked:

• Sections 1, 2, 3, 6

Scenario 3

No forest/wooded land in the area or near by

No forest product harvesters present in the community

Participants:

 Variety of community members who can answer to the demand side

Questions to be asked:

• Sections 1, 2 and 6 and questions 3.23 and 3.24





Food and Agriculture Organization of the United Nations

Forest Livelihood and Economic Survey 2014

FOCUS GROUP DISCUSSION TOOL

Note: each group should have 1 lead facilitator for the discussion, and 1-2 other team members to take notes. Apart from marking the options, please record answers and interesting quotes. Start the FGD by asking the community to draw a resource map. Ranking questions to be asked in a participative manner – instructions in the manual.

AREA IDENTIFICATION PARTICULARS	CODE NUMBER
1.4 STRATUM:	
1.5 CLUSTER:	
1.6 PROVINCE NAME:	
1.4 DISTRICT NAME:	
1.5 CONSTITUENCY NAME:	
1.6 WARD NAME:	
1.7 REGION: (1=rural 2=urban)	
1.8 CSA NUMBER:	
1.9 SEA NUMBER	
1.10 CHIEF / CHIEFTAINESS' AREA:	
1.11 VILLAGE/LOCALITY NAME:	
1.12 LAND USE / VEGETATION TYPE:	
GPS COORDINATES: 1.13 Latitude (S):	de (E):
1.15 INTERVIEWER(S):	
1.16 DATE OF INTERVIEW:/// 1.17 TIME START 1.18. TIME END	

Group particulars:

1.19	Number of people in focus group	1women
	Guideline: separate groups for men and women	2men
	Guideline: ideally 8-10 people per group	
1.20	User groups present (multiple options possible)	
1.20		
	 Community members Small-scale commercial users from within the 	
	community	
	3. Large-scale commercial users from within the	
	community	
	4. Small-scale commercial users from outside the	
	community	
	5. Large-scale commercial users from outside the	
	community 6. Other, specify	
	0. Other, specify	
	Record any additional user group characteristics, e.g. if	
	producers of a particular product (e.g. charcoal)	
1.21	How many participants from each age group	1below 16 2. 16-35
		3. above 35
1.22	Main livelihood activity of the participants?	1 Nomadic
	Mark all that were represented	2 Hunter and gatherer
		 3 Farmer 4. Pastoralist
		5. Fishermen
		6 Logging
		7. <u>Handicrafts</u>
		8. Product processing or industrial
		 9. Trade related 10. Services (incl. government, tourism,
		health care)
		11Mining
4.00		12Other, specify
1.23	Residents or users from outside	 <u>Residents</u> Other users of the areas' forest products
	(Multiple options possible)	
1.24	Other group characteristics	
L	Level start the discussion by asking the community t	

Next, start the discussion by asking the community to draw a resource map.

FOREST A	CCESS	Option codes & notes		
2.1	 Do you have access to forest or wooded area for harvesting or collecting wood and/or non-wood forest products? 1 Yes 2 Some members of the group have access 3 No 4 Not aware 			
2.2	What is the distance to the forest/wooded area edge (time and km)	a. time (by transport: code E) b. km Forest/wooded area too far and thus not used by the user group/community (if no forest nearby and no one harvests forest products, go to Q 2.6)		
2.3	Do you need a permit to collect wood or non-wood forest products from this source? 1. Yes 2. Yes, for some products / purposes (specify) 3. No 4. Group is unclear	If 'no' \rightarrow go to Q 2.5		
2.4	In your opinion, is the permit granting process open and transparent? 1. Yes 2. No 3. Don't know			
	Mark also down any comments			
2.5	 Are there now more/less different wood and non-wood forest products available in that forest/wooded area than 10 years ago? 1. Now fewer products than 10 years ago (some products no more available) 2. No change (same products available now as 10 years ago) 3. Now more different products than 10 years ago 4. Don't know 			
2.6	In general, has your access to forest /wooded land improved or deteriorated during the last 5 years? 1 Improved 2 Deteriorated 3 No change	If 'no change' → go to Q 2.8		

	Discos indicate further whet led to show a 2 (10) (10)	
	Please indicate further what led to change? (multiple options possible)	
	CAUSES FOR IMPROVED ACCESS	
	Increased forest/ wooded land area	
	1. Increased forest area due to land left to regenerate	
	2. Increased forest area due to planting trees	
	3. Increased forest area due to conservation activities / more sustainable	
	harvesting practices	
	4. Increased forest area due to reduced use from large-scale commercial users	
	5. Increased forest area due to reduced local / small scale commercial use	
	6. Increased forest area due to climatic changes (e.g. increased rainfall)	
	7. Increased forest area due to other reasons, specify	
	Improved access	
	8. Improved rights to the forest area	
	9. More illegal access to the forest area	
	Other reason for improved access	
	10. Improved road / transport to the area	
	11. Other reason for improved access, specify	
2.7	CAUSES FOR REDUCED/DETERIORATED ACCESS	
	,	
	Reduced forest/wooded land area	
	12. Reduced forest area due to small-scale clearing for agriculture	
	13. Reduced forest area due to large-scale projects (plantations, new	
	settlements, mining activities etc.)	
	14. Reduced forest area due to charcoal production	
	15. Reduced forest area due to timber harvesting	
	16. Reduced forest area due to brick burning 17. Reduced forest area due to poor harvesting practices	
	18. Reduced forest area due to bush burning / fire	
	19. Reduced forest area due to natural disasters or pests	
	20. Reduced forest area due to other reasons (specify)	
	Restrictions to access	
	21. People from outside buying land and restricting access	
	22. State or local authorities restricting access	
	23. Customary or community restrictions on access	
	24. Some other restriction in access, specify	
	Other reason for reduced access	
	25. Deteriorated transport / road conditions	
	26. Other reason for reduced access, specify	
		l

	Where is new crop land usually opened up?	
	1. In customary land	
	2. In state land: protected areas	
	3. In state land: GMAs	
2.8	4. In other state land	
	5. On land which is on lease	
	6. Other, specify	
	7. Community/user group does not usually open up new crop land	
		If '7', go to Q 3.1
	Select one main option.	
	Do you usually apply for a permission to open up new land?	
	1. Yes, from customary chief	
	2. Yes, from state authorities	
2.9	3. Yes, from elsewhere	
	4. No, permission is usually not requested and land is opened up on	
	informal basis	
	5. Other (please specify)	

Notes on forest access:

COLLEC	TION OF WOOD AND NON-WOOD FOREST PRODUCTS	
3.1	Do you collect/harvest any wood or non-wood forest products?	
	1 Yes	
	2 No	
	3 Not aware	If '2' or '3', go to Q 3.23

3.2		ood and non-wood forest products do you collect	or	Most im	portant		`	Less impo	rtant	
	harvest?									
		to right from most to least important product) 1. Industrial wood								
	Wood Produ cts	 Industrial wood Fuelwood Charcoal Wood for wood carvings Wood for poles 		A	В	C	D	E	F	G
	NWFP – Plant Products	 Fruits, nuts, seeds, roots, berries, etc Mushrooms Fodder Rattan Plant medicines Herbs and spices Dying / tanning Seeds (for regeneration purposes) Fibres (for rope etc.) Other plant products 								
	NWFP – Animal Products	16. Wildlife (including bush meat)17. Beekeeping activities/honey collection18. Caterpillar								
3.3	What are	99. Other (specify) the main species you harvested (per product)?	1.							
5.5		most important to least important	1.							
		······································	(2.)							
			()							
			(3.)							
			(4.)							
3.4	1 In 2 N 3 D	vailability of the product changed during the last s acrease \rightarrow Ask next Q 3.5 for that product o change \rightarrow Ask next Q.3.8 for that product ecline \rightarrow Ask next Q 3.6 for that product o not know \rightarrow Ask next Q 3.8 for that product	5 years?							

Product	s (product columns continue from previous page)	А	В	С	D	E	F	G
3.5	Ask only if the availability of the product has increased:	1.	1.	1.	1.	1.	1.	1.
	What have been the reasons for the increase?	(2.)	(2.)	(2.)	(2.)	(2.)	(2.)	(2.)
	(Rank the reasons 1-3 for each product)	(3.)	(3.)	(3.)	(3.)	(3.)	(3.)	(3.)
	1 Less clearing of forests for agriculture (incl. pastoralism)	(01)	(01)	(01)	(0.)	(01)	(01)	(0.)
	2 Less collection of the product by locals (incl. less people)							
	3 Less collection of the product by people from other villages							
	4 Reduced use from large-scale commercial users/projects							
	5 Changes in management of forests							
	 6 Climatic changes, e.g. more rainfall 7 Forest clearing that increases supply of product (e.g. fuelwood) 							
	8 Conservation activities or more sustainable harvesting practices							
	9 Increased secondary forest (land left to regenerate)							
	10 Tree planting							
	11 Improved rights to the product							
	12 More illegal access to protected area							
	13 Reduced bush fires							
	14 Other, specify							
3.6	Ask only if the availability of the product has declined:	1.	1.	1.	1.	1.	1.	1.
	What have been the reasons for the decline?	(2.)	(2.)	(2.)	(2.)	(2.)	(2.)	(2.)
	(Rank the reasons 1-3 for each product)	(3.)	(3.)	(3.)	(3.)	(3.)	(3.)	(3.)
	1 Reduced forest area due to small-scale clearing for agriculture							
	2 Reduced forest area due to large-scale projects (plantations, new							
	settlements, mining activities etc.)							
	3 Increased use of the plant/tree due to more local (village) people collecting more							
	4 Increased use of the plant/tree due to more people from other villages							
	collecting more							
	5 Timber harvesting							
	6 Charcoal production							
	7 Brick burning							
	8 Poor harvesting practices							
	9 People from outside buying land and restricting access							
	10 State or local authorities restricting access							
	11 Customary or community restrictions on access 12 Bush burning/fire							
	13 Product attacked/consumed by pests/forest dwelling vermin							
	14 Natural disasters							
	15 Climatic changes							
	16 Other, specify							

Product	s (product columns continue from previous page)	А	В	С	D	E	F	G
3.7	 Ask only if decline in the availability of the product. What have you done in response to the decline in availability? 1. It did not influence the harvest of forest products 2. Increase collection time (incl. travelling to areas further away) 3. Buy the product from other suppliers 4. Reduce harvesting of the product 5. Stop harvesting of the product 6. Substitute with other type of forest product 7. Substitute with agricultural products 8. Conserving standing trees 9. Planting trees 10. Restricting access/use of forest Multiple options possible 							
3.8	Have you experienced any conflicts in relation to harvesting for forest products in 5 years? 1 Yes 2 No \rightarrow Ask next 3.10 for that product 3 Do not know \rightarrow Ask next 3.10 for that product							
3.9	 Ask only if conflicts: Which type of conflicts? 1. Conflicts with authorities 2. Conflicts with concessioners 3. Land-use conflicts with community members 4. Land-use conflicts with neighboring community 5. Conflicts with outsiders 6. Other type of conflicts (specify) 							
3.10	What has been the demand trend during the last in 5 years?1Increased2No change4Do not know							
3.11	What has been the supply trend during the last 5 years?1Increased3Decline2No change44Do not know							
3.12	What has been the trend in market price for the product duringthe last 5 years?1Increased2No change4Do not know							

Produc	ts (product columns continue from previous page)	А	В	С	D	E	F	G
3.13	From where have you received knowledge on harvesting forestproducts? (Rank 1-3)1Agricultural extension2Forest extension3Governmental agency4NGO5Church6School12Other, specify	1. (2.) (3.)						
3.14	 What would be the most appropriate ways to increase the benefits (use or income) from the wood and non-wood forest products you collect? Rank 1-3 Better access to the forest or product, i.e., more use rights Better protection of forest or product (avoid overuse) Better skills and knowledge on how to collect/use it Better access to credit/capital and equipment/technology Better access to markets and reduced price risk Invest in planting trees/forest product Develop forest user groups/collective action in harvesting Control fire Other (specify):	1. (2.) (3.)						
3.15	Record the main user groups for each product (based on KII + seek additions from the FGD 1. Community members 2. Small-scale commercial users from within the community 3. Large-scale commercial users from within the community 4. Subsistence oriented users from outside the community 5. Small-scale commercial users from outside the community 6. Large-scale commercial users from outside the community 7. Other, specify Have[user group] increased or decreased harvest of [product] during the last 5 years? 1. Increased 3 Decreased 2. No change 4 Do not know / user group not present							

Produc	ts and user groups (columns continue from previous page)	Α	В	С	D	E	F	G	
3.17	 What is the gender distribution in harvesting [product] among [user group]? 1. Only men/boys harvest the product 2. Women/girls represent less than 30 % of the harvesters of the product 3. Women/girls represent between 30 – 70 % of the harvesters of the product 4. Women/girls represent more than 70 % of the harvesters of the product 5. Only women/girls harvest the product 6. Do not know (user group not present) 								
3.18	 Are children participating in the harvesting of [product] among [user group]? 1. Children don't harvest the product 2. Children represent less than 30% of the harvesters of the product 3. Children represent between 30 – 70% of the harvesters of the product 4. Children represent more than 70% of the harvesters of the product 5. Only children harvest the product 6. Do not know (user group not present) 								
3.19	 Are[user group] further processing [product] before use or selling? 1. Yes 2. Sometimes / some people in the user group 3. No 4. Do not know (user group not present) 								
3.20	 Ask only if product is processed ('yes'/'sometimes' in Q 3.19) in the user group Who is doing the processing of [product] among [user group]? 1. Only men process the product 2. Women do less than 30% of the processing 3. Women do between 30 - 70% of the processing 4. Women do more than 70% of the processing 5. Only women process the product 6. Do not know (user group not present) 								

Produc	ts and user groups (columns continue from previous page)	Α		В	(0	D		E		F	G
3.21	Who are usually making decisions on[product]											
	among[user group]?											
	1. Men only 4. Women mostly											
	2. Men mostly 5. Women only											
	3. Jointly 6. Don't know											
3.22	If sold, where do the [user group] sell[product]											
	1. Homestead											
Multiple	2. Roadside within community											
choice	3. Other place within community (icl. community market)											
possible	4. Boma / Township											
	5. Within district											
	6. Within province											
	 Outside province, please specify 											
	8. Outside the country (cross-border trade)											
	9. Other, specify											
	10. Do not know (e.g. user group not present)											
Ask 3.2.	3 and 3.24 in all scenarios											
3.23	In your opinion, what other benefits does the near-by forest, woo	oded ar	ea or	trees p	provid	e	Ra	nk 1		Rank	2	Rank 3
	apart from the products harvested? (Rank 1-3)											
	1. None identified7. Climate regulation13.	Recrea	tion / ⁻	Tourism	า							
	2. Soil Protection 8. Disease control 14.	Aesthe	tic									
	3. Soil Fertility9. Windbreak15.4. Area for grazing animals10. Shade16.	Educat	ion / S	cientific	c studi	es						
	4. Area for grazing animals10. Shade16.5. Water Conservation11. Religious / Spiritual17.	Employ	ment									
	5. Water Conservation11. Religious / Spiritual17.6. Water Purification12. Cultural Heritage18.	Not ap	specity	y e (no fc	nract)							
3.24	Has the community (as a community or individuals) received any	Not ap		st serv								
5.24	direct benefits (in kind or in cash) related to forest services over t	he	1. Tou									
	past 12 months, and in relation to which services?	-		rbon se	auast	ation						
	1. yes, directly to households	-										
	2. no			ater cate								
	 yes, directly to community (e.g., development project) 		4. Bio	odiversit	ty con	servatior	1					
	 yes, both to household and community 	Ī	5. Cor	mpensa	ation f	rom timb	oer co	mpany				
	4. yes, both to household and community	ľ	6. Coi	mpensa	ation f	rom min	ing co	mpany	,			
		-	7. Tre	e plant	ing/af	forestati	on	-				
		-		her, spe								
			5. 00	.er, spc	.ciry.							

FOREST	MANAGEMENT	
4.1	Has your community entered any formal agreement with government, organizations, programmes, etc. in the area of forest management in past 5 years? 1. Yes, with government 4. No 2. Yes, with NGO (name/type:) 5. Not aware 3. Yes, with other, specify	If 'no' or 'not aware' → go to Q 4.4
4.2	 What type of agreement? 1. JFM agreement 2. Public Private partnership agreement 3. Other:	
4.3	Overall, how would you say the existence of the initiative has affected the benefitsthat you get from the forest?1. Positively (explain)3. No effect5. Group differ in opinions (positive/negative)2. Negatively (explain)4. Do not know	
4.4	Has the community received any forestry-related external support (technical assistance, free inputs, etc.) from government, donors, NGOs, etc. over the past 12 months? 1. Yes 2. No 3. Do not know	
4.5	Are any members of the community involved in a group that organizes activities related to the management of the forest (i.e. firefighting, patrolling, tourism, tree planting etc.) 1. Yes 2. No 3. Do not know	If 'no' or 'do not know' → go to Q 4.8
4.6	 Who typically participate (in the group/activities indicated in 4.5)? 1. Only men participate 2. Women represent less than 30 % of the participants 3. Women represent between 30 - 70 % of the participants 4. Women represent more than 70 % of the participants 5. Only women participate 6. Do not know 	
4.7	 What type of activities does the group do? (Refer to the group indicated in 4.5) Planting of trees Cutting down undesired (competing) trees Protecting certain desired (patches of) trees in the forest to promote the natural 	

	 regeneration of these species Protecting areas of forest for particular environmental services, like water catchment Protecting areas of forest for particular beliefs / spiritual services Establishing clear use rights for a limited number of people to particular forest products (e.g., honey, trees) Extension/education about forest management Enacted bylaw (e.g., no bush burning in or near forest) Mapping/inventory forest resources (e.g. mapping forest products areas) Other, specify:
4.8	Is there any forest or woodland management plan in place? 1. Yes, formal 2. Yes, traditional 3. Yes, other

RULES/LE	GISLATION AWARENESS AND COMPLIANCE	
5.1	Are there <u>customary</u> rules regulating forest use by members of the community? <i>(If any rules, record what kind of rules exist.)</i> 1 yes, clear rules exist 2 yes, but vague/unclear 3 none/very few 4 Not aware	If no customary rules, \rightarrow go to Q 5.3
5.2	Are the <u>customary</u> rules regarding forest use respected by the community members? 1 yes, by everyone 2 yes, to a certain extent or by some community members 3 no/very little 4 no particular rules exist 5 Not aware	
5.3	 Is there a forest area that is specifically conserved/protected by the community members? 1. Yes, for spiritual, ceremonial or graveyard purposes 2. Yes, for collection of traditional medicine or other specific collection purposes 3. Yes, for environmental or production sustainability reasons 4. Yes, for other reasons, specify 	

	5. No, community is not specifically protecting any area	
	6. Not known	
5.4	Are there government rules that regulate forest use?	
	1 yes, clear rules exist	
	2 yes, but vague/unclear	
	3 none/very few	If no \rightarrow go to Q 6.1
	4 Not aware	
5.5	Are the government rules respected by the community members?	
	1 yes, by everyone	
	2 yes, to a certain extent or by some community members	
	3 no/very little	
	4 no particular rules exist	
	5 not aware	

DEMAN	D FOR FOREST PRODUCTS (BUYING & BARTERING)						
6.1	Do you buy / acquire through bartering any wood or non-wood forest products? 1. Yes 2. No	If 'no',	end the inter	view and the	ank the grou	up.	
6.2	Which products? (Code A) Multiple options possible						
6.3	Of those forest products that are bought or acquired through bartering, which are the most important ones for you? (Code A) Rank 1-5 most important ones						
6.4	Mostly, where do you buy (/exchange) the product (location)? (Code H) Multiple options possible						
6.5	Who are the main sellers (barterers) of the product? (Codes L)						
6.6	Where do the sellers (barterers) of the product usually come from (locations) (<i>Codes J</i>)						
6.7	Where do the products usually come from? (Code P)						

Thank you very much for participating in this interview. We appreciate your time and effort.

APPENDIX III: HOUSEHOLD QUESTIONNAIRE AND INDIVIDUAL QUESTIONNAIRES

Strictly confidential

Book____of____





Food and Agriculture Organization of the United Nations

Forest Livelihood and Economic Survey 2014

HOUSEHOLD QUESTIONNAIRE

AREA IDENTIFICATION PARTICULARS	CODE NUMBER
1.1 STRATUM	
1.2 CLUSTER	
1.3 PROVINCE NAME:	
1.4 DISTRICT NAME:	
1.5 CONSTITUENCY NAME:	
1.6 WARD NAME:	
1.7 REGION: (1=rural 2=urban)	
1.8 CSA NUMBER:	
1.9 SEA NUMBER	
1.10 CHIEF / CHIEFTAINESS' AREA:	
1.11 VILLAGE/LOCALITY NAME:	
1.12 HH CATEGORY	
1.13 HOUSEHOLD SERIAL NUMBER:	
1.14 NAME OF THE HOUSEHOLD HEAD:	
1.15 NAME OF THE RESPONDENT (IF NOT THE HH HEAD):	
1.16 CONTACT HOUSEHOLD, TELEPHONE NO.:	
GPS COORDINATES: 1.17 Latitude (S):	e (E):

1.19 SUPERVISOR'S NAME:	
1.20 ENUMERATOR'S NAME:	
1.21 DATE(S) OF INTERVIEW://///)
1.24 RESPONSE STATUS: (1=Completed, 2=Refused, 3=Moved out of SEA, 4=Non-contact, 5=HH dissolved)	

My name is _______. I am working at the Central Statistical Office of the Government of Zambia, and we are conducting a Forest Livelihood and Economic Survey together with the Ministry of Lands, Natural Resources and Environmental Protection as well as the Food and Agriculture Organization of the United Nations. The survey seeks information about forest product use and forest related livelihoods, and I would like to ask you questions on these issues. Some of the questions are about the activities of the household, some will be asked from individual household members.

The questions do not have 'right' or 'wrong' answers and we ask you to answer each question based on your opinion and best knowledge. Everything you say will be kept confidential and no names of any respondent will ever appear in any of the survey reports. The Government of Zambia will only use aggregated information where no individual answers are pointed out.

Your participation will have no bearing on whether you receive any assistance in the future. There are no costs to you for participating in this survey, and you will not be paid for participation. However, your responses will help the Government of Zambia and Food and Agriculture Organization to develop a better understanding of forest livelihoods and forest product demand in Zambia.

This interview should take about one to one and a half hours to complete. Are you willing to go ahead?

SECTION 2. HOUSEHOLD COMPOSITION

Note: Only count persons who usually live with this household. Start with the head of the household and include visitors who have lived with the household for six months or more. Include usual members, who are away visiting, in hospital, at boarding schools or college or university, etc.

PID	2.1 Name	2.2 Relationship	2.3 Year	2.4	2.5 Marital	2.6 Can	2.7 What is the highest	2.8
		to the head of	born	Sex	status	read and	education level obtained	Respondent
		the household?		Male1	Only for those	write?	by?	
		Spouse02 Own Child03		Female2	12 years or	Only for the	Only for the head of	Main respondent to HH questionnaire1
		Step Child04 Adopted Child05			above	head of	household, spouse and	Respondent to the
		Grand Child06 Brother/Sister07				household,	respondent	individual section (man)2
		Cousin08 Niece/Nephew09			Never Married1 Married2	spouse and	Did not attend school01 Grade 1 – 402	Respondent to the
		Son/Daughter-In-Law 10 Brother/Sister-In Law.11			Separated3 Divorced4	respondent	Grade 5 – 703 Grade 8 – 904	individual section (woman)3
		Parent12 Parent-In-Law			Widowed5 Co-Habiting6	Yes1 No2	Grade 10 – 1205 GCE (O'Level)06	(woman)
		Other Relative14 Maid/Nanny/House-					Certificate07 Diploma08	
		Servant15 Non-Relative16					Degree09 Master's Degree10 Doctoral Degree11	
1		01 (Head)						
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13		<u> </u>						
					1. Bemba		5. Nyanja	
	2.9 What is the ethnic group of the household?						6. Lunda	
	(If mixed, mark all that apply)						7. Kaonde	
					4. Lozi		8. Other (specify)	

PID	2.1 Name	H's WHERE THERE ARE MOR 2.2 Relationship	2.3	2.4	2.5 Marital	2.6 Can	2.7 What is the	2.8
FID	Z.I Name	to the head of	Year	Sex	status	read?	highest education	Respondent
		the household?	born	JEX	Only for those	Only for the	level obtained by?	Respondent
		Spouse	born	Male1 Female2	12 years or	head of	Only for the head of	Main respondent to
		Own Child 03		. childrenii 2	above	household,	household, spouse and	HH questionnaire1
		Step Child04 Adopted Child05 Grand Child05				spouse and	respondent	Respondent to the individual section
		Brother/Sister07 Cousin08			Never Married1	respondent	Did not attend school 01	(man)2
		Niece/Nephew09 Son/Daughter-In-Law 10			Married2 Separated3	Yes1	Grade 1 – 402 Grade 5 – 703 Grade 8 – 904	Respondent to the individual section
		Brother/Šister-In Law.11 Parent12			Divorced4 Widowed5	No2	Grade 8 – 9	(woman)3
		Parent-In-Law13 Other Relative14			Co-Habiting6		Certificate07 Diploma08	
		Maid/Nanny/House- Servant15					Degree	
		Non-Relative16					Master's Degree10 Doctoral Degree11	
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24 25								
25								
20								
27								
28 29								
30								
30								
31								
32								
55								

SECTI	ON 3. HOUSING CHARACTERIS	STICS AND HOUSEHOLD A	SSETS	
No.	QUESTION	CATEGORY	AND CODE	CODE
3.1	What kind of dwelling does your household live in?	Traditional Hut1 Improved Traditional House2 Detached House3	House attached to shop, etc9 Hostel10 Non-Residential Building (e.g. School	
	(OBSERVE)	Flat/Apartment/Multi-Unit4 Semi-Detached House5 Servants Quarters6 Guest Wing7 Cottage8	classroom, etc)	
3.2	What kind of materials		ROOF	
	is/are the building(s) of this dwelling made of? (OBSERVE)	Asbestos Sheets	Grass/Straw/Thatch5 Concrete6 Wood7 Other (Specify)8	
	Note: If a multi-storey/unit building record building materials of the outer roof (roof top) and outer wall.	Pan Brick1 Concrete Brick2 Mud Brick3 Burnt Brick4 Pole5 Pole and Dagga6 Mud7 Grass/Straw	VALLS Iron Sheets	
		(C) FL Concrete only1 Covered Concrete2 Mud3	Wood only4 Other (Specify)5	

3.3 H	low many (ITEM)s does	your household ov	wn? (Do no	ot count permanently b	roken items)
No.	READ OUT			READ OUT	
	ITEMS	QUANTITY	No.	ITEMS	QUANTITY
1	Cattle		10	Plough	
2	Goat		11	Wheel barrow	
3	Sheep		12	Sledge	
4	Pig		13	Oxcart	
5	Poultry		14	Bicycle	
6	Donkeys/horses		15	Motor vehicle	
7	Radio		16	Tractor	
8	TV		17	Canoe	
9	Cell phone		18	Boat	

	at are the <u>REGULAR</u> (i.e. not one-time events) household activities contributing to household		Note: Indicate by marking appropriate checkboxes. Multiple options possible.			
	velihoods (includes income activities and HH's own consumption/use of food and non-food items)? =yes, 2=no		4.2			
4.2 Wh	o in the household are involved in these activities?	4.1	a.Men	b.Women	c.Children	
1.	Crop production				ļ	
2.	Vegetable gardening					
3.	Fruit trees					
4.	Livestock					
5.	Aquaculture/Fish farming					
6.	Fishing					
7.	Hunting					
8.	Processing of agricultural products for sale or home consumption (crop, livestock, fish)					
9.	Collection/harvesting of wood products (e.g. timber, poles, etc.)					
10.	Collection of fuel wood					
11.	Production of charcoal					
12.	Collection/harvesting of non-wood food forest products (e.g. fruit, mushrooms)					
13.	Collection/harvesting of non-wood forest products (other than food, e.g. rattan)					
14.	Processing of wood products (e.g. for furniture)					
15.	Processing of non-wood forest products (food products)					
16.	Processing of non-wood forest products (other than food)					
17.	Tree nurseries					
18.	Handicraft					
19.	Brick moulding					
20.	Own business (e.g. livelihood and income generation provided by trade in goods or services)					
21.	Employment in forestry sector (work in options 9-16 for payment)					
22.	Employment in agricultural sector (work in options 1-6, 8 for payment)					
23.	Employment (wage/salary from working e.g. as a mechanic, teacher, government officer, etc.)					
24.	Tourism (income generated from tourism or activities related to recreation)					
25.	Environmental services (e.g. income from carbon projects, forest conservation, etc.)					
26.	Mining (livelihood and income generation provided by mining activities)					
27.	Other (please specify)					

SECT	ION 5. ACCESS TO AGRICUL	TURAL AND FOREST LAND AND	JSER I	RIGHTS						
5.1	How much land does yo	ur HH have in total? (Excluding la	d ren	ted out)			Lima (if z	ero, go to 5.14.1)		
5.2	How much of that land	is in fallow? (Not currently used for	cultivo	ation)				Lima		
5.3	How much land is used	specifically for growing trees (pla	nted	or natural fores	t or nursery)?			Lima		
	(Excluding fallow area and	areas used for fruit trees and agrofo	restry)							
5.4	How much land is used	for agricultural cultivation? (Not)	ncludi	ng fallow)				Lima		
					f zero, ask 5.6 and g					
5.5		? Disaggregate the total cultivat	ed are	a. (Lima)		a. Men'	'sLima b. Wo	men'sLima		
		erms of who makes the key decisions					C	. JointLima		
5.6	•	st/nursery and cultivated agricul		•	•			Lima		
		er land uses? (e.g. built-up areas ar	d past	ures) (specify lan	d use)	Specification	n:			
	t are your HH's main agricu	•		1	1					
	lain crops (code N) (mark N/A									
	rea of each crop (Lima) (area									
	•	tion? (Code B, multiple options poss	· ·							
Whic	ch cropping systems does ye	our HH apply and what is the size	of ea	ch type? (can b	e overlapping)		I	- 1		
	Cropping system (Code O)									
	Area used for each croppin	g system (Lima)								
<u> </u>	s can overlap)									
Land	rights (refer to the land ind	icated in Q 5.4)								
	a) men's land	5.12.1 How much of your HH's			holding officially	-	ally recognized			
	b) women's land	cultivated land (Q 5.4) is on?		state or custor	mary law? (multiple o	ptions possible, mark	5.12.3 Who hol	ds the rights*?		
	c) joint land (see 5.5)	(Lima) (applies also to rented land)	all that apply) Yes, title de	eed = 1, Yes, from the chi	ef = 2, No = 3	(Code G) *Whose nam	ne is on the document		
Α.	Customary land	а.	а.				а.			
		b.	b.				b.			
		С.	с.				С.			
В.	State land (including	te land (including a.					а.			
	leased land from state)	b.				b.				
	C. C. C.									
		Ask 5.12.4 only if the ho		d is located near p	protected area / G	MA				
		ultivated land (Q 5.4) is in? (Lir	na)							
C.	Protected area									
D.	Game Management area									

5.13.1	Is your HH renting any of the land alr	eady mentioned as being cultivated (Q		5.13.2 Size of land rer	nted			
	5.4) (i.e. that which is not your own)	? Yes=1, No=2				Lima		
5.14.1	Does your HH rent out any land? Yes=	=1, No=2		5.14.2 Size of land rer	nted out			
						Lima		
5.15	Did your HH's total land used for cult	ivation increase or decrease in the last 5						
	years? Increase=1 , No change=2 , Decrea	ase= 3, Do not know= 4						
5.16	Ask only if the HH indicated in Q 3.3 that t	hey have cattle, sheep, goats, donkeys or horses	s. If they had					
	no such animals, mark '3-no need to ask'.							
	Do the livestock graze/forage in woo	ded land? 1= Yes, 2=No 3=No need to ask						
5.17	Ask only if the HH is collecting forest	1.On my own land						
	products (Q4.1)	(i.e. part of my home-stay or cultivated land t	o which I have	customary or				
	In which land do the HH members	governmentally recognized rights: verbal per	mission, letter	from the chief or title deed)				
	collect the wood and non-wood	2. Outside own land on customary land						
	forest products? (Multiple choices)	3. Outside own land on state land						
		4. Outside own land on land which is on l	ease					
		5. Other places. Specify						
5.18	Has the distance to the area in which	you are collecting forest products changed	during the l	ast 5 years?				
	1= Increase, 2= No change, 4= Decrease, 4= Do not know							

6.1	Did the HH cut any trees during the past 12 months?			
0.1	Yes, cleared area=1 Yes, only selective cutting = $2 No=3$ If 'no', go to Q.6.9. If only selective cutting, go to Q6.7			
6.2	Ask only if cleared an area (option 1 in 6.1)			Lima
•	How much forest was cleared?			
6.3	What was the cleared land used for after clearing? Codes: cropping=1; tree plantation=2; livestock=3; infrastructure/settlements=4; to	1		
	produce ash for fertilizer=5, not used=6, left to regenerate (e.g. after charcoal production)=7, other=8, please specify	2		
	(Rank 1-3)	3		
6.4	Ask only if used for crops (code '1' in Q 6.3.)	1		
0.4	Which main crops were grown? (Code N) (Rank 1-3)			
		3		
6.5	What type of forest did your HH clear? (Multiple options) (Primary natural forest=1; Forest plantation=2; Secondary forest=3; Other= 4, specify)			
6.6	Ask only if secondary forest (code 3 in Q 6.5.):			
	How many years since the area was previously cleared? (how long did the forest/trees grow in between)			
	1-5 years=1, 6-10 years=2, 11-20 years=3, more than 20 years=4, Do not know=5			
6.7	Where did you cut the trees? Codes: On land to which HH already have rights=1; In a new area on customary land, not previously used or			
	owned by HH=2; In protected areas not previously used or owned by HH=3, In GMA not previously used or owned by HH=4; On other state land			
	(not including protected area or GMA)=5; Outside HH land on land which is on lease=6; Other = 7, specify (multiple choices possible)			
6.8	How far from the house were the trees cut? (distance in kilometres and in time)	a	kmb	min.
6.9	Looking 5 years back – including the last 12 months – has the HH cut any trees?			
	Yes, cleared area=1 Yes, only selective cutting = 2 No=3 If 'no' or 'only selective cutting', go to 6.11.			
6.10	Ask only if have cleared forest in last 5 years (option 1 in Q 6.9)			Lima
	How large an area has the HH cleared? Note: This should include the area reported in Q. 6.2			
6.11	Did the HH during the last 5 years allow any cropland to re-grow into forest (including fallow)? Yes = 1, No=2 If 'no', go to 6.14			
6.12	During the last 5 years, how much cropland the HH allowed to re-grow into forest?			Lima
6.13	How did the forest grow back? <i>Sprouting from stumps=1, Natural regeneration by seedlings=2, Planting=3, Other=4, specify (multiple options)</i>			
6.14	Did your HH plant any trees during the last 5 years? Yes=1, No=2 (if code '3' in Q.6.13, the answer is 'Yes') No \rightarrow go to section 7			
6.15	Ask only if yes, (Q.6.14) How many trees did you plant? (including any trees, e.g. also fruit trees)			
6.16	How large an area did you plant?			Lima
6.17	Who planted the trees? (Code B)			

18 Person planting trees (PID for current HF members, 99=other/ not anymore in HH)	a)	Person 1:	b)	Person 2:	c) Person 3:			
Purposes	6.18.a) Rank 1-3	6.19a) Main species	6.18 b) Rank 1-3	6.19b) Main species	6.18 c) Rank 1-3	6.19c) Main species		
1. Fuel wood for domestic use								
2. Fuel wood for sale								
3. Fodder for own use								
4. Fodder for sale								
5. Timber/poles for own use								
6. Timber/poles for sale								
7. For production of edible tree products (e.g. fruits) for own use								
8. For production of edible tree products (e.g. fruits) for sale								
9. Other products for own use								
10. Other products for sale								
11. For shade								
12. For wind protection								
13. Carbon sequestration								
14. Other environmental services								
15. Land demarcation								
16. To increase the value of my land								
17. Agroforestry								
 To allow my children and/or grandchildren to see these trees 								
19. Don't know (e.g. planted the trees because another HH member asked to)								
20. Person not available to answer								
21. Other purpose (please specify)								

	SECTION 7. COLLECTION OF WOOD AND NON-WOOD FOREST PRODUCTS (<i>Only ask, if HH had said they collect forest products (If 'yes' to option 9, 10, 11, 12 or 13 in Q 4.1.). Many products have maybe already been mentioned during interview. Avoid repeating questions, but seek for elaboration and additional information</i>															
13 in Q		e already	/ been m	entioned	during in	terview.					-		and addi	tional inj	formatio	า
	Please specify all the		Wood and non-wood forest products													
	wood and non-wood															
7.1	forest products collected															
	regularly during the last															
	12 months by HH															
	members (Code A)															
	Which HH members															
7.2	primarily collect the															
	products? (Code B)															
	What methods are mainly															
7.3	used in collecting															
7.5	/harvesting the product?															
	(Code C) (Multiple choices)		1										1			
	Where do you collect the	Rank 1	Rank 2	Rank 3	Rank 1	Rank 2	Rank 3	Rank 1	Rank 2	Rank 3	Rank 1	Rank 2	Rank 3	Rank 1	Rank 2	Rank 3
	product (land use	1	2	3	1	2	3	1	2	3	1	2	3	1	2	5
7.4	category)? (Code D) Note: Rank three most frequent sources – leave blank if not applicable, i.e. if only collected in forest, leave other ranking options empty)															
	What quantities has the						•			•						
	HH in total collected															
	during the last 12															
7.5	 months? Note for enumerator: Ask explorative and supportive questions: Collection period during the year? Collection frequency? Quantity collected each time? How much sold, used etc. 															
	Specify unit See table of units. Note: pre-determine quantification															
7.6	units and size of units (meda) from visiting local market prior to conducting interview															

7.7	For what are the different wood and non-wood forest products used? (%) Indicate proportions of the total quantity collected during the last 12 months.	Domestic	Sale	Other	Domestic	Sale	Bartering	Other	Domestic	Sale	Bartering	Other	Domestic	Sale	Bartering	Other	Domestic	Sale	Bartering	Other
7.8	Other: What is the usual mode of transport when visiting the area in which collection of forest																			
7.9.1	products usually takes place? _(Code E, multiple choice possible) How far is it to the site in which you usually collect																			
7.9.2	the product? <i>Time (minutes)</i> How far is it to the site in which you usually collect the product? <i>Distance (km)</i> Who is transporting																			
7.10	product away from site? (multiple options) HH members=1, Buyers=2, Others, specify=3 What is the mode of																			
7.11	transporting the product <u>away</u> from the collection site? _(Code E, multiple choice possible) Has the availability of the																			
7.12	product changed during the last 5 years? Increased = 1; No change=2; Decline=3, Do not know=4 Ask only if availability declined: What have you done in	Rank 1	Rank 2	Rank 3	Rank 1	Rank 2	k R	tank 3	Rank 1	Ra 2		Rank 3	Rank 1		ank 2	Rank 3	Rank 1		ank 2	Rank 3
7.13	what have you done in response? (Code F) (rank the three most important strategies per product)	-						-	-		-	-	-		-	<u> </u>	-		-	-

SECTION 8. ACTIVITIES CONTRIBUTING TO HH INCOME AND HH CONSUMPTION						
General sources of HH income						
Options Note: Cross-check with answers provided in HH livelihood and forest product collection sections (Q. 4.1, 7.1 and 7.7)	8.1.1 During the last 12 months, what have been the sources of income for the HH? yes=1, no=2, don't know=3	8.1.2 Proportion of income from each identified source % measured with 10 stones				
1. Crop production 2. Vegetable gardening 3. Fruit trees 4. Livestock 5. Aquaculture/Fish farming						
6. Fishing 7. Hunting 8. Processing of agricultural products for sale (crop, livestock, fish) 9. Collection/harvesting of wood products (e.g. timber, poles, etc.) 10. Collection of fuel wood						
11. Production of charcoal 12. Collection/harvesting of non-wood food forest products (e.g. fruit) 13. Collection/harvesting of non-wood forest products (other than food, e.g. rattan, fibres) 14. Processing of wood products (e.g. for furniture)						
15. Processing of non-wood forest products (food products) 16. Processing of non-wood forest products (other than food) 17. Tree nurseries 18. Handicraft						
19. Brick moulding 20. Own business (e.g. trade in goods / services) 21. Employment in forestry sector (work in options 9-16 for payment) 22. Employment in agricultural sector (work in options 1-6, 8 for payment)						
 23. Employment (whether in private or public sector) 24. Tourism (income generated from tourism / recreational activities) 25. Environmental services (e.g. income from forest conservation) 26. Mining (income generation provided by mining activities) 						
26. Mining (income generation provided by mining activities) 27. Remittances 28. Social security (e.g. pension) 29. Other, specify						

Contribution of wood and non-wood forest products to HH income		
Options Note: Take point of departure from answers provided in section 7: Collection of wood and non-wood forest products (Q7.1 and 7.7)	Enumerator to mark: 8.2.1 During the last 12 months which wood and non- wood forest products have contributed to HH income?	8.2.2 Rank (1-5) the most important wood and non-wood forest products to HH income (of those identified in Q 8.2.1)
	yes=1, no=2, do not know=3	
1. Industrial wood		
2. Fuel wood		
3. Charcoal		
4. Wood for wood carvings		
5. Wood for poles		
6. Fruits, nuts, seeds, roots, berries, etc.		
7. Mushrooms		
8. Fodder		
9. Rattan		
10. Plant medicines		
11. Herbs and spices		
12. Dying / tanning		
13. Seeds (for regeneration purposes)		
14. Fibres (for rope etc.)		
15. Other plant products		
16. Wildlife (including bush meat)		
17. Beekeeping activities / honey collection		
18. Caterpillar		
19. Other, specify		

Note: Cross-check with answers provided in HH livelihood and forest product collection sections (Q. 4.1, 7.1 and 7.7)	8.3.1 During the last 12 months, what have been the sources for HH' own consumption? (i.e. non- income based activities)	8.3.2 Importance: Proportion from each source for household food consumption % measured with 10 stones. Note: Compare only sources of food. Total food consumption = 100 %
1. Crop production	yes=1 , no=2, do not know=3	
2. Vegetable gardening		
3. Fruit trees		
4. Livestock		
5. Aquaculture/Fish farming		
6. Fishing		
7. Hunting		
 Processing of agricultural products for home consumption (crop, livestock, fish) 		
 Collection/harvesting of wood products (timber, poles, etc.) 		
10. Collection of fuel wood		
11. Production of charcoal		
 Collection/harvesting of non-wood food forest products (e.g. fruit) 		
 Collection/harvesting of non-wood forest products (other than food, e.g. rattan) 		
14. Processing of wood products (e.g. for furniture)		
15. Processing of non-wood forest products (food)		
 Processing non-wood forest products (other than food, e.g. basket weaving) 		
17. Other, specify		
18. Food acquired by buying/bartering/gift/aid		

SECTION 9. SALE, TRADE AND MARKETING OF WOOD AND NON-WOOD FOREST PRODUCTS

Note: Enumerator should take point of departure in answers received for Q. 7.7 (if sold or bartered forest products they had collected). If no products are sold, go to Q. 9.15.

Selling	of wood and non-wood forest products	
		Wood and non-wood forest products (copy from section 7)
9.1	What price per unit do you receive from selling the product? (ZMW)	
9.2	Specify unit	
9.3	What was the total income derived during the last 12 months from selling the product?Note: cross-check by adding price per unit with quantity collected (Q. 7.5) and sold (Q. 7.7).	
9.4	Which member of the HH is generally making the decision on selling the product? (<i>Code G</i>)	
9.5	Which member of the HH is primarily involved in the sale? (Code B)	
9.6	Where does the sale of the product primarily take place (location)? (Code H)	
9.7	What is the usual mode of transport to the point of sale? (Code E)	
9.8	How far is it to the point of sale? (time in minutes)	
9.9	How far is it to the point of sale? (distance in kilometres)	
9.10	In what form is the product usually sold? Raw=1, Semi-Processed=2, Processed=3	
9.11	To whom is the product usually sold? (Codes I)	
9.12	Where do the buyers of the product usually come from (locations) (Codes J)	
9.13	How is the product sold (through which channel)? Individuals=1, Resource User Group=2, Civil society organizations=3, Other=4 (specify)	
9.14	During the last 12 months, who in the HH has typically decided on the use of income derived from selling the product? (Code G)	

Barte	ring of wood and non-wood forest products (If no products are bartered, go	to Q. 10.1)
		Wood and non-wood forest products (copy from section 7)
9.15	What was received in exchange of the product when bartered? (Code K) (Multiple options)	
9.16	Which member of HH generally makes the decision on bartering of the product? (Code G)	
9.17	Which member of HH is primarily involved in the bartering? (Code B)	
9.18	Mostly, where does the bartering of the product take place (location)? (Code H)	
9.19	What is the usual mode of transport to the exchange location? (Code E)	
9.20	How far is it to the exchange location? (time in minutes)	
9.21	How far is it to the exchange location? (distance in kilometres)	
9.22	In what form is the product usually bartered? <i>Raw=1</i> , <i>Semi-</i> <i>Processed=2</i> , <i>Processed=3</i>	
9.23	Who is usually the counterpart in bartering of the product? (Code I)	
9.24	Where do the counterparts usually come from (locations)? (Code J)	
9.25	How are the forest products bartered (through which channel)? Individuals=1, Resource User Group=2, Civil society organizations=3, Other=4 (specify)	

SECTION 10. FOOD SECURITY, CRISIS AND COPING STRATEGIES

Options	10.1 During the 2013-2014 <u>rainy</u> season, which sources did the HH's food mainly come from? <i>Mark % (measured with 10 stones)</i>
1. Cultivated food by HH	
2. Livestock held by HH	
3. Food purchased from the market/store or acquired through bartering	
4. Food collected in the forest (mushroom, fruits, bush meat, etc.)	
5. Food received as gift or as food aid	
6. Other (specify):	

Options	10.2 During the 2014 <u>cold</u> season, which sources did the HH's food mainly come from? <i>Mark % (measured with 10 stones)</i>
1. Cultivated food by HH	
2. Livestock held by HH	
3. Food purchased from the market/store or acquired through bartering	
4. Food collected in the forest (mushroom, fruits, bush meat, etc.)	
5. Food received as gift or as food aid	
6. Other (specify):	

Options	10.3 During the 2013 <u>dry</u> season, which sources did the HH's food mainly come from? <i>Mark % (measured with 10 stones)</i>
1. Cultivated food by HH	
2. Livestock held by HH	
3. Food purchased from the market/store or acquired through bartering	
4. Food collected in the forest (mushroom, fruits, bush meat, etc.)	
5. Food received as gift or as food aid	
6. Other (specify):	

	CRISIS EVENTS				
		10.4.1 Has the household faced any		did you cope	
		major crisis/unexpectedly large		ank max 3) (C	-
		expenditures which has led to income or	Rank 1	Rank 2	Rank 3
		food shortfalls during the past 12 months			
	Events	(and if so, how severe)? 1=no crisis 2= yes, moderate crisis; 3=yes			
		severe crisis*			
1	Serious crop failure				
2	Serious food shortage				
3	Serious illness in family				
	(productive age-group adult unable to work for more than				
	one month during past 12 months, due to illness, or to				
	taking care of ill person; or high medical costs)				
4	Death of productive age-group adult				
5	Land loss (expropriation, etc.)				
6	Major livestock loss (theft, drought, etc.)				
7	Other major asset loss (fire, theft, flood, etc.)				
8	Lost wage employment				
9	Wedding or other costly social events				
10	Payment for sale of HH products arrive later than expected				
11	Delayed income from forest products				
12	Fine from government agency (e.g. environmental agency,				
	FD, etc.)				
13	Other, specify				
	: * Severe crisis is defined as death or significant loss of income, app		1		
10.5			Rar	k 2	Rank 3
	What were the most important forest products that were	e collected for HH			
	consumption? (Code A) (rank 1-3)				<u> </u>
10.6			Rar	к 2	Rank 3
	What were the most important forest products that were income? (Code A) (rank 1-3)	e collected as <u>source of</u>			

	IN 11. BUYING AND BARTERING OF WOOD AND NON-WOOD e extent possible, ask to the person involved in buying/bartering		ow best the am	ounts and prices)	
BUYIN	G OF FOREST PRODUCTS				
11.1	Did the HH buy any wood or non-wood forest products during the last 12 months? Yes=1, No=2 If 'no', go to Q. 11.15				
11.2	Ask only if had bought forest products ('yes' in Q11.1): Which products were bought? (Code A)				
11.3	What was the approximate price paid per unit bought? (<i>ZMW</i>)				
11.4	Specify unit				
11.5	What was the quantity bought during the past 12 months?				
11.6	In what form did you buy the product? Raw=1, Semi-Processed=2, Processed=3				
11.7	During the last 12 months, who generally made the decision on buying the product? (<i>Code G</i>)				
11.8	Who is primarily involved in buying the product? (Code B)				
11.9	Mostly, where do you buy the product (location)? (Code H)				
11.10	What is the usual mode of transport to the location where the HH usually buys the product? (<i>Code E</i>)				
11.11	How far is it to the location where HH mostly buys the product? (time in minutes)				
11.12	How far is it to the location where HH mostly buys the product? (distance in kilometres)				
11.13	Who are the main sellers of the product? (Codes L)				
11.14	Where do the sellers of the product usually come from (locations) (Codes J)				

ACQUIF	RE OF WOOD AND NON-WOOD FOREST PRODUCTS THROUGH	BARTERING		
	Did the HH acquire any wood or non-wood forest products			
11.15	through bartering during the last 12 months? Yes=1, No=2			
	Note: if 'No', go to Q.12.1		 	
	Ask only if 'yes' in 11.15:			
11.16	Which products were acquired?			
	(Code A)			
11.17	Specify unit (of the forest product acquired)?			
11.18	What did the HH give in exchange for a unit of forest			
11.10	product?			
11.19	What was the quantity acquired during the past 12			
11.19	months?			
11.20	In what form did you acquire the product?			
11.20	Raw=1, Semi-Processed=2, Processed=3			
11.21	During the last 12 months, who generally made the			
11.21	decision on acquiring the forest products? (Code G)			
11.22	Who is primarily involved in bartering for this type of			
11.22	product? (Code B)			
11.23	Mostly, where does the bartering take place (location)?			
11.25	(Code H)			
	What is the usual mode of transport to the location where			
11.24	the HH goes to barter the product? (Code E. If not			
	transported, mark N/A)			
11.25	How far is it to the location where the HH barters the			
11.25	product? (time in minutes)			
11.26	How far is it to the location where HH where the HH			
11.20	barters the product? (distance in kilometres)			
11.27	Who are the main suppliers (including those engaged in			
11.27	bartering) of the product? (Codes L)			
11.28	Where do the suppliers of the product usually come from			
11.20	(locations)? (Codes J)			

SECTION 12. ENERGY SOURCES AND UTILIZATION

Charcoal 12.1 Is charcoal utilized by the HH? Yes=1, No=2

No \rightarrow go to Q 12.5

12.2 On average, what is the quantity used per month?

12.3 Specify unit

12.4 How did you obtain charcoal?

Self produce=1, Buy it=2, Receive it as gift=3, Other=4 (specify) (multiple options possible) If bought, ensure that you have recorded the price paid per unit to Q. 11.3

Fuel wood		
12.5 Is fuel wood utilized by the HH? Yes=1, No=2 No \rightarrow go to Q	12.10	
12.6 On average, what is the quantity used per month?		
12.7 Specify unit		
12.8 How did you obtain fuel wood?		
Self produce/collect = 1, Buy it= 2, Receive it as gift=3, Other=4 (specify)	(multiple options possible)	
If not self-collected, go to 12.10		
Ask only if collected / produced by the HH	Hours: per (1=day, 2=week, 3=	month)
12.9 How much time do the household members spend for the		
collection? (including both travel and actual collection) (hours)	Mark 1 if was answared by a parson involved in s	alloction
Note! It is important that this question is asked from the person doing the	Mark 1, if was answered by a person involved in co	
collection (see answer to Q. 7.2)	Mark 2, if was answered by a person not involved	in collection.

Alternative energy sources				
		ch alternative energy sources ow for charcoal and fuel	Ask only for those energy sources they knew (in 12.10) 12.11 Are you using in the HH? Yes=1 No=2	Ask only if not used 12.12 What are the main reasons for not using? Too Expensive
1. Coal				Other(specify)9
2. Diesel				
3. Dung (animal)				
4. Electricity				
5. Gas				
6. Kerosene/paraffin				
7. Solar energy				
8. Other(specify)				
Energy efficient stoves	1			
12.13 Are you using an energy efficient Ask only if not using: 12.14 Why are you not using an energy stove? (multiple options possible) 1.23 Time end	efficient	Yes1 No2 Don't know3 Too Expensive1 Not available2 Don't know how to use3 More time-consuming4 Different preferences5 Cultural reasons6 Not aware	s interview. We appreciate you	

 13. INDIVIDUAL MODULE / MEN
 HH serial number: ______ Name of respondent: _____ PID (copy from main questionnaire): _____

Sources of income (individual)		
	13.1 During the last 12 months, what have been your sources of	13.2 Proportion of income from each identified source
	income? (yes=1, no=2, don't know=3)	% measured with 10 stones
1. Crop production		
2. Vegetable gardening		
3. Fruit trees		
4. Livestock		
5. Aquaculture/Fish farming		
6. Fishing		
7. Hunting		
8. Processing of agricultural products for sale (crop, livestock, fish)		
9. Collection/harvesting of wood products (e.g. timber, poles, etc.)		
10. Collection of fuel wood		
11. Production of charcoal		
12. Collection/harvesting of non-wood food forest products (e.g. fruit)		
13. Collection/harvesting of non-wood forest products (other than food, e.g. rattan, fibres)		
14. Processing of wood products (e.g. for furniture)		
15. Processing of non-wood forest products (food products)		
16. Processing of non-wood forest products (other than food)		
17. Tree nurseries		
18. Handicraft		
19. Brick moulding		
20. Own business (income generation provided by trade in goods or services)		
21. Employment in forestry sector (work in options 9-16 for payment)		
22. Employment in agricultural sector (work in options 1-6, 8 for payment)		
23. Other employment		
24. Tourism (income generated from tourism / recreational activities)		
25. Environmental services (e.g. income from forest conservation)		
26. Mining (income generation provided by mining activities)		
27. Remittances		
28. Social security (e.g. pension)		1
29. Other, specify		

Contribution of wood and non-	wood forest products	s to individual
income		
Options	13.3 During the last 12 months, which wood and non-wood forest products have contributed to your income?	13.4 Rank the most important wood and non- wood forest products to your income (of those identified in Q. 13.3) (<i>Rank 1-5</i>)
1. Industrial wood	yes=1, no=2, don't know=3	15.5) (Kunk 1-5)
2. Fuel wood		
3. Charcoal		
4. Wood for wood carvings		
5. Wood for poles		
5. Fruits, nuts, seeds, roots, berries,		
etc		
7. Mushrooms		
. Fodder		
. Rattan		
0. Plant medicines		
1. Herbs and spices		
2. Dying / tanning		
3. Seeds (for regeneration purposes)		
4. Fibres (for rope etc.)		
15. Other plant products		
6. Wildlife (including bushmeat)		
 Beekeeping activities/honey collection 		
18. Caterpillar		
19. Other (specify)		

Forest product collection (individual)																
 13.7 Please specify all the wood and non-wood forest products you collected regularly during the last 12 months? (Code A) Mark each product to a separate column. If person collected no forest products, mark N/A and end the interview. 13.8 What quantities have you collected during the last 12 months? 																
13.9 Specify the unit																
13.10 For what are the different wood and non-wood forest products used? <i>Indicate proportions in percentage of the total</i>	Domestic	Sale	Bartering	Other	Domestic	Sale	Bartering	Other	Domestic	Sale	Bartering	Other	Domestic	Sale	Bartering	Other
quantity you collected during the last 12 months.																
Forest product marketing (ask the following questions only for	the pro	oducts.	sold, a	ıs indic	atea	l in 13	3.10)				1	1				
13.11 Where does the sale of the product primarily take place (location)? (<i>Code H</i>)																
13.12 In what form is the product usually sold? <i>Raw=1, Semi-</i> <i>Processed=2, Processed=3</i>																
13.13 How is the product sold (through which channel)? Individuals=1, Resource User Group=2, Civil society organizations=3, Other=4 (specify)																
13.14 What price per unit did you get from selling the product? (<i>ZMW</i>)																
13.15 Specify unit																
13.16 What was the total income derived during the last 12 months from selling the product? <i>Note: cross-check by adding price per unit with quantity collected (Q.</i> <i>13.8) and sold (Q. 13.10).</i>																
13.17 During the last 12 months, who has typically decided on the use of this income? <i>respondent=0; other men in HH=1 jointly (m&w)=2 other women in HH=3 Other=4, specify</i>	1															

 14. INDIVIDUAL MODULE / WOMEN
 HH serial number: ______ Name of respondent: ______ PID (copy from main questionnaire): _____

Sources of income (individual)		
	14.1 During the last 12 months,	14.2 Proportion of income
	what have been your sources of	from each identified source
	income? (yes=1, no=2, don't know=3)	% measured with 10 stones
1. Crop production		
2. Vegetable gardening		
3. Fruit trees		
4. Livestock		
5. Aquaculture/Fish farming		
6. Fishing		
7. Hunting		
8. Processing of agricultural products for sale (crop, livestock, fish)		
9. Collection/harvesting of wood products (e.g. timber, poles, etc.)		
10. Collection of fuel wood		
11. Production of charcoal		
12. Collection/harvesting of non-wood food forest products (e.g. fruit)		
13. Collection/harvesting of non-wood forest products (other than food, e.g. rattan, fibres)		
14. Processing of wood products (e.g. for furniture)		
15. Processing of non-wood forest products (food products)		
16. Processing of non-wood forest products (other than food)		
17. Tree nurseries		
18. Handicraft		
19. Brick moulding		
20. Own business (income generation provided by trade in goods or services)		
21. Employment in forestry sector (work in options 9-16 for payment)		
22. Employment in agricultural sector (work in options 1-6, 8 for payment)		
23. Other employment		
24. Tourism (income generated from tourism / recreational activities)		
25. Environmental services (e.g. income from forest conservation)		
26. Mining (income generation provided by mining activities)		
27. Remittances		
28. Social security (e.g. pension)		
29. Other, specify		

Contribution of wood and non-	wood forest products	s to individual
ncome		
Options	14.3 During the last 12 months, which wood and non-wood forest products have contributed to	14.4 Rank the most important wood and non- wood forest products to your income (of those
	your income? yes=1, no=2, don't know=3	identified in Q. 14.3) (<i>Rank 1-5</i>)
1. Industrial wood		
2. Fuel wood		
3. Charcoal		
4. Wood for wood carvings		
5. Wood for poles		
. Fruits, nuts, seeds, roots, berries, etc		
7. Mushrooms		
8. Fodder		
9. Rattan		
0. Plant medicines		
1. Herbs and spices		
12. Dying / tanning		
13. Seeds (for regeneration purposes)		
14. Fibres (for rope etc.)		
15. Other plant products		
16. Wildlife (including bushmeat)		
17. Beekeeping activities/honey		
collection		
18. Caterpillar		
19. Other (specify)		

Forest product collection (individual)																
 14.7 Please specify all the wood and non-wood forest products you collected regularly during the last 12 months? (Code A) Mark each product to a separate column. If person collected no forest products, mark N/A and end the interview. 14.8 What quantities have you collected during the last 12 months? 																
14.9 Specify the unit																
14.10 For what are the different wood and non-wood forest products used? <i>Indicate proportions in percentage of the total</i>	Domestic	Sale	Bartering	Other	Domestic	Sale	Bartering	Other	Domestic	Sale	Bartering	Other	Domestic	Sale	Bartering	Other
quantity you collected during the last 12 months.																
Forest product marketing (ask the following questions only for the	he pro	oducts.	sold, a	ıs ind	icated	d in 14	4.10)				1					
14.11 Where does the sale of the product primarily take place (location)? (<i>Code H</i>)																
14.12 In what form is the product usually sold? <i>Raw=1, Semi-</i> <i>Processed=2, Processed=3</i>																
14.13 How is the product sold (through which channel)? Individuals=1, Resource User Group=2, Civil society organizations=3, Other=4 (specify)																
14.14 What price per unit did you get from selling the product? (<i>ZMW</i>)																
14.15 Specify unit																
14.16 What was the total income derived during the last 12 months from selling the product? <i>Note: cross-check by adding price per unit with quantity collected (Q.</i> <i>14.8) and sold (Q. 14.10).</i>																
14.17 During the last 12 months, who has typically decided on the use of this income? <i>respondent=0; other men in HH=1 jointly</i> (m&w)=2 <i>other women in HH=3 other=4, specify</i>																

APPENDIX IV: FLES CODES

Notes: It may help enumerators during the interviews if codes are incorporated into the relevant questionnaire forms. However, in order to keep forms simple, most codes are temporarily gathered in the tables below.

Code A (Forest products)	Code B (Who does)	Code C (Mode of	Code D (Land uses)	Code E (Mode of transport)
1. Industrial wood	(multiple options possible)	harvesting)	1. Primary forest (i.e.	1. By foot
2. Fuel wood	1. Men	1. Collecting by hand	older forest)	2. Oxcart
3. Charcoal	2. Women	2. Cutting down tree	2. Secondary forest (i.e.	3. Bicycle
4. Wood for wood carvings	3. Boys	3. Cutting down branch	regenerated forest)	4. Motorcycle
5. Wood for poles	4. Girls	4. Shaking the tree to make	3. Forest plantation	5. Car
6. Fruits, nuts, seeds, roots,	5. Hired labour	fruits drop	4. Grassland (dambos,	6. Truck
berries, etc.	6. Do not know	5. Up-rooting the entire	wetland, swamp)	7. Boat / canoe
7. Mushrooms		plant/tree	5. Bare land	8. Other
8. Fodder		6. Fire & smoking	6. Cultivated land	
9. Rattan		7. Other	7. Village, built-up area	
10. Plant medicines		(specify)	8. Other (specify)	
11. Herbs and spices				
12. Dying / tanning				
13. Seeds (for regeneration Code F (Coping decline in forest products)		Code G (Decision-making	Code H (Market places)	
purposes)	1. It did not influence the HH harvest of forest products		/ rights)	1. Homestead
14. Fibres (for rope etc.)	2. Increase collection time (incl. travelling to areas further		1. Men in HH	2. Roadside within community
15. Other plant products away)		2. Women in HH	3. Other place within community (incl.	
16. Wildlife (including bush	3. Buy the product from oth	er suppliers	3. HH jointly	community market)
meat)	4. Reduce harvesting of the product		4. Men outside HH	4. Boma / Township
17. Beekeeping activities	5. Stop harvesting of the product		5. Women outside HH	5. Within district
/honey collection	6. Substitute with other type of forest product		6. Other	6. Within province
18. Caterpillar	7. Substitute with agricultural products			7. Outside province, please specify
	8. Conserving standing trees			
19. Other	19. Other 9. Planting trees			8. Outside the country (cross-border
10. Restricting access/use of forest			trade)	
11.Other (specify)			9. Other	

Code I (Buyers)	Code J (Where do buyers	Code K (Received in exchange)	Code L (Sellers, including bartering)				
 Private consumers (individuals) Marketers Traders Associations / organizations Wholesalers/Bulky Buyers Others, specify 	 code J (where do buyers come from) 1. Within community 2. From Boma town 3. From within the district 4. From within province 5. Outside the province 6. Outside the country 7. Travelers/passers-by 	 Labour Food items Clothing Others, specify 	 Individual/private seller Marketers Traders Associations / organizations Wholesalers Others, specify 				
	8. Other, specify						

Cop	e M (coping strategies)	15.	Rented out land
		16.	Started new business
1.	Harvest more wood or non-wood forest products for HH consumption	17.	Changed to different type of livestock
2.	Harvest more wood or non-wood forest products for bartering or selling	18.	Harvested premature crops for HH consumption
3.	Harvest more agricultural products for HH consumption	19.	Harvested premature crops for bartering or selling
4.	Harvest more agricultural products for bartering or selling	20.	Changed cropping patterns or types of crops planted
5.	Spend cash savings	21.	Labour migration
6.	Sell assets (land, livestock, etc.)	22.	Member of household moved away
7.	Do extra casual labour work	23.	Household moved their house and/or fields to another site in the same
8.	Assistance from friends and relatives		village (e.g. due to flood)
9.	Assistance from NGO, community org., religious org. or similar	24.	Introducing irrigation
10.	Get loan from money lender, credit association, bank etc.	25.	Introduction of bee keeping
11.	Borrowed from elsewhere against future earnings	26.	Did nothing in particular
12.	Tried to reduce household spending	27.	Other, specify
13.	Reduced number of meals taken	= / •	, - <u>F</u> <i>J</i>
14.	Sold food that would otherwise be used for HH consumption		

Code	N (Current and recent crops								
	Options	Description/definition	Code						
	Food crops								
IS	Maize		1						
	Sorghum		2						
	Millet	Includes bulrush and finger millet	3						
	Paddy rice	In flooded areas also known as lowland rice	4						
	Upland rice	Not permanently flooded and previously forest has been cut	5						
	Sesame		6						
	Cowpeas		7						
	Soy beans		8						
duc	Beans		9						
pro	Groundnuts		10						
l sd	Bambara nuts		11						
crc	Sweet potatoes		12						
ual	Irish potatoes		13						
Annual crops products	Cassava		14						
	Sugar cane		15						
	Vegetables		16						
	Sunflower		17						
	Other annual food crop	To be specified	91						
	Non-food crops								
	Cotton		18						
	Tobacco		19						
	Other non-food annual	To be specified	92						
	crops	To be specified	92						
	Fruit trees								
	Mango trees		20						
	Guava trees		21						
	Citrus trees		22						
	Papaya trees		23						
	Avocado trees		24						
	Banana		25						
s	Other fruit trees	To be specified	93						
rop		Other perennial crops							
Perennial crops	Jatropa		26						
	Oil Palm		27						
	Cashew nut		28						
	Other perennial crops	To be specified	29						
		Agroforestry species							
	Acacia sp		29						
	Leucaena sp		30						
	Glyricidia sepium		31						
	Moringa		32						
	Faidherbia albida		33						
	Other agroforestry species	To be specified	95						

Code O (Cropping systems)		Description								
1.	Multiple cropping	Cultivation of two or more crops on the same field in a year. Sole or mixed crops are grown in sequence, simultaneously one after another, or with an overlapping period								
2.	Improved cultivars	From research, extension, private sector not from local participatory breeding								
3.	Crop rotation	Different crops are grown	in sequence, one after another in a field i	n unit t	ime e.g. rice-wheat annual rotati	on				
4.	Fallow	1 0 1	the land is kept bare and no crop is raise of to the soil in order to enable it to recup		usually between one or more m	ain crops. Conventionally thought				
5.	Monoculture	Growing of the same crop	year after year on a given piece of land							
6.	Mixed cropping		o crops in the same field at the same time out any definite planting/spacing pattern		1	st seeded together, or grown as a				
7.	Intercropping	u	ore crops on the same field, either simu ems refer to the cultivation of two or more		•					
8.	Mixed crop/livestock	Mixed crops with livestock								
9.	Agroforestry	Refers to land use systems and technologies in which woody perennials (trees) are deliberately raised with herbaceous plants, cultivated crops and/or animals on the same land								
		crops and/or animals on th	• • •		(,,,	<u>ı</u> ,				
10	Shifting cultivation	The growing of crops for	• • •		nating with a lengthy period of	-				
10	Shifting cultivation Not known	The growing of crops for	e same land a few years on selected and cleared plo		nating with a lengthy period of	-				
	Not known	The growing of crops for	e same land a few years on selected and cleared plo		nating with a lengthy period of	-				
11	Not known	The growing of crops for	e same land a few years on selected and cleared plo		nating with a lengthy period of	-				
11 12	Not known Other	The growing of crops for	e same land a few years on selected and cleared plo- uently shifts within an area that is otherw Code Q (Forest product units) 1. Small plate (akabale, kambale, kakeke,katiba)	ise cov 12.	Ox-cart load 1 m3 (5 logs of 36 cm diameter x 2 m long)	vegetative fallow when the soil is				
11 12	Not known Other (provinces)	The growing of crops for rested. Cultivation consequence 55. From abroad	e same land a few years on selected and cleared plot tently shifts within an area that is otherw Code Q (Forest product units) 1. Small plate (akabale, kambale, kakeke,katiba) 2. ka BP	12. 13. 14.	Ox-cart load 1 m3 (5 logs of 36 cm diameter x 2 m long) 500 g bottle	vegetative fallow when the soil is Language abbreviations				
11 12 Code P 1.	Not known Other (provinces) Central	The growing of crops for rested. Cultivation consequ	e same land a few years on selected and cleared plot tently shifts within an area that is otherw Code Q (Forest product units) 1. Small plate (akabale, kambale, kakeke,katiba) 2. ka BP 3. Meda	12. 13. 14. 15.	Ox-cart load 1 m3 (5 logs of 36 cm diameter x 2 m long) 500 g bottle 2.5 lts container	vegetative fallow when the soil is Language abbreviations B= Bemba				
11 12 Code P 1. 2.	Not known Other (provinces) Central Copperbelt Eastern	The growing of crops for rested. Cultivation consequence 55. From abroad	e same land a few years on selected and cleared plot tently shifts within an area that is otherw Code Q (Forest product units) 1. Small plate (akabale, kambale, kakeke,katiba) 2. ka BP 3. Meda 4. 5lts Gallon	12. 13. 14. 15. 16.	Ox-cart load 1 m3 (5 logs of 36 cm diameter x 2 m long) 500 g bottle 2.5 lts container 5 lts container	vegetative fallow when the soil is Language abbreviations B= Bemba N= Nyanja				
11 12 Code P 1. 2.	Not known Other (provinces) Central Copperbelt	The growing of crops for rested. Cultivation consequence 55. From abroad	e same land a few years on selected and cleared plot tently shifts within an area that is otherw Code Q (Forest product units) 1. Small plate (akabale, kambale, kakeke,katiba) 2. ka BP 3. Meda 4. 51ts Gallon 5. Kaselo (Ny)	12. 13. 14. 15. 16. 17.	Ox-cart load 1 m3 (5 logs of 36 cm diameter x 2 m long) 500 g bottle 2.5 lts container 5 lts container 20 lts container	vegetative fallow when the soil is Language abbreviations B= Bemba N= Nyanja K= Kaonde				
11 12 Code P 1. 2. 3. 4.	Not known Other (provinces) Central Copperbelt Eastern Luapula Lusaka	The growing of crops for rested. Cultivation consequence 55. From abroad	e same land a few years on selected and cleared plot tently shifts within an area that is otherw Code Q (Forest product units) 1. Small plate (akabale, kambale, kakeke,katiba) 2. ka BP 3. Meda 4. 51ts Gallon 5. Kaselo (Ny) 6. Lubango (Ny)	12. 13. 14. 15. 16. 17. 18.	Ox-cart load 1 m3 (5 logs of 36 cm diameter x 2 m long) 500 g bottle 2.5 lts container 5 lts container 20 lts container 20 lts bucket	vegetative fallow when the soil is Language abbreviations B= Bemba N= Nyanja K= Kaonde L= Lozi				
11 12 Code P 1. 2. 3. 4. 5.	Not known Other (provinces) Central Copperbelt Eastern Luapula	The growing of crops for rested. Cultivation consequence 55. From abroad	e same land a few years on selected and cleared plot tently shifts within an area that is otherw Code Q (Forest product units) 1. Small plate (akabale, kambale, kakeke,katiba) 2. ka BP 3. Meda 4. 5lts Gallon 5. Kaselo (Ny) 6. Lubango (Ny) 7. Heap (handful)	12. 13. 14. 15. 16. 17.	Ox-cart load 1 m3 (5 logs of 36 cm diameter x 2 m long) 500 g bottle 2.5 lts container 5 lts container 20 lts container 20 lts bucket 1 cord – fuel wood (stack of	vegetative fallow when the soil is Language abbreviations B= Bemba N= Nyanja K= Kaonde L= Lozi T= Tonga				
11 12 Code P 1. 2. 3. 4. 5. 6.	Not known Other (provinces) Central Copperbelt Eastern Luapula Lusaka Muchinga Northern	The growing of crops for rested. Cultivation consequence 55. From abroad	e same land a few years on selected and cleared plot ently shifts within an area that is otherw Code Q (Forest product units) 1. Small plate (akabale, kambale, kakeke,katiba) 2. ka BP 3. Meda 4. 5lts Gallon 5. Kaselo (Ny) 6. Lubango (Ny) 7. Heap (handful) 8. 25 Kg bag	12. 13. 14. 15. 16. 17. 18.	Ox-cart load 1 m3 (5 logs of 36 cm diameter x 2 m long) 500 g bottle 2.5 lts container 5 lts container 20 lts container 20 lts bucket 1 cord – fuel wood (stack of 1m X 1m 3m)	vegetative fallow when the soil is Language abbreviations B= Bemba N= Nyanja K= Kaonde L= Lozi T= Tonga Lu= Lunda Lve=Luvale				
11 12 Code P 1. 2. 3. 4. 5. 6.	Not known Other (provinces) Central Copperbelt Eastern Luapula Lusaka Muchinga	The growing of crops for rested. Cultivation consequence 55. From abroad	e same land a few years on selected and cleared plot ently shifts within an area that is otherw Code Q (Forest product units) 1. Small plate (akabale, kambale, kakeke,katiba) 2. ka BP 3. Meda 4. 5lts Gallon 5. Kaselo (Ny) 6. Lubango (Ny) 7. Heap (handful) 8. 25 Kg bag	ise cov 12. 13. 14. 15. 16. 17. 18. 19.	Ox-cart load 1 m3 (5 logs of 36 cm diameter x 2 m long) 500 g bottle 2.5 lts container 5 lts container 20 lts container 20 lts bucket 1 cord – fuel wood (stack of	vegetative fallow when the soil is Language abbreviations B= Bemba N= Nyanja K= Kaonde L= Lozi T= Tonga Lu= Lunda				

APPENDIX V: FIRST STAGE SAMPLING

The procedure that was used to select SEAs is described below.

- i. The list of SEAs will be ordered by SEA identification numbers. The list includes, for each SEA, the total number of households and the cumulated measure of size (by adding the number of households down the list);
- ii. A sampling interval I_h will be calculated by dividing the total number of households (final cumulated measure of size), N_h , by the number of sample SEAs allocated to the stratum, n_h ;
- iii. A random number between 1 and I_h which is the random start R_h for the systematic PPS selection of SEAs, will be drawn;
- iv. When determining the selected SEAs from the selection numbers, the calculations will be as follows: $S_{hi} = R_h + [I_h * (i-1)]$, where $i = 1, 2, - -, n_h$, rounded up to the next integer. The i^{th} sample SEA in the stratum is the one with the cumulated measure of size closest to S_{hi} without exceeding it.

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BOOK____OF____BOOKS





Food and Agriculture Organization of the United Nations

Republic of Zambia Central Statistical Office

LIST AND BASIC INFORMATION OF HOUSEHOLDS IN THE SEA

1.	Province:
0	District
2.	District:
3.	Constituency:
4.	Ward:
ч.	
5.	Region(1 = Rural2 = Urban)
6.	CSA Number:
0.	
7.	SEA Number:
•	· · · · · ·
8.	Interviewer's Name:
9.	Supervisor's Name:
10.	Assignment Record:

 PROCEDURE
 STARTING DATE
 ENDING DATE

 Listing
 _____/2014
 _____/2014

 Supervisor Check
 _____/2014
 _____/2014

INSTRUCTIONS FOR THE LISTING

PURPOSE OF THE LISTING

The listing for the Forest Livelihood and Economic Survey (FLES), provides the names of the Household Heads for the sample that must be selected before the actual fieldwork begins. The results from the listing will provide current information on the household and will give an indication of the size of the household as well as numbers of households that collect or acquire forest products. You will write the names of the Household Heads and their locations so that the interviewer will be able to find the household during the detailed enumeration.

CANVASSING GENERAL RULES

- e. Before you start canvassing, study your area map to identify the boundaries and plan your route that will ensure that you do not skip any households.
- f. Begin your canvassing at one boundary of your work area and keep a logical sequence.
- g. List each household in the order that you come across it while canvassing.
- h. If in doubt, consult your supervisor.

LISTING PROCEDURE

Identification: Write the name of the Province, District, Constituency, Ward, and your name in the spaces provided. Enter the identification codes for the CLUSTER, Province, District, Constituency, Ward, Region, and Census Supervisory Area (CSA), Standard Enumeration Area (SEA) in the boxes provided. Then indicate the dates you start and end listing in each book. Finally, the supervisor should also indicate when he started and ended checking the listing book.

Question 1: Write the village or locality name in which the household is located. The interviewer will need to find the households for the survey data collection during the next field operation and will need to know where to return.

Question 2: The household serial numbers for each SEA will be sequentially numbered starting with '001'.

Question 3: The full name of the household Head must be neatly printed starting with the family name. Include any name the person is commonly known by if different from the full name. This may be a nick-name or other title.

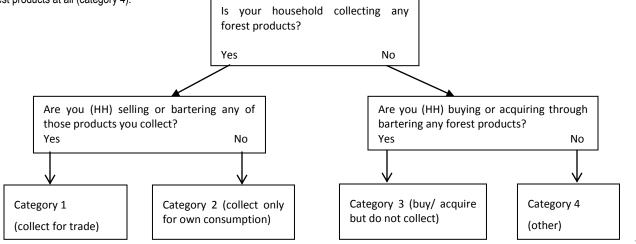
Question 4: Check mark the appropriate box to indicate the sex of the household Head and enter the appropriate response code in the box provided. If popularly known by any other name record that other name in brackets.

Question 5: Enter the number of persons who normally live, cook and eat as one household. The question extends past the family members and should include house-help and farm labourers if they feed from the household's food supply. Probe to find out if this number also includes babies because sometimes infants are forgotten in the count of household members.

When entering the number of persons, place one digit per box. The first box represents the tens place. For example, if the household contains only one person, and the information is entered as '1', it could be misinterpreted if the '1' is placed in the first box. The data entry clerk may enter it as a `10`. So to avoid this problem, write '0' before each single digit. Thus, `1' should be written as '01', '2' as '02', etc.

Questions 6-8: With the help of the question table below, find out from the respondent:

- a) Is the household collecting any forest products? If the response is 'Yes', find out if they sell/barter any of those products they collected (category 1) or if all is going for own/family consumption (category 2).
- b) If the household is not collecting any forest products, find out if they buy or acquire through bartering any forest products (category 3) or if they do not use forest products at all (category 4).



1. What is the correct village/locality name? (Print in block letters)	2. Household serial No.	3. What is the full name of the Household Head? (Print in block letters and record family names first)	4. What is the sex of the Household Head?	5. How many persons normally live here, cook and eat as one household?	6. Is the household collecting forest products?	Ask only if the HH collects forest products 7. Is the household selling or bartering any of those forest products they collect?	Ask only if the HH does not collect any forest products 8. Does the HH buy any forest products or acquire those through bartering?	sale/bart 2=HHs for own 7)	collect collect collect consu buying de 1 in	Yes/Co ting fo mption (/acquin () Q. 8)	ode 1 i rest p (No/C	code 2 in Q.
			1.[]Male 2.[]Female		1. [] Yes. 2. [] No.	1. [] Yes., they sell/barter all or part 2. [] No, all goes to own/family consumption	1. [] Yes. 2. [] No.					
			1. [] Male 2. [] Female		1. [] Yes. 2. [] No.	1. [] Yes., they sell/barter all or part 2. [] No, all goes to own/family consumption	1. [] Yes. 2. [] No.					
			1. [] Male 2. [] Female		1. [] Yes. 2. [] No.	1. [] Yes., they sell/barter all or part 2. [] No, all goes to own/family consumption	1. [] Yes. 2. [] No.					
			1. [] Male 2. [] Female		1. [] Yes. 2. [] No.	1. [] Yes., they sell/barter all or part 2. [] No, all goes to own/family consumption	1. [] Yes. 2. [] No.					
			1. [] Male 2. [] Female		1. [] Yes. 2. [] No.	1. [] Yes., they sell/barter all or part 2. [] No, all goes to own/family consumption	1. [] Yes. 2. [] No.					
			1. [] Male 2. [] Female		1. [] Yes. 2. [] No.	1. [] Yes., they sell/barter all or part 2. [] No, all goes to own/family consumption	1. [] Yes. 2. [] No.					
			1. [] Male 2. [] Female		1. [] Yes. 2. [] No.	1. [] Yes., they sell/barter all or part 2. [] No, all goes to own/family consumption	1. [] Yes. 2. [] No.					
			1. [] Male 2. [] Female		1. [] Yes. 2. [] No.	1. [] Yes., they sell/barter all or part 2. [] No, all goes to own/family consumption	1. [] Yes. 2. [] No.					

Summary of Households Listing and Sample Household Selection

Category	H/H's Listed	Sample size	Sampling interval	Random Start
1				
2				
3				
4				
Subtotal				
Non contact/ Refusal				
Total Listed				

APPENDIX VII: RANDOM NUMBERS

	TABLE OF RANDOM NUMBERS									
0	1	2	3	4	5	6	7	8	9	
11164	36318	75061	37674	26320	75100	10431	20418	19228	91792	
21215	91791	76831	58678	87054	31687	93205	43685	19732	08468	
<u>10</u> 438	44482	66558	37649	08882	90870	12462	41810	01806	02977	
36792	26236	33266	66583	60881	97395	20461	36742	02852	50564	
73944	04773	12032	51414	82384	38370	00249	80709	72605	67497	
49563	12872	14063	93104	78483	72717	68714	18048	25005	04151	
64208	48237	41701	73117	33242	42314	83049	21933	92813	04763	
51486	72875	38605	29341	80749	80151	33835	52602	79147	08868	
99756	26360	64516	17971	48478	09610	04638	17141	09227	10606	
71325	55217	13015	72907	00431	45117	33827	92873	02953	85474	
65285	97198	12138	53010	94601	15838	16805	61004	43516	17020	
17264	57327	38224	29301	31381	38109	34976	65692	98566	29550	
95639	99754	31199	92558	68368	04985	51092	37780	40261	14479	
61555	76404	86210	11808	12841	45147	97438	60022	12645	62000	
78137	98768	4689	87130	79225	08153	84967	64539	79493	74917	
62490	99215	84987	28759	19177	14733	24550	28067	68894	38490	
24216	63444	21283	07044	92729	37284	13211	37485	10415	36457	
16975	95428	33226	55903	31605	43817	22250	03918	46999	98501	
59138	395428	71168	57609	91510	77904	74244	50940	31553	62562	
29478	59652	50414	31966	87912	87154	12944	49862	96566	48825	
	95009	27429	72918	08457	78134	48407	26061	58754	05326	
96155										
29621	66583	62966	12468	20245	14015	04014	35713	03980	03024	
12639	75291	71020	17265	41598	64074	64629	63293	53307		
14544	37134	54714	02401	63228	26831	19386	15457	17999	18306	
83403	88827	09834	11333	68431	31706	26652	04711	34593	22561	
67642	05204	30697	44806	96989	68403	85621	45556	35434		
64041	99011	14610	40273	09482	62864	01573	82274	81446	32477	
17048	94523	97444	59904	16936	39384	97551	09620	63932	03091	
93039	89416	52795	10631	09728	68202	20963	02477	55494	39563	
82244	34392	96607	17220	51984	10753	76272	50985	97593	34320	
96990	55244	70693	25255	40029	23289	48819	07159	60172	81697	
09119	74803	97303	88701	51380	73143	98251	78635	27556	20712	
57666	41204	47589	78364	38266	94393	70713	53388	79865	92069	
46492	61594	26729	58272	81754	14648	77210	12923	53712	87771	
08433	19172	08320	20839	13715	10597	17234	39355	74816	03363	
10011	75004	86054	41190	10061	19660	03500	68412	57812	57929	
92420	65431	16530	05547	10683	88102	30176	84750	10115	69220	
35542	55865	07304	47010	43233	57022	52161	82976	47981	46588	
86595	26247	18552	29491	33712	32285	64844	69395	41387	87195	
72115	34985	58036	99137	47482	06204	24138	24272	16196	04393	
07428	58863	96023	88936	51343	70958	96768	74317	27176	29600	
35379	27922	28906	55013	26937	48174	04197	36074	65315	12537	
10982	22807	10920	26299	23593	64629	57801	10437	43965	15344	
90127	33341	77806	12446	15444	49244	47277	11346	15884	28131	
63002	12990	23510	68774	48983	20481	59815	67248	17076	78910	
40779	86382	48454	65269	91239	45989	45389	54847	77919	41105	
43216	12608	18167	84631	94058	82458	15139	76856	86019	47928	
96167	64375	74108	93643	09204	98855	59051	56492	11933	64958	
70975	62693	35684	72607	23026	37004	32989	24843	01128	74658	
85812	61875	23570	75754	29090	40264	80399	47254	40135	69916	

VEGETATION TYPE	DESCRIPTION OF THE VEGETATION TYPE						
CLASS 1 (Dry Evergreen Forest) - This is a three-storey forest with closed evergreen or semi-deciduous canopy 25 to 27m high with occasional taller emergents, a discontinuous evergreen under storey 9 to 15m high and a dense evergreen shrub-scrambler thicket 1.5 to 6m high. It occurs in three distinctive sites; (a) plateau, (b) the bangweulu lake basin, and (c) northern Kalahari basin, always on level and gently undulating ground. The disturbance of these forests by fire and cultivation results in degrade to Miombo woodland or Kalahari woodland, or chipya. There are five sub forest classes that make up the dry evergreen forest namely;							
Code: 01 <i>Parinari</i> Forest	Canopy dominants are restricted to <i>Parinari excelsa and Syzygium guineense ssp, Afromontanum</i> with odd emergent <i>Entandrophragma delevoyi, Marquesia macroura</i> and <i>Erythlophleum suaveolens</i> are occasional canopy associates. Partial destruction of the Parinari forest results in a gradual regression to Miombo woodland (or Copperbelt chipya) in which the forest overwood may have been replaced by <i>Brachystegia speciformis or Brachystegia microphylla</i> . Complete destruction of Parinari forest results in a Chipya identical with Lake basin chipya.						
Code: 02 <i>Marquesia</i> Forest	Canopy dominants are restricted to Anisophyllea pomifera, Marquesia macroura, Podocarpus milanjianus locally and Syzygium guineense spp, afromontanum. Partial destruction of Marquesia forest results in a gradual regression to Miombo woodland. Total destruction results in Lake basin chipya.						
Code: 03 Lake Basin Chipya	This is three-storey woodland with an open evergreen to deciduous canopy 21 to 27m high characterized by Albizia antunesiana, Burkea Africana, Combretum collinum, Erythlophleum africanum, Parinari curatellifolia, Pericorpsis angolensis, Pterocarpus angolensis and Terminalia sericea. Bracken Aframomum and Smilax are characteristic of the forest floor. This type may occur on isolated patches of lake basin type soil well separated from the true Lake Basin.						
Code: 04 <i>Cryptosepalum</i> Forest	Canopy dominant are restricted to <i>Cryptosepalum exfoliatum spp, Pseudotaxus</i> and <i>Guibourtia coleosperma</i> in the lower rainfall areas of Zambezi, Kabompo and Kaoma districts but associated with <i>Marquesia acuminate, Marquesia macroura, Parinari excelsa</i> and <i>Syzygium guineense ssp, afromontanum</i> in the high rainfall areas of Mwinilunga district. Partial destruction of cryptosepalum forest leads to miombo / kalahari woodland, but total destruction leads to kalahari sand chipya.						
Code: 05 Kalahari Sand Chipya	Kalahari sand chipya's canopy is characterised with Burkea Africana, Combretum collinum, Dialium engleranum, Erythrophleum africanum, Guibourtia coleosperma, Peltophorum africanum, Pterocarpus angolensis and Terminalia sericea and there is a dense growth of aframomum and bracken on the forest floor.						
CLACC 2 (Dec Decidence French) This is a true store (see the '							

CLASS 2 (Dry Deciduous Forest) - This is a two-storey forest having an open or closed over-wood, usually deciduous, and an under wood shrub layer of deciduous or partly evergreen thicket. The disturbance of this type of forest by fire and cultivation results in almost the same degraded Miombo or Chipya as is the case with the dry evergreen forest. There are only two sub forest classes namely;

Code: 06 <i>Baikiaea</i> Forest	This is a two-storey forest with an open or closed, usually deciduous canopy 9 to 18m high composed of <i>Baikiaea plurijuga</i> and <i>Pterocarpus antunesii</i> in varying proportions. Invasive <i>Acasia giraffae</i> and <i>Combretum collinum</i> are wide spread, <i>Entandrophragma caudatum</i> is a local emergent. Below the canopy is a well defined deciduous thicket (mutemwa) composed of shrubs and scramblers 3 to 6m high. Two main variants of this forest are
	(a) <i>Commiphora-Combretum-Pterocarpus</i> thicket on transitional Kalahari sands. This is a <i>Baikiaea</i> type forest without <i>Baikiaea</i> spp.

VEGETATION TYPE	DESCRIPTION OF THE VEGETATION TYPE
	(b) <i>Commiphora-Kirki</i> thicket on karoo sands in the valleys of the lower Luano, Luangwa and Zambezi rivers.
	In limited patches in the extreme Southwest of Zambia Baikiaea forest also exists in a dwarf form with canopy 1.3m high and odd emergents to 3m high, with the canopy and "mutemwa" elements at the same level. Partial destruction of Baikiaea forest, and the clearing of the "mutemwa" for cultivation, leads to Kalahari woodland. Total or almost total destruction of <i>Baikiaea</i> forest results in a secondary forest dominated by <i>Acacia girafae, Combretum collinum and Terminalia sericea</i> . <i>Baikiaea and/or Pterocarpus</i> may or may not be present.
Code: 07	This is a two-storey forest with a very open over wood of deciduous or semi-deciduous emergents 6
Itigi Forest	to 12m high characterized by <i>Baphia massaiensis ssp., floribunda, Boscia angustifolia, Burttia prunoides, Bussea massaiensis ssp, Diospyros mweroensis</i> and the succulent cactus-like <i>Euphorbia candelabrum</i> . The trees are often encrusted with lichens. Total destruction of itigi forest results in a lake basin chipya.
	reen Forest) - This is a variable three-storey forest sub divided into Montane, Swamp and Riparian his type of forest leads to biotic grassland or reed beds. There are three sub forest classes called;
Code: 08	This is a three-storey forest with a closed, evergreen canopy about 27m high without any clear
Montane Forest	dominants but with Aningetria ssp., Cola greenwayi, Myrica salicifolia, Nuxia spp., Olinia usambarensis, Parinari excelsa, Podocarpus milanjianus, Rapanea melanophloea and Trichilia prieuriana as the most abundant species. Montane forest exists only in small relic patches. Secondary montane forest is a mainly deciduous forest 2 to 18m high characterized by Hagenia abyssinica, Macaranga kilimandscharica, Maesa lanceolata and Myrica salifolia forming belts of variable width around the primary forest patches. Ground between the forest patches is covered by fire-derived upland grassland dotted with gnarled Protea madiensis shrub.
Code: 09 Swamp Forest	This is a three-storey forest with a closed evergreen canopy to 27m. Common species include <i>Ficus capensis, Homalium africanum, Rauvolfia caffra, Ilex mitis, Mitragyna stipulosa, Syzygium cordatum, S. owariense, Xylopia aethiopica, X. rubescens</i> and <i>Uapaca guineense</i> . Swamp forest occurs in high rainfall areas of the country associated with the major catchment zones found in Zambia. These areas are characterized by super abundance of ground water all year round. The soil types mainly alluvials control moisture regimes and discharge of water into lakes and rivers. It occurs in three forms: (a) estuarine swamp flooded all year round; (b) seepage swamp with water table at or just above ground level all year round; and (c) seasonal swamp flooded during the rainy season and with the water table near ground level for the rest of the year.
Code: 10 Riparian Forest	This is a three-storey forest with a closed evergreen canopy to 25m high characterized by <i>Diospyros mespiliformis, Khaya nyasica Parinari excelsa and Syzyfgium cordatum,</i> associated with <i>Adina microcephala, Bridelia micrantha, Cleistanthus milleri, Faurea saligna, Homalium africanum, Ilex mitis, Manilkara obovata and Raphia palms.</i> The composition varies from a northern veregeen element and southern deciduous element. Most riparian forest in the territory is wholly or partially secondary. Characteristic secondary species include <i>Acasia polyancantha, Salix subserrata, Terminalia sericea and Zizphus spp.</i> Climbers are frequent.
	• This has a one-storey (sometimes two-storey) structure with a dense ground cover of suffrutices and woodland is probably derived from degraded types 1 and 2, the Kalahari woodland from degraded
Code: 11 Miombo Woodland	This is two-storeyed woodland with an open or partially closed canopy of semi-evergreen trees 15 to 21m high characterized by species of <i>Brachystegia, Isoberlinia, Jubernardia</i> and <i>Marquesia</i> macraura with Erythrophleum africanum, Parinari curatellifolia and Pericopsis angolensis as

VEGETATION TYPE	DESCRIPTION OF THE VEGETATION TYPE
	frequent associates. The forest floor is covered by a more or less dense grass cover. Relic patches of evergreen thicket may or may not be present. Most Miombo woodland is secondary re-growth as a result of extensive cultivation in the past. The Miombo woodland also spreads from the plateau onto the adjacent hills and down the escarpments, and also occurs as a relic in the major river valleys. In the west it has invaded the Kalahari sands to become Miombo/Kalahari woodland which extends beyond the border of Zambia.
Code: 12 Hill Woodland	Where there are more rocks than sand on the hills, the <i>Brachystegias</i> and their allies almost die out except for <i>Brachystegia microphylla</i> , and <i>Brachystegia glaucescens</i> and their place is taken by characteristic hill shrubs such as <i>Aeschynomene rubrofarinacea</i> and <i>Aeschynomene semilunari</i> , <i>Euphorbia ussanguensis and Euphorbia griseola</i> , <i>Myrothanmnus flabellifolius</i> , <i>Pentas nobilis</i> , <i>Vellozia equisetodes</i> and <i>Vellozia tomentosa</i> , and <i>Vernonia bellinghamii</i> .
Code: 13 Kalahari Woodland	This is a two-storey woodland with an open or partially closed, deciduous or semi-deciduous over wood 18 to 24m high characterized by <i>Ambloygonocarpus andongensis, Burkea Africana, Combretum collinum, Cryptosepalum exfoliatum ssp. Pseudotaxus, Dialium engleranum, Erythlophleum africanum, Guibortia coleosperma, Parinari curatellifolia and Terminalia sericea.</i> The Kalahari woodland embraces all woodlands on kalahari sands. The vegetation is derived from the partial destruction of dry deciduous <i>Baikiaea</i> forest. It forms a catenary regression from <i>Baikiaea</i> forest to suffrutex savanna to grassland on kalahari sands. Five stages are distinct in composition namely <i>Guibourtia woodland, Burkea erythrophleum woodland, Burkea-Diplorhynchus scrub, Diplorhynchus scrub</i> and <i>Parinari suffrutex savanna</i> .
Code: 14 Mopane Woodland	This is a one-storeyed woodlands with an open deciduous canopy 6 to 18m high. The dominant <i>colophospermum mopane</i> is pure or almost pure. Scattered elemements of munga woodland occur here and there represented chifly by <i>acacia nigrescens, adansonia digitata, combretrum imberde, kirkia acuminate and lannea stuhlmannii</i> . The python vine fockea multiflora, is usually present. Mopane-munga ecotones are more common then pure mopane woodland . two extreme variant can be recognised; a rich variant on sandland or mudstone above and an impoverished variant on sandstone or mudstone as abave and an impoverished variant on akeletal mudstone or pebble beds . the latter is a low open scrub of <i>colophospermum mopane, terminalia randii and/ or t. stuhlmannii</i>
Code: 15 Munga Woodland	This is a coined term for savanna woodland .it is an open, park-like, 1 to 2 storeyed deciduous woodland with scattered or grouped emergents to 18m high characterised particularly by acacia, combretum and ter minalia species. occasionally it has a deciduous or semi-deciduous thcket understorey. mungu woodland is divided into; [a] upper valley sites mainly in central province [b] lower valley in the luangwa and mid Zambezi valley, and [c] Kalahari sites on the Kalahari sands. On the first two sites there tends to be a <i>combretum-terminalia</i> variant on the more elevated, better-drained sites and an acacia variant on the lower, poorer drained sites. The penultimate stage in the degradation of munga woodland is what is usually referred to as dambo-margin vegetation which is wide so spread throughout the territory.
	Intion Types) - All types of vegetation, i.e. forest, woodland, thicket, scrub and grassland can be found s of termitaria. They have been classified by habitat rather than by vegetation type, because to some ther.
Code: 21 Termitaria Vegetation and bush groups	 (a) Miombo termitaria are characterised by Albizia camara, Boscia angustifolia, Cassine aethiopica, Combretum molle, Commiphora mollis, Erythrina abssynica, Euphorbia candelabrum and Ziziphus mucronata in their upper storey. (b) Kalahari termitaria are characterised by Boscia albitrunca, Combretum imberbe, Diospyros mespiliformis and Strychnos potatorum

VEGETATION TYPE	DESCRIPTION OF THE VEGETATION TYPE
	(c) Mopane termitaria are characterised by Acasia nigrescens, Albizia harveyi, Colophospermum mopane, Garcinia livingstonei, Kirkia acuminate, Lannea stuhlmannii and Markhamia acuminate.
	(d) Munga termitaria are characterised by Albizia harveyi, Combretum imberbe, Lannea stuhlmannii, Manilkara mochisia and Strychnos potatorium.
	(e) Riparian termitaria are characterised by Apodytes dimidiate, Erythrophleum sauveolens, Garcinia livingstonei, Parinari curatellifolia and Syzygium cordatum.
	(f) Some bush groups (e.g. in Chinsali and Kaoma Districts) are based on termitaria along the margins of seepage dambo and flood plain. Other bush groups (e.g. in Senanga District) are not based on termitaria but are isolated patches of Type 13 on slight elevations surrounded by grassland.
Code: 31 and 32 Grasslands	The grasslands are edaphic grasslands associated with the drainage lines. They can be divided into dambo (headwater valley) grassland, river-line grassland and floodplain grassland. These are associated with the streams and rivers; floodplains of the larger rivers like the <i>Zambezi, Luapula, Kafue</i> and <i>Chambeshi</i> ; Seasonally flooded fresh water swamps like <i>Bangweulu; Lukanga; Busanga</i> and <i>Mweru Wantipa</i> ; and some alkaline swamps which evaporate to salt. Mountain grassland and watershed plains are also included.

Since the UNIT used to measure Forest Products is locally known, you are requested to convert the local UNIT into a Standard UNIT as per the table below through measuring / gauging it in the local market.

	Code A (Forest products)	Local Unit (Code Q)	Equivalent value in Standard unit
1	Industrial wood		m ³
2	Fuel wood		m ³
3	Charcoal		Кg
4	Wood for wood carvings		m ³
5	Wood for poles		Nb
6	Fruits, nuts, seeds, roots, berries, etc.		Кg
7	Mushrooms		Кg
8	Fodder		Кg
9	Rattan		Кg
10	Plant medicines		Кg
11	Herbs and spices		Кg
12	Dying / tanning		Кg
13	Seeds (for regeneration purposes)		Кg
14	Fibres (for rope etc.)		Кg
15	Other plant products		Кg
16	Wildlife (including bush meat)		Кg
17	Beekeeping activities (e.g. honey)		Litres
18	Caterpillar		Кg
19	Other		