Appendix 5

FAO-Netherlands Partnership Programme
Seed System Impact on Household Welfare and Agricultural Biodiversity

Household Survey
and Community Survey

Enumerator Guide

1. Introduction

The Food and Agricultural Organization (FAO) of the United Nations under the FAO-Netherlands Partnership Program (FNPP) and, in collaboration with Hararghe Catholic Secretariat and Alemaya University will carry out a survey on "**Seed System Impact on Household Welfare and Agricultural Biodiversity**".

The objective of this research is to analyze the ways in which the management of seed supply systems affect farmers' access to plant genetic resources and the impact this has on farmers' welfare as well as on-farm agro-biodiversity. To meet this objective, primary data need to be collected from farmers, seed suppliers in the formal and informal sectors, market traders, and community leaders in the Hararghe zone of Ethiopia.

Ethiopia was selected for the case study because it is both an important source of agro-biodiversity, and a country where improving seed system management is a critical aspect of improving farm level productivity – which is necessary to meet the food security objectives of the country. The Hararghe zone was selected for the case study site because it is an area of high seed insecurity as well as the site of seed multiplication and distribution project implemented by the Hararghe Catholic Secretariat (HCS) in conjunction with Alemaya University. Lessons learned from this project will provide much insight into seed system management. In addition, the Hararghe zone is the site where a FAO/Govt of Norway project on strengthening seed systems will be implemented, and so information from this research effort can feed directly into that project.

The household (HH) survey will be carried out, through direct interview with farmers, in two visits that will take place in August/September 2002 and after the harvest of the 2002 Meher crop. The survey will be complimented by in field measurement of agricultural biodiversity as well as a community survey and market information collection.

2. The household (HH) survey

The objective of the household survey is to collect direct information from farmers about their socio-economic characteristics, their farming system and their interaction with the formal and informal seed system, as well as the level of agricultural biodiversity in their fields. Approximately 800 HHs in the Hararghe area, specifically in Chiro, Anchar, Gorogotu, Meta and Dire Dawa, will be surveyed. In order to properly analyze the interaction with the seed system and the impact of the HCS "regular" seed program, the sample has been selected in a way to have three groups of HH represented:

1. HHs that participated in the HCS program;
2. HHs located in HCS program communities but that did not participate in the program, and;
3. HHs located in communities similar to HCS communities but that were not included in the HCS program.

The specific objective of the survey is to gather information at the following levels:

1. *Household level*: household demographics, socio-economic conditions, agricultural and non-agricultural activities and income, migration, level of education, participation to social and/or religious activities, their ethnicity as well as access and use of credit;
2. *Farm level*: total land owned, land rented in and rented out including the type of contracts used, soil quality, altitude, slope etc;
3. *Farming system:* crops planted, management of plots and livestock, labor, animals and tractor use, and the application of fertilizers and pesticides;
4. *Seed System:* acquisition of seeds, criteria for seed selection, access to varieties and to seeds, and formal and informal seed markets; and
5. *Agricultural biodiversity:* variety planted, access to varieties, source of seeds for different varieties, source of information on varieties, and good and bad characteristics of different varieties.

The HH survey will therefore include a broad range of questions.

3. The community survey

A community survey will be conducted to complement the information collected in the household survey. The survey will be administered to leaders in the community who have adequate information about general community characteristics. The survey will ask questions about community population, land use, infrastructure, access to services, seed system and organization.

4. Survey team and their functions

The survey teams' primary role is to collect household-level data. An additional role is to collect community-level information. The team is represented of enumerators, team leaders and coordinators.

Enumerators

Enumerators are responsible for carrying out the interview with selected HHs. They are under the leadership of the team leaders. They must be certain that the information they are collecting is accurate. They need to check to see that the data is consistent across tables and that all tables in the survey are adequately completed. For example, they need to verify the total area operated by a household matches the area reported for all of the plots. Enumerators must check over surveys upon completion and sign the survey verifying the accuracy of the survey. If data is found to be inaccurate, enumerators will be required to return to the household to collect accurate information.

Team leaders

Team leaders are responsible for coordinating their survey team, checking the work done by enumerators and interacting with survey coordinators about any problems or needs that arise. Every day the team leaders must do a series of checks on every survey to ensure that the surveys were done properly and are not missing any information. The team leaders must sign the survey verifying its accuracy. If surveys are inaccurate or are missing information, they must send the enumerator back to the household to complete the information. Only when the survey is done should they sign off on the survey. Team leaders are also responsible for carrying out the community surveys. One of the team leaders will be assigned to coordinate the activities of the survey teams and report to coordinators on any issues/problems that arise.

Coordinators

Two coordinators will be working on the study. The first is the overall study coordinator who is responsible for providing liason between HCS, Alemaya University and FAO, making arrangements with the Woreda and PA officials in survey areas, and providing logistical support, making sure the teams has all the items needed. The second is the survey coordinator who will be working out in the field with the survey teams, and will provide a schedule of PA and household visits over the course of the survey developed in consultation with FAO. The survey coordinator will locate the households selected for the survey. The survey coordinator will be responsible for assigning household survey numbers to each of the surveys, and tracking the progress of the survey implementation by number, checking that completed surveys have been signed off by the enumerator and team leader.

5. Interview and enumerators' role.

5.1. Material provided

The enumerator will receive and use:

1. *Household survey instrument*: To be filled in based on the interview with the household head;

2. *Enumerator guide*: Contains all instructions on how to complete the survey; and

3. *Code sheet*: To code the answers to specific questions given by farmers (as noted in the survey).

5.2. Enumerator's functions

- Study and understand all instruction included in the manual and provided through the training in order to complete the survey in an appropriate manner;

- Write in a clear and understandable manner on the survey by using capital letters;

- Co-ordinate with the team leaders on how to carry out the survey and to report daily work done;

- Check that material needed to carry out the survey is sufficient and appropriate;

- Carry out the survey personally to each HH selected, avoiding the presence of external people and following scrupulously instructions given;

- Introduce themselves, explaining who they are and for who they are working in a manner that facilitates the participation of households in the survey;

- Ask question in a clear, and kind manner and write down the answer in an ordinate and clear way;

- Double check and revise the survey at the end of the survey in order to correct mistakes and sign off on completed surveys as verification of the accuracy of the survey; and

- Perform the work in an honest manner in accordance with the importance of the project.

5.3 How to carry out the interview

Face-to face interviews are a way to get information directly from the person being interview and should not be viewed as a mechanical process, but rather as an art. It should be a normal, smooth conversation between two persons, in a manner that does not influence or lead the answers, nor get external suggestion from other people. In order to carry out the interview in a proper manner, the following rules should be respected:

Identify the person to interview

The household will be chosen by the supervisors and assigned to the enumerator. The enumerator should identify the selected HH, then identify the head of the HH or a direct substitute that can give answers instead of the head of HH. The enumerator and interviewee do not know each other. It is thus important that the enumerator establishes a clear relationship with the interviewee without making them suspicious. For this reason, the first impression is very important. When they meet, the interviewer is the first to start talking informally, introducing his/her name, for what organization is he/she working for and what the purpose of the visit is. For example: Good morning my name is .... and I am from Alemaya University and am working for FAO of the United Nations and HCS on a project that aim at understanding rural household livelihoods and their farming system in this area. I would like to ask you some question since the information you can provide is very important for the purpose of this project. Would you be available to collaborate in answering the questions?

Private interview

It is very important that the interview is carried out privately without external presence or influences since other people could bias the output and thus the result of the survey. To avoid other persons' presence that can interfere with the interview, the enumerator will need to explain the importance of confidentiality to the interviewee with tact.

Confidentiality and no right or wrong answers

Before starting the first question it is very important to let the farmer know that information given are and will be maintained secret. No name will be entered with the data but only numbers. The only reason we collect names is that so we can return for a visit later. There are no right or wrong answers to the questions submitted but any kind of information provided by the interviewee will be very important for the purpose of the project and will be maintained anonymous and used for statistical analysis.

Neutrality and time

It is essential that the enumerator maintain neutrality without interpreting the questions in his/her own way. Each question must be read exactly how it is written since a slight different word might induce a different reaction and answer to the farmers. Give farmers time to understand and to think about the answer. Questions should be asked clearly and slowly. It is important that the enumerator does not suggest answers. If the answer given by farmers is vague, the enumerator should just ask kindly to explain a bit more or to repeat the answer given. If the enumerators figure that farmers are answering randomly in order to finish the interview, he/she should better suggest that there is no prize and that it is better to take time. But if the interviewee is running because is getting annoyed or tired, the enumerator should postpone the continuation of interview to another day since tiredness decrease data quality. Once the enumerator has carried out a bit of interviews and knows the area, he/she can guess the answer before the farmer gives one. It is essential the enumerator does not anticipate, lead, guess or suggest the answers since the output could be seriously damaged by this behavior leading to biased results.

How to handle indecision and don't know answers

Enumerators should always try to avoid missing answers or don't know answers. Consequently he/she should always try to investigate more but without leading the answers or influencing the farmers. Just asking to explain a bit more or to think more about the answer. Similarly if he/she realizes the farmer gave an answer inconsistent with some given earlier, he/she should try to investigate more without disturbing the farmers. If there is not any way to get an answer code "99" should be used.

Revision

Once the interview is done and before taking leave from the farmer, the enumerator should evaluate the survey and double check that nothing is missing and that there are no incomplete answers. If that's the case, enumerator should go back and ask again. Once finished he/she will thank the farmer (also in the name of FAO, Alemaya and HCS), will write the time the interview is finished in the cover page in hours and minutes (HH:MM), and will take leave.

Before giving the survey to the team leaders, enumerators must check carefully that nothing is missing and there are no mistakes. If everything is fine he/she can give the survey to the team leader otherwise he/she should go back to the HH

and add what is missing and correct what is mistaken. When the team leader gets the survey, he/she will check nothing is missing, everything is clear and understandable and there are no mistakes. If everything is fine, he/she will approve the survey and pass it on to the appropriate coordinator. If there are problems with the survey, he/she will give it back to the enumerators who will go back to the household with a detailed list of what needs to be corrected.

6. General instruction for completing the survey

The survey is submitted to the Head of Household but is meant to inquire about the entire family. This section provides general instructions for completing the survey.

6.1 Basic instructions provided in the survey

In completing the survey, the enumerator must observe the following criteria:

a. *All instructions to enumerators are written in italics and are underlined. Their purpose is to give instruction to the enumerator and should not be read to the person interviewee.*

b. Direct questions to farmers are:

> ***in bold-italics at the beginning of each table; or***
>
> in regular times new roman within the table.

c. For each question a variable unit is defined in the survey: THE UNIT TO USE IS INDICATED IN SMALL CAPS AND CAN BE A CODE FROM A SPECIFIED LIST, A NAME OR A UNIT OF MEASURE. For example:

1. List the names of all of the members of the household	2. What is the sex of the household member? 0=MALE 1=FEMALE	3. What is the age of the household member?
NAME	CODE	YEARS
Adam	0	43
Mary	1	36
John	0	13

In this example, question 1 asks to indicate each HH member's name, question 2 asks the sex of the HH member using a code, and question 3 asks the age of each of them with the unit indicating that it should be expressed in years. In the previous example one HH member is called Adam, is male (code=0) and is 43 years old, while Mary is female and 36 years old, and John is male and 13 years old. When enumerators are required to write names or locations, they must write clearly and in capital letters.

Sometimes it can be required to indicate hectares of land or in other cases time necessary to reach a certain point in minutes etc. Hectares should be indicated using decimal points. So if the farmer owns 3 ha. of land the enumerator should write 3.0. If the farmer owns 1.5 the enumerator should write 1.5. In case the farmers does not own land, the enumerator should write 0.0.

6.2 Coding options

In other cases, there is a CODE to use which might be either directly indicated within the question or refer to the code sheet which is used for repeated codes and codes that have many options. For example:

1. What is the color of the soil of this plot? 1=BLACK 2=BROWN 3=RED 4=GREY
CODE
2

2. From whom did you buy the seeds? *See code sheet*
SOURCE CODE
5

In question 1, one of the codes for color identification should be used in the answer. For instance if the color of the soil in the plot identified during the interview is brown, the enumerator must write 2 in the answering row. In question 2, the code to use needs to be taken from the code sheet. So the enumerator need to look at the code sheet for source were he/she will find something like the following:

Source code
1=RETAINED/FAMILY HERITAGE
2=RELATIVE
3=FRIEND/NEIGHBOR SAME VILLAGE
4=FRIEND/ACQUAINTANCE   OTHER VILLAGE
5=VILLAGE MARKET
6=OTHER MARKET
7=GOVERNMENT EXTENSION PACKAGE
8=GOVERNMENT. SUPPORT
9=LANDOWNER (*If rented land*)
10=HCS
11=OTHER NGOS;
12=OTHER

Consequently, if the farmer bought seed in the village market, the enumerator should write 5 in the answering row.

Note that CODES should never be read to the HH by the enumerator since this may lead the interviewee to an answer. When the interviewee provides the answer, the enumerator should check the CODES provided and write the number corresponding to that answer. If the answer is not listed among the CODES, the enumerator should enter the "other" option.

6.3 Ordering questions

In some instances, the enumerator is asked to go to a particular question based on the answer of an earlier question. For example, the price of purchased seed will only be asked if the HH says they purchased some seed. If they did not purchase seed this question is skipped. Instructions are given on the survey when questions should be skipped. The rules for managing the order of questions is as follows:

a. If nothing is indicated, questions should be asked in the order they are in the survey with the enumerator proceeding from one question to the next.

b. An arrow (➔) on the side of possible answers indicates the next question to be asked if that answer is given. Thus ➔4 means: go to question 4 if this answer is given. For example, if the question is:

1. Did you participate in HCS' seed program?
0=NO (➔2)
1=YES (➔ 3)

This means that if the answer is NO the enumerator should write 0 in the cell and then go to question 2. However, if the answer is YES the enumerator should write 1 in the cell, skip question 2 and ask question 3.

6.4 Don't know answer

Don't know and don't remember answers should always be avoided and enumerators should try to get an answer from the interviewee without influencing him. If, despite this, the interviewee still answers "I don't know" or "I don't remember" then 99 should be written in the correspondent cell:

1.What was the last use of this plot before January 2002? 1=FALLOW 2=LEGUME 3=OTHER CROP 4=NATIVE PASTURE OR FOREST 5= OTHER
CODE
99

If the interviewee cannot remember or does not know the enumerator should write 99 in the correspondent cell.

6.5 Entering zeros and skipping questions

Questions should only be skipped, that is no response entered, if they are not asked. Questions that are asked must have an answer entered. For example, in Table 2.4 Livestock/animals in question 8 we ask if the HH sold any beef cattle. If the HH did not then a "0" should be entered. Question 9 asked how much is earned from this sale. If the answer to question 8 is 0 then question 9 can be skipped. Remember that if the farmer doesn't know an answer 99 should be entered.

6.6 Correcting mistakes

At times, incorrect data might be entered. If a mistake is made in a cell, the number or name written should not be deleted nor should the correct answer be written over the previous one. The incorrect answer should be cancelled with a clear X through the mistake and the correct answer should be written to the right of the wrong answer. For example, if the farmer said 3 and then he/she changed the answer to 4, or the enumerator wrote 3 rather than 4 this is how it should be corrected.

YES: | X̶ 4 | NO: | 3 4 | NO: | 3̶ |

If an entire row is mistaken, it should be cancelled with a horizontal line through the entire row and the information should be transferred to the next row as follows:

PLOT IDENTIFICATION	1. What crops did you plant since January 2002 on each operated plot we discussed in the previous section? 1= SORGHUM 2=MAIZE 3=WHEAT 4= HARICOT BEAN 5= OTHER CROP CODE:	2.What is the share of this plot that you used for this crop? %	3. Is this crop intercropped with something else? 0=NO 1=YES CODE	4. When did you plant this crop? 1=JANUARY 2=FEBRUARY …. 12=DECEMBER MONTH
1	2	80	1	2
2̶	4̶	1̶1̶0̶	0̶	3̶2̶
3̶ 2	4	100	0	3
4				

7

7. Detailed instructions to enumerators for completing the survey

Section 0.   Cover page

Before starting, you should establish a relationship with the interviewee who should be the Head of the Household. If the HH head is not available, you should interview his/her direct substitute, someone who knows or gives help in managing the house and the farm. If such a person cannot be found, an alternative HH must be found from the team leader.

So you start by introducing yourself and explaining the purpose of the visit. Before starting the interview you need to clarify to the farmer that there are no right or wrong answers to the questions asked and any answer given will be fine. Finally, you need to explain that names will remain anonymous and that all the information they provide will be put in the database that will not include names.

After the introduction, you should complete the cover page.

Question 1   Write your first and second name.

Question 2   Write the first, second and third name of Head of HH up to the grandfather of the interviewee. The interviewee should be the head of the household although the survey is meant to inquire about the entire family. If the HH head is not available his/her direct substitute, someone who knows or help in managing the house and the farm should be interviewee.

Question 3   Put the code of the sex of the interviewee.

Question 4   The Woreda code should be identified before the survey is initiated. Using the provided code, confirm that the correct code has been entered. Confirm that this code matches the first digit of the household survey number.

Question 5   The Peasant Association (PA) code should be identified before the survey is initiated. Using the provided code, confirm that the correct code has been entered. Confirm that this code matches the second and third digits of the household survey number.

Question 6   The Household code will be taken care of by the team leaders. You should just leave this blank.

Question 7   Write the date of the interview according to the Gregorian calendar in the format DD/MM/YY so if it is done August 29, 2002 it should be 29/08/02

Question 8   Write the time the interview started in hours and minutes using a 12-hour Western system using PM and AM as appropriate. So if the interview starts at 09.30 in the morning the cell will appear as _____:_____, 09 must be written in the first part, and 30 in the second part → 09 : 30 am.

Question 9   When the interview is done you should write down the time at which the interview was completed following the same instruction as for question 8.

Household survey
number   The household survey number will be completed by the team leaders.

Section 1.   Household Identification

The purpose of this section is to identify all persons who are considered HH members as well as their socio-demographic conditions such as gender, age, schooling and relationship with HH head.

TABLE 1.1 HOUSEHOLD MEMBERS

The first step in filling in this table is to list first and second name of all members who usually live together (for more than three months during the year) and share income and expenses by asking the first question. If there are exceptions such as people that got married just within the last two months or that had a child within the last two months you should include them within the HH. *We would like to know about you and your family. Can you please tell us about all the members of your family starting with yourself?* To each person, a code number (already written in the very first column) will be automatically attributed and this number will identify the correspondent person for the entire survey. The first person listed should always be the interviewee and he/she will consequently be identified with n. 1. If, then, for instance his eldest child is called Demissie Tesama and is listed in the third row, with code number 3, Demissie will always be identified by code number 3 whenever the survey refers to this HH member.

You should start by listing all of the household members and then filling in each row at a time. So you ask questions 2-7 for the first person and then all the questions for the second person and then the third person, etc.

Question 1 List all members of the household remembering that the house is the unit, which eats together and generally shares income and expenses. Household members include anyone that has lived in the house for more than six months of the year. This includes all family members, extended family members and non-family members that live in the household. HH members should preferably be listed respecting the following order: Interviewee (household head) → His/her spouse → Children from the oldest to the youngest → Children in law → Parents → Parents in law → Other relatives → Other persons who are considered HH members. Remember that none of the names of the family members will be included in the data set.

Question 2 For each HH member, you should ask his or her relationship to the HH head and enter the relevant code in the row corresponding to that member.

Question 3 You should note the gender of each HH member, 0 for male and 1 for female, in the appropriate cell.

Question 4 Ask the age of the HH member in completed years. That is, we want years completed so if a person's is 39 years and 10 months you would write 39. If a child is younger than 1 year old, just write 0. If a person is uncertain of their exact age, ask them to estimate the age.

Question 5 This question investigates the total years of full time, formal schooling completed by each HH member. This refers to the level of schooling completed by the HH member. If a person started a year at school, college or university, but did not complete it, you should not consider that year. If a person was full time but repeated a year, you should not include that year. Only include the highest year completed.

Section 2.   Household assets

The purpose of this section is to collect information on the relative wealth of households and the assets they have available for production.

TABLE 2.1:AGRICULTURAL ASSETS

The first table lists a series of agricultural assets to which a code number has been given. Questions should be asked for each agricultural asset included in the table and then you should ask the farmer if they own other agricultural assets not included in the table.

Question 1 Ask how many of each of the assets the HH, or any member of the household owns. In case the interviewee owns only a portion of the asset, you should include the fraction owned. So if for instance the HH owns 3 plow, 1 dongora, 1 backpack sprayer and a tractor together with another HH, you should write 3 in the cell correspondent to plow, 1 in dongora cell, 1 in the backpack sprayer cell, 0.5 in the tractor cell and 0 in all the other cells. Note that if a household keeps animals in a room of their home this should be considered a stable.

Question 2 The value in Birr should then be attributed to each of the assets owned based on the amount that the farmer would be willing to pay for the implement today. We want to know the market value of the total portion of the assets owned. In our example, in correspondence to the plow cell we want to have the value of 3 plows if bought today, while in the tractor cell we want to know the value of half tractor if bought today. To estimate this value, you may ask the farmer how much he spent on the asset and how many years ago he bought it. You could then ask him how much he would pay for it today.

TABLE 2.2:NON-AGRICULTURAL ASSETS

This table is structured exactly as the previous one with the only difference that it refers to non-agricultural assets such as Radio, Bicycle, Kerosene Lamp etc. Refer to those notes if you have any questions.

TABLE 2.3:PRIMARY RESIDENCE

The primary residence is the dwelling place where most of the family lives. You should identify the primary residence before asking these questions.

Question 1 Ask about the roof of the primary dwelling place and enter the correct code.

Question 2 Ask about the floor and enter the correct code.

Question 3	Ask about the walls and enter the correct code. In many cases, earth is used to holed together the brick or stone. Even though this is the case, these walls should be considered to be made of brick or stone not earth.
Question 4	Ask whether the house' walls are painted or not. Use 1 if they are painted and 0 if they are not.
Question 5	Ask if the HH has a latrine on the household compound.
Question 6	Ask if the HH has electricity access. If access is only occasional, such as a few hours a day, you should still enter a Yes answer if the HH has any access.
Question 7	Ask how many rooms the primary residence has. A room is an area within the house separated from other areas by a wall or set of walls and occupied by household members. Rooms reserved for animals should not be included.
Question 8	This question investigates the primary water access that the household has for most of the year. You should ask where the HH normally obtains its water. In the house, means inside the house or immediately outside the house in the household compound. A nearby well or public table means a source that is within a one hour round trip distance from the household, but outside the household compound. A distant well ort public tap takes more than one hour for a complete trip.

TABLE 2.4:LIVESTOCK ANIMALS

This table asks information on all livestock and animals owned by the HH. The structure is similar to the previous tables so the first column lists a series of animals with correspondent codes. Questions should be

Question 1	For each of these livestock/animals, ask how many of each type listed the HH owns. Here again if partially owned the fraction should be indicated. For instance the HH might own 3 beef cattle, 2 oxen, 6 chickens and a 0.50 share of a camel with their relative.
Question 2	For each of the livestock/animals owned, total value in Birr should attributed as if ALL of these animals were sold today. So if 3 beef cattle are owned then the total value of selling all 3 should be listed.

Section 3.   Organizational affiliation

This section seeks to understand the level of organization and social ties households have including what associations/organizations HH members belong to, what religious or social group, what kinship/clan (if any) and particularly if they participated in any of HCS program.

TABLE 3.1 HCS

This table is to collect information on participation by HHs in Hararghe Catholic Secretariat (HCS) seed program, and, for participating household, the types of benefits they received and their views on the program. A participating household is one that has worked with HCS in the regular seed program or seed multiplication program and has a contract to work with HCS.

Question 1	The very first question determines whether the HH ever participated in an HCS seed program. If the HH did not participate, go to question 2. If the household did participate go to question 3 and the table below. Remember that the farmer must have contract with HCS to be considered a participant.
Question 2	This question investigates the reason why the HH never participated in any HCS seed program. Possible answers are included on the code sheet under Non-participation code. You should ask the question and then match the answer to the possible answers. If you are asking this question, it means the HH did not collaborate with HCS and, therefore, once this question is answered we can move to Table 3.2.
Question 3	This is the first of a series of questions that inquire about HCS seed program participation. You should ask how many years ago did the HH first started collaborating with HCS. This is the number of years before 2002 so if they started this year you should put 0.
Question 4	HCS has been implementing 2 different seed programs in this area that we are interested in: the regular seed program that consists of cleaning and distributing seeds, and the seed multiplication program that refers to people that act as a seed multiplier which will thereafter use their seed to distribute to other farmers. We want to know to which of the HCS seed program did the interviewee participate. In this question, you ask if they participated in the regular seed program.

Question 5   Ask if they participated in the seed multiplication program.

Question 6   This question explores whether or not the varieties introduced by HCS are new to the farmer. A variety that is new to a household is one that the household has never planted before.

Question 7   In this question, you ask the HH if they considered the seed obtained from HCS better than their own seed. This could be because the seed itself was of higher quality or because the varieties provided were better. If they consider the seed better, put 1 for yes and go to question 9; otherwise put 0 for no and go to question 10.

Question 8   If the HH thought the seed provided by HCS was better, we want to know why. In this question, we explore the main reason for considering the seed is better. You should ask the question and then match the answer to the code.

Question 9   This question explores the reason why the HH started collaborating with HCS. You will find coded answer in the code sheet under *participate code*. You should ask the question and then match the answer to the code.

Question 10   It is possible that the HH collaborated with HCS in the past but is not collaborating with HCS anymore. In this question, you ask whether they are still actively collaborating. If so, write 1 for Yes in the cell and go to question 13. If not, write 0 for No and go to 12

Question 11   This question explores the reasons why they stopped collaborating. Options are listed in the code sheet under *stop collaboration.*

Question 12   Asks how many times per year on average did someone in the HH attend meetings, workshops or other activities organized by HCS per year. You should indicate the average number of times per year when the HH was active with the program.

Question 13   HCS through its different programs and activities provides various kinds of assistance such as seed provision, technical assistance, input provision (such as fertilizers and pesticides), training, workshop etc. In this question, we want the HH to list assistance received by households in order of importance to his/her family. You should ask the question, listen to their response and ask them to rank the assistance in order of importance. If there are less than five forms of assistance, leave some cells blank.

Question 14   Ask the farmers perception regarding the benefit of the HCS program.

Question 15   As part of the HCS seed program, HHs have to repay the seed they obtained. In this question, we explore whether this is a problem. Ask whether the HH ever had any problem with this repayment.

TABLE 3.2: ORGANIZATIONAL CONTACT (OTHER THAN HCS)

Besides HCS, it is possible that, in the last 10 years, some of the HH members have been collaborating with other organization or had contact with the extension service or received other kinds of technical assistance. In this table, we explore this possibility.

Question 1   This question asks if anyone in the HH interacted with outside organizations other than HCS. These organizations could include government extension services, universities, NGOs, international organizations, etc. If the answer is No, after writing 0 in the cell, you are asked to go to Table 3.3. If, on the contrary, the answer is Yes, write 1 in the cell and go to question 2.

Question 2   If you are asking this question, it means that someone in the HH did participate with an outside organization or received assistance or was in contact with an extension service. In this question, you identify the name of the organization. You should write down the names of all organizations before proceeding. Please write in capital letters and clearly.

Question 3   Ask the type of organization.

Question 4   In this question, you should identify which member of the household participated using the code from Table 1.1. If more than one member of the household works with the organization, put the organization in two separate rows and answer the questions for each HH member. The code for the household member is in the first column of Table 1 before the name. Note that a HH member may work with more than one organization.

Question 5   Please indicate the number of years the HH member collaborated with this organization. If it is a fraction of a year, round off to the nearest year. For example, if it less than 6 months put 0 years and if it is between 6 and 18 months put 1 year.

Question 6	Ask the number of years ago he/she quit working with the organization. If the HH member is still collaborating, you must write 0.
Question 7	We need to know what this collaboration was about. Ask the focus of the organization. If the organization has more than one purpose, you can note that and write down up to three options in order of importance. If less than three focuses, only fill in the necessary cells. If agriculture is not considered one of the focuses, go to the next table. If agriculture was a focus, go to 8.
Question 8	In case the focus of the organization was agriculture, we need to know the main activities of the organization. A maximum of three activities should be indicated. If there are more than three, list the three primary activities. If less than three, only fill in the necessary cells.

TABLE 3.3: ASSOCIATIONS

The structure of this table is very similar to that of the previous one but this one is related to associations. What we would like to know is, therefore, whether anyone in the family belongs to any form of association or other village group.

Question 1	Here again, we start by asking if anyone in the HH belongs to an association or other village group. An association can be any formal or informal group with a particular purpose and with which the household member has contact on a regular basis. If the answer is No write 0 in the cell and move to the next table; otherwise write 1 and proceed to question 2.
Question 2	Ask the name of the association and write it down clearly.
Question 3	This question asks about the type of association or village group. Here again if the association has more than one focus, you can write down up to three options.
Question 4	At this point, we want to identify which member of the family participated with the group or association. To identify this member you need to use the HH member codes used in the very first column of table 1.1. If more than one member of the household works with the association, put the association on two separate rows and answer the questions for each HH member.
Question 5	You should indicate the number of years the HH member has been active in the group.
Question 6	Ask what is the frequency of meetings and activities within this group. A series of option is suggested as possible answers. You should, thus, listen to the answer, look for the code number that corresponds to the answer and write that code number down.
Question 7	Finall,y we need to know if the HH member ever had a leadership role within this group.

TABLE 3.4: PARTICIPATION, RELIGION, ETHNICITY, KINSHIP

This table concludes this section with the aim to collect any other information on participation and social activities done by any member of the family as well as to identify better family's religion, ethnicity etc.

Question 1	This question determines whether any member of the HH ever participated in public works such as building schools, roads, bridges etc. Public works are works that are done by a community often in collaboration with the government to help improve the infrastructure of the community.
Question 2	This question asks whether the HH regularly exchanges labor with other HHs. For example, does the HH often have other HHs assist with planting or harvest and in return assists those households.
Question 3	This question asks whether the HH provided assistance to another HH in times of need over the last three years. For example, in the last three years did they provide help to another HH with obtaining seed or with food when they didn't have any?
Question 4	This question asks whether the HH exchanges seeds with other farmers on a regular basis.
Question 5	Ask what is the religious group of the HH. If HH members belong to different religious groups record the religious group of the head of HH.
Question 6	Ask the ethnicity of the HH. If HH members belong to different ethnicities record the ethnicity group of the head of HH.
Question 7	Ask if the HH belongs to a particular kinship or clan group. If HH members belong to different kinship or clan group record the group of the head of HH.

Section 4.   Land Identification

This section aims at identifying the land operated by the HH since the beginning of the year, that is January 2002. In particular the section differentiates between:

→ owned land, which is land owned by HHs or where the HH have long term usufruct right,

→ rented in or borrowed land, and;

→ rented out or loaned land.

The purpose is to determine the land area owned and operated by the HH.

TABLE 4.1: TOTAL LAND OPERATED

To fulfill this purpose, the section opens with a first table that identifies in general the land operated distinguishing by owned, rented or loaned in and rented/loaned out stating *"We would like to ask you about all the land your family operates. Can you please identify the different plots of land that your family has operated since January 2002?"* It is quite difficult to get accurate land data so it may be best to draw a picture on the bottom of the page of all the plots owned or operated by the household. This will make it easier to determine the total number of plots owned and operated. This table should be filled horizontally since for each question we want to know the total number of plots and total hectares.

Question 1   In the first row, we want to know the total number of plots owned and the area of owned land where by owned we mean also long-term usufruct rights. A plot is a continuous plot of land managed by the same person. In the "Number of plots" column of the first row (identified with code A1) you should write the total number of plots owned while in the "Total Hectares of all plots" column we want the corresponding total hectares. The most common unit of land measure is timad, which corresponds roughly to 1/8 hectare of land, so about 8 timad correspond to 1 hectare. Even if the farmer gives you the land area expressed in timad, you need to convert it into hectares. So if the HH owns 5 plots of land that are 20 timad in total, you should enter 5 in A1 and 2.5 hectares in A2 (20/8=2.5).

Question 2   The second question (in the 2nd row) enquires about rented or loaned out plots. This refers to a plot that is owned by the household but is operated by someone outside the household. Note that if a plot is only partially rented out, it should be treated as a separate plot in question 1. Consequently if the first row included a part of plot that is rented out it should be changed accordingly. Again, the "Number of plots" column (A3) requires total number of plots rented out while "Total Hectares of all plots" column (A4) requires the correspondent total hectares. In the example below, the HH rented 1 plot of land out for a total of 0.5 hectares (about 4 timad).

Question 3   The third row refers to additional plots of land operated by the household but not owned but not owned by the household since the beginning of 2002. For this row again the "Number of plots" column (A5) requires total number of plots rented in while the "Total Hectares of all plots" column (A6) the correspondent total hectares. In the example, the HH operates 2 plots of land on 0.75 hectares that the HH does not own.

Question 4   In the 4th row, the total land operated will be identified. The "Number of plots" column identifies the total number of plots operated (A7) while the "Total Hectares of all plots" identifies the corresponding total number of hectares operated (A8). This amount should be determined based on the previous answers. You should calculate in the "Number of plots" column the value for A7, which equals A1-A3+A5. Similarly, for the "Total Hectares of all plots" column you should calculate A8, which equals A2-A4+A6. Once this calculation is made you should verify this amount with the farmer and, if the amount is correct you should check the box below. If there is a mistake, you need to go through the table again and determine where the mistake is. In our example, the HH said is operating 6 plots of land for a total of 2.75 hectares.

	No.		**Total Hectares**	
1. In total, how many plots and hectares of land do you own?	(A1)	**5**	(A2)	**2.5**
2. How many of these plots and how many hectares are rented or loaned out to other farmers?	(A3)	**— 1**	(A4)	**— 0.5**
3. How many additional plots did you use/rent but not own since the beginning of 2002? And how many hectares?	(A5)	**+ 2**	(A6)	**+ 0.75**
4. Total plots operated since January 2002	(A7)	**= 6**	(A8)	**= 2.75**

Check that A7=A1-A3+A5	___X___	*Check that A8=A2-A4+A6*	___X_____

TABLE 4.2 OWNED PLOTS: DESCRIPTION

In this and the next table, a detailed description of the plots is given. In this table we are focusing on owned plots as described in question 1 of Table 4.1. These should be identified and described in a way that the total owned plots should match with A1 in numbers and with A2 in hectares.

Question 1	In this question, you want to ask about all the plots identified in Table 4.1 question 1 (A1). If household has a name for the plot or a way of describing it (rocky plot, steep plot, far way plot) should you write this down in the cell starting in the cell coded 1 and going down to 2, 3…. The pre-written code given to each plot will be used to identify that same plot for all the rest of the survey. You should be sure that the number of plots described here are the same as the number reported in A1 in Table 4.1.
Question 2	For each of the plot listed in the first column, you should ask the corresponding hectares and write them down in the second column. Remember to convert timad or any other measure into hectares. You should be sure that the total hectares of the plots listed here are the same as the number reported in A2 in Table 4.1.
Question 3	The third question investigates plots rented or loaned out. Remember that, as explained in the previous table, those should be treated as separate plots. If a plot is rented out the code to write in the first sub-column is 1 while in the second sub-column correspondent hectares should be written. If, on the contrary, the plot in question is not rented out the code to use is 0 and in the hectares sub-column you should skip this part. You should be sure that the number of plots rented out match the number of plots reported in A3 of Table 4.1 and the number of hectares matches the number reported in A4 of table 4.1.

Before going to question 4 you should check that plot described and listed match with those identified in table 4.1. So the very last row of these 4 questions asks to sum up what written in each column. So:

→ The total of the first column, that refers to total number of owned plots and that is identified with B1, should match with A1 in Table 4.1.

→ The total of the 2nd column, that refers to total hectares of land owned and that is identified with B2, should match with A2 in Table 4.1;

→ The total of 3rd column, that refers to number of plots owned but rented out and that is identified with B3, should match with A3 in Table 4.1;

→ Finally the total of the 4th column, that refers to total hectares owned but rented out and that is identified with B4, should match with A4 in Table 2.1.

Question 4	Starting with this question, the survey tries to investigate more about the plot. This question asks whether the plot under investigation is irrigated or not. Consequently the answer would be coded with 0 if the plot is not irrigated and with a 1if the plot is irrigated.
Question 5	For each plot listed in this table, this question inquires about the soil texture. In case the interviewee will give two different answers, for instance loam/sandy, you should always try to figure out the prevalent one.
Question 6	This question refers to soil color. Here again it can be simply a color as identified in the codes provided (black, brown, red, grey) or it can be a middle way between two different colors. In case the interviewee will give two different answers, for instance red/brown, you should always try to figure out the prevalent one.
Question 7	This question asks the interviewee to define the quality of the soil on this plot as distinguished by Poor fertility, moderate fertility good fertility.
Question 8	Ask about altitude of the plot as compared to the village. We need to know whether the plot is lower, at the same altitude or higher altitude than the village within the PA
Question 9	This question inquires about the slope of plot. The options provided by the survey are the following: TERRACED, GENTLE SLOPE, MODERATE SLOPE, STEEP SLOPE, AND DEPRESSION. A terraced plot is one, which would have a slope but has been flattened by years of working the land or man-made barriers. A gentle slope is one which is flat or near flat with a slope of <= 5%; a moderate slope is >5% but <=20% and finally a steep slope >20%. A depression is an area, which goes down towards the middle like a bowl.

Question 10   Ask how far away each of the plots is from the house. The unit of measure we want is time required to walk form farmers' home to each plot. Ask how long it will take to get from the house to the plot.

TABLE 4.3: PLOT USED AND RENTED (NOT OWNED): DESCRIPTION

This table and Table 4.4 should only be completed if the household has rented or borrowed a plot that the household does not own. To do this table, you should have put a value other than zero in Table 4.1 for question 3. The purpose of this table is to investigate the plots used but not owned (borrowed, rented-in received as gift and so on...) in the same way owned plots have been investigated in the previous table. The instruction for this table are exactly the same as for the previous one with the exception that question 3 of the previous table is not here relevant and thus not included. Furthermore, the calculations are slightly different.

Question 1   In this question, you want to ask about all the plots identified in Table 4.1 question 3 (A5). If household has a name for the plot or a way of describing it (rocky plot, steep plot, far way plot) should you write this down in the cell starting in the cell coded 1 and going down to 2, 3.... The pre-written code given to each plot will be used to identify that same plot for all the rest of the survey. You should be sure that the number of plots described here are the same as the number reported in A5 in Table 4.1.

Question 2   For each of the plot listed in the first column, you should ask the corresponding hectares and write them down in the second column. Remember to convert timad or any other measure into hectares. You should be sure that the total hectares of the plots listed here are the same as the number reported in A6 in Table 4.1.

Before going to question 4 you should check that plot described and listed match with those identified in table 4.1. So the very last row of these 4 questions asks to sum up what written in each column. So:

→   The total of the first column, that refers to total number of owned plots and that is identified with B5, should match with A5 in Table 4.1;

→   The total of the 2nd column, that refers to total hectares of land owned and that is identified with B6, should match with A6 in Table 4.1;

→   Finally, calculate the following sum: add to B6 (total hectares rented-in) B2 (total hectares owned) and subtract to these eventual hectares rented-out as from B4 and write the result in B7. At this point, you need to go back to Table 4.1 and check that B7 is equal to A8 and if so he/she will tick in the correspondent cell, otherwise will need to go through again and check for mistakes.

See below for an example:

Sum the total number of rows filled in B5 2	_Sum_ B6 0.75
Check that the total number of rows filled in B5=A5 ____X____	_Check that the sum of B6=A6_ ____X____

Question 3   Starting with this question, the survey tries to investigate more about the plot. This question asks whether the plot under investigation is irrigated or not. Consequently the answer would be coded with 0 if the plot is not irrigated and with a 1if the plot is irrigated.

Question 4   For each plot listed in this table, this question inquires about the soil texture. In case the interviewee will give two different answers, for instance loam/sandy, you should always try to figure out the prevalent one.

Question 5   This question refers to soil color. Here again it can be simply a color as identified in the codes provided (black, brown, red, grey) or it can be a middle way between two different colors. In case the interviewee will give two different answers, for instance red/brown, you should always try to figure out the prevalent one.

Question 6	This question asks the interviewee to define the quality of the soil on this plot as distinguished by Poor fertility, moderate fertility good fertility.
Question 7	Ask about altitude of the plot as compared to the village. We need to know whether the plot is lower, at the same altitude or higher altitude than the village within the PA
Question 8	This question inquires about the slope of plot. The options provided by the survey are the following: TERRACED, GENTLE SLOPE, MODERATE SLOPE, STEEP SLOPE, AND DEPRESSION. A terraced plot is one, which would have a slope but has been flattened by years of working the land or man-made barriers. A gentle slope is one which is flat or near flat with a slope of <= 5%; a moderate slope is >5% but <=20% and finally a steep slope >20%. A depression is an area, which goes down towards the middle like a bowl.
Question 9	Ask how far away each of the plots is from the house. The unit of measure we want is time required to walk form farmers' home to each plot. Ask how long it will take to get from the house to the plot.

TABLE 4.4: LAND TENURE AND CONTRACTS IN PRODUCTION

Like the last table, this table should only be completed if the households rented in land. In this table, we explore the type of rental contract on the land

Question 1	This question asks you to list again all plots identified in the previous table, Table 4.3. Be certain you list them in order so that the plot code remains the same.
Question 2	The plots listed here are rented plots so first ask who owns the plot and the relationship to the household.
Question 3	Ask about the length of the contract -- Belg season, Meher season, or for the entire year etc. Note that we are only interested in this year (rented for the Gregorian year 2002)
Question 4	This question asks about the type of contract that regulates each of the rented plots listed in this table. A fixed rent contract is one in which the farmers agrees to pay a certain amount of cash or a certain amount of output to use a plot of land. If the contract is FIXED RENT you should write 1 in the cell associated with the plot and ask questions 5-6. A share contract is when the owner of the land is given a share of output in payment. The owner usually also contributes a share of the inputs. If the contract is SHARED CROP you should write 2 on the row correspondent to the plot and ask questions 7-10. If the land is borrowed, it means there is no clear payment for the land although a "gift" may be provided to the owner. If the land is BORROWED (code 3), received as a gift or under any OTHER KIND OF AGREEMENT (code 4), you should ask questions 11-12.

<div align="center">FIXED RENT</div>

Question 5	In this question you ask if the fix rent is paid in cash, kind of both. If it is paid in cash you should rite 0, in kind you should write 1 and if it is both then 3. .
Question 6	Linked to the previous question at this point we want to know the amount that must be paid and accordingly to previous answer, it will be in Birr if the answer was payment in cash, while it will be KG if the payment was in kind (or both if it was both). The unit of measure the households use could be kuna or tanika but this should be converted to KG since we would like to have a common unit of measure such as KG. If there's no other plot to ask about you can move to section 5.

<div align="center">SHARED CROPPED</div>

Question 7	If the harvest is shared we want to know who decides on what to plant, the owner, the renter, or both.
Question 8	Ask the share of seeds provided by the owner and provided by the renter both for this particular plot expressed in percentage (%). If all of the seed is provided by the owner then put 0% and 100% while if the seed is provided solely by the renter put 100% and 0%.
Question 9	Similarly, ask what the share of other inputs such as fertilizers and pesticide provided by the owner and by the renter. If all of inputs are provided by the owner then put 0% and 100% while if all are provided by the renter put 100% and 0%.
Question 10	Asks about the share of the harvest between renter and owner still expressed in percentage. If there's no other plot to ask about you can go to section 5.

Question 11   If land is borrowed an explicit payment is not require. However, quite often something is given to the owner. Here we ask about this. The interviewee could give a gift, which could be either in kind or in cash, or could offer exchange labor, or nothing at all or something different. Ask about this.

Question 12   We want to know whether the interviewee expects that he/she will be able to use the land for the foreseeable future since the way of managing the plot could differ whether one expects to have and use it for a long time in the future or to give it back next year. Ask about this. If there's no other plot to ask about you go to section 5.

Section 5.   Crop production

This section examines the HH's agricultural production for the entire year 2002. We will collect detailed information on agricultural production, however, some the information will be gathered in the second round of the survey. General information on all crops is collected first (Table 5.1) followed by detailed information on wheat and sorghum.

TABLE 5.1: FARM PRODUCTION

This table focuses on all the crops that have been planted on the farmers operated land.

Question 1   This question asks which annual crops (not varieties) have been planted by the farmer since January 2002 and which perennial crops have been maintained by the farmer on each operated plot. You must link each crop with one of the plots mentioned in section 4. The code for the relevant plot should be taken from section 4. More than one row should be used for any plot with more than one crop. It is important that you keep track of the plots and remind the interviewee what plot it was. Plot codes should be taken from both table 4.2 and 4.3 and write down all plot codes previously identified for instance

Write plots' codes using the same plot codes identified in table 4.2 and 4.3. If more than one crop was planted then put the appropriate plot code for each PLOT CODE	1. What annual crops did you plant since January 2002 or perennial crop have you maintained on each operated plot we discussed in the previous section? *See code sheet for crop code. Do not use variety code.* CROP CODE
1	2
	3
2	1
10	1

This indicates the first 3 plots are owned (and thus are listed in table 4.2) while the 3rd one is rented and thus was listed in table 4.3. It also indicates that two crops were planted on plot 1. It is possible that the interviewee does not remember in which order he listed the plots. In this case and in order to avoid mistakes in data collection, you should try to recall other information for instance: in the first plot you said you own…(*make sure the farmer understood which plot you are talking about),* what crops have you planted since January 2002. Be sure to ask if more than one crop was planted either at the same time or one after the other. Each crop has been identified with a code that is listed in the code sheet under: *Crop code.* Consequently, when the interviewee answer which crop did he/she plant, you should look into the code sheet and use the related code.

It is possible that the farmer did not use the entire plot to plant a crop or that a crop was planted during Belg season and it has been already harvested and something else has been re-planted in the

same plot (including the same crop), and this is the reason why to each plot listed in the first column there are three correspondent rows. If it happens that the farmer planted more than 1 crop, the interviewer will just list each of the crops in the following row by using crop codes. If more than four crops are planted, put the same plot code in the next cell and continue.

Question 2   In case of partial utilization of the plot, we need to know what is the share of the plot used per each crop and this is the purpose of the second question. We need this data in percentage, so if the farmer used the entire plot, you should write 100, if the farmer used a portion, for instance 3/4 of the plot you would write 75. If the crop is intercropped but is planted on the whole plot then you should still put 100%.

Question 3   The farmer may also intercrop for instance maize with haricot bean. Each intercropped plot should be entered in the table separately with the corresponding crop. If the crop is intercropped, enter a 1 in the cell.

Question 4   Asks the date when the crop was planted. We just need the month as indicated in the question. Perennial crops may have been planted last year and if this is the case you should enter the code 0 for "before January 2002. Annual crops should have been planted this year so if it was January 2002 you should use 1, if it was Feb 2002 use 2 and so on.

Question 5   Ask whether the crop is annual or perennial. If perennial enter code 2 and go to question 6 while if annual enter code 1 and go to question 7.

Question 6   If perennial, we want to now the number of times the crop has been harvested this year. After you obtain an answer for this question continue to the next crop or the next table.

Question 7   If annual, we need to know the harvest date or, if harvest has not occurred, the expected harvest date. If the crop failed and will not be harvested then put 0=crop failed and go to question 8.

Question 8   If the crop failed, ask why the reason the crop failed.

Question 9   Ask whether the crop is considered a Belg, Meher or Long season crop.

TABLE 5.2: SORGHUM PRODUCTION: VARIETIES PLANTED BY PLOT

Because of the detailed information required to study seed systems and agricultural biodiversity, it is necessary to focus on a couple crops. In this study, we will focus on sorghum and wheat. In this table, we focus solely on sorghum. In completing this table you should refer back to Table 5.1.

Question 1   From Table 5.1 you should know all the times the farmer planted sorghum since January 2002. Here you list all sorghum plots and since we need to know detailed information per each variety of sorghum planted, we reserved 5 rows for each plot so that if farmers planted more than one variety of sorghum per plot we will get the information we need.

Question 2   Ask the farmer all the varieties he planted on each sorghum plot. For each variety of sorghum planted you will write down name (clearly and in capital letters) and corresponding code as listed in the code sheet under: *sorghum variety codes.* If the code cannot be found, put the code for "other" in the space.

Question 3   This question is to verify the month in which this variety was planted. The month should correspond to the month the crop was planted on this plot noted in Table 5.1

Question 4   Inquires about quantity of seed planted of each variety, expressed in KG, per each of the variety listed. If a unit other than KG is used, you should convert it to KG. If farmers mixed the varieties together ask about the total quantity planted and ask the farmer to estimate the share of each variety in the total. In this way, you can calculate the seed planted for each variety.

Question 5   Since we want to understand the seed system, we want to determine how the farmer acquired the seeds sowed for each of the varieties. It is possible he/she retained part or the entire quantity of seed planted from the previous harvest. It is also possible he/she bought the entire quantity or obtained it from other sources. We want to know how much came from each source. In this question ask, how much of the seed for this variety (quantity in KG) was retained from previous harvests by the farmer. If none, write 0 otherwise the quantity stated by the farmer in KG.

Question 6   This question asks the quantity of seed for this variety that was purchased. The payment for the seed may be delayed and may not be until after the harvest but it should still be considered purchased. If

none, write 0 and go to question 9 skipping 7 and 8. If, on the contrary, a part of seeds sowed was purchased then

Question 7   If purchased, ask how much was spent in total for those seeds in Birr or in kg if the payment was in kind.

Question 8   If purchased ask the source of those seeds using the code sheet under: *Source code.* Be sure not to lead the question and allow the farmer to give an answer.

Question 9   Ask how much of the planted seed of this variety was obtained from other sources such as a gift or for exchange labor etc? If none, write 0 and then go to the last column of the table. If, on the contrary, some KGs were acquired through other sources we would like to know note the amount and go to question 10.

Question 10   Using the source code from the code sheet, ask the where the farmer obtained the seed that was not purchased or retained.

Question 11   For the other seed, ask if he/she had to provide as return for those seeds.

Last column   In the last column, you are required to check that seeds retained (question n 5)+ seeds purchased (question 6) + seeds obtained from other sources (question 9) equal the total amount of seed sowed per each variety (question 4) – that is, 5+6+9=4. Put an X showing you have checked this is true.

TABLE 5.3: SORGHUM PRODUCTION: INPUTS

In each of the following part of Table 5.3, we ask about the use of inputs in sorghum production. Only land preparation and planting are asked in this survey. In the next visit, more details will be asked. .

A   LAND PREPARATION

Question 1   This first column requires you list all sorghum plots identified in Table 5.2 with their attributed codes. Once again you are requested to make sure farmers give answers about the right plot.

Question 2   This question asks which month did the interviewee prepare the land for each of the plots identified. If the month in which the farmer planted the crop was before January 2002, the code to use is 0; it is 1 for January 2002, 2 for February 2002 and so on.

Question 3   It inquires about the total number of persons' labor, including the farmer, that were required for land preparation. Note that land preparation may take more than one day and that the same number of persons may not work everyday. To calculate the total person days you need to know how many days were worked and the total number of persons each day. For example, suppose 5 persons worked the first day, 3 the second and 1 the third. This would make 9 person days.

Question 4   Asks whether any of these days were paid labor. That is, whether any of the labor received payment in cash or kind for their work. If the answer is yes you should put 1 and continue with question 5. If the answer is no, write 0 and go to question 6 skipping 5.

Question 5   Inquires about the number of **paid** (either in Birr or in Kind) adult male, adult female and child labor, required for preparing the land per each of the plots identified. The payment could have been either in Birr or in kind but we don' t want to know the amount they paid in birr or in kind we just want to know the amount of labor.

Question 6   This question asks about the number of exchanged (unpaid) working days used for land preparation. Since there might be a difference in the amount of land worked per day, and thus in the value of working days, depending on whether the worker is an adult male, an adult female or a child under 14 years old, the question distinguishes these three options. Note that the farmer also counts in the total. We want to know the total number of adult male, female or child worked to prepare the land. Note that the total person days included in questions 5 and 6 should equal the person days in question 3.

Question 7   Generally farmers use animal labor to prepare the soil. For this reason, the survey asks how many working days of animal services were used to prepare the soil for every plot listed. A single oxen or other animal or an animal team should be treated the same if they are pulling a single plow. If animal services were not used put 0.

Question 8   Ask about the number of days of tractor services were used for land preparation. If tractor services were not used put 0.

B   PLANTING

This table asks the same questions as PART A above except for planting.

Question 1	This first column requires you list all sorghum plots identified in Table 5.2 with their attributed codes. Once again you are requested to make sure farmers give answers about the right plot.
Question 2	It inquires about the total number of persons' labor (including the farmer) that was required for land preparation. Note that land preparation may take more than one day and that the same number of persons may not work everyday. To calculate the total person days you need to know how many days were worked and the total number of persons each day. For example, suppose 5 persons worked the first day, 3 the second and 1 the third. This would make 9 person days.
Question 3	Asks whether any of these days were paid labor. That is, whether any of the labor received payment in cash or kind for their work. If the answer is yes you should put 1 and continue with question 5. If the answer is no, write 0 and go to question 6 skipping 5.
Question 4	Inquires about the number of **paid** (either in Birr or in Kind) adult male, adult female and child labor, required for preparing the land per each of the plots identified. The payment could have been either in Birr or in kind but we don' t want to know the amount they paid in birr or in kind we just want to know the amount of labor.
Question 5	This question asks about the number of exchanged (unpaid) working days used for land preparation. Since there might be a difference in the amount of land worked per day, and thus in the value of working days, depending on whether the worker is an adult male, an adult female or a child under 14 years old, the question distinguishes these three options. Note that the farmer also counts in the total. We want to know the total number of adult male, female or child worked to prepare the land. Note that the total person days included in questions 5 and 6 should equal the person days in question 3.
Question 6	Generally farmers use animal labor to prepare the soil. For this reason, the survey asks how many working days of animal services were used to prepare the soil for every plot listed. A single oxen or other animal or an animal team should be treated the same if they are pulling a single plow. If animal services were not used put 0.
Question 7	Ask about the number of days of tractor services were used for land preparation. If tractor services were not used put 0.

TABLE 5.4

This table asks the same questions as in table 5.2 but for wheat varieties instead of sorghum varieties. Refer to that section of the guide for questions about this table.

TABLE 5.5

This table asks the same questions as in table 5.3 but for wheat instead of sorghum. Refer to that section of the guide for questions about this table.

Section 6.   Seed System and variety description

This section of the survey tries obtains information about the seed system in the area in which the household is located as well as a description of the varieties grown in the area, their main advantages and disadvantages. This is a critical section since it highlights potential problems with the seed system and with varieties in the area. Since the survey concentrates on sorghum and wheat, the first table will refer only to sorghum while the second table 6.2 will focus attention on wheat.

TABLE 6.1: SORGHUM VARIETIES

This table asks detailed information about all the sorghum varieties planted by the household this year. It seeks to determine the farmers' perceptions of the variety as well how farmers obtain information about varieties and get the varieties. Note that this table goes for two pages.

Question 1   The first column requires listing all varieties of sorghum planted since 2002 in all operated plots. Since the farmer has already provided this information in table 5.2, question 2 (and in table 5.4 question 2 for wheat), you should to go back to table 5.2 and pick up all the varieties listed with their correspondent codes. In order to identify each variety, every row has its own code in the first sub-column. In order to make sure you and the interviewee are talking about the same variety, before writing the code, you should write the name and recall it to the farmer while asking next questions filling in the row. For example, suppose Table 5.2 is filled like this:

1. Plot	2. What variety or varieties of sorghum did you plant on this plot since January 2002? SEE CODE SHEET FOR VARIETY CODES	
PLOT CODE	NAME	CODE
1	Gilda	2
	Wolleita	12
	HB 314	26
2	HH 37	11
	Gilda	2

You should list in the first column of table 6.1 these sorghum varieties as follows:

1. List sorghum varieties planted this year.		
Please refer to sorghum varieties listed in table 5.2 question 2.		
	SORGHUM VARIETY	
	NAME	CODE
1	Gilda	2
2	Wolleita	12
3	HB 314	26
4	HH37	11
5	*Gilda is already listed from a previous plot so there's no need to list it again*	
6		

Note that it is easier to go one variety at a time and ask all the questions for that variety before moving to the next row.

Question 2   This question asks about the characteristics of each variety the interviewee like most. Three is the maximum number of options you can put although you only need to put the number of advantages the farmer notes. For example, if he/she only notes the variety is resistant to drought then put code 8 in the first cell and leave the others blank. To code these characteristics you should look at the code sheet: *Variety advantages.* If the farmer says there are no advantages then probe a bit further. If he insists put the code 0=NO ADVANTAGES NOTED. Be sure not to lead the interviewee to the answers.

Question 3   On the contrary, this question is about the characteristics of each variety that the interviewee does not like. Here again, three is the maximum number of options you can put although you only need to put the number of disadvantages the farmer notes. For example, if he/she only notes the variety is not resistant to drought then put code 8 in the first cell and leave the others blank. To code these characteristics you should look at the code sheet: *Variety disadvantages.* If the farmer says there are no disadvantages then probe a bit further. If he insists, put the code 0=NO DISADVANTAGES NOTED. Be sure not to lead the interviewee to the answers.

Question 4   Ask if he/she considers this variety improved, traditional or mixed. While this may be a scientific fact, we would like to know the farmers perceptions.

Question 5   Recall the name of the variety and then ask how many years he/she has been planting the variety.

Question 6   This question explores whether the farmer would have planted this variety even if rainy conditions where different form this year. We are trying to find out if farmers tend to plant different varieties under different conditions.

Question 7   Ask where the farmer heard about that variety for the first time. For possible answers, you should look at the code sheet under: *source code.*

Question 8   This question is to find out whether a male member of the household, a female member of the household or both decided to plant this variety. If the person decided is the husband, grandfather, son, etc. put 1=male while if it the wife, mother, daughter, etc. put 2=female.

Question 9   This question tries to understand whether the farmer has always been able to get the seed for this variety whenever he/she wanted it. So if the answer is Yes, the code to use is 1; if it is No you should write 0.

Question 10   This question asks the source of seed for this variety the first time the farmer planted the variety. To write the answer you will need to look at code sheet under: *Source code.* If the farmer go it from his father or an older family member you should put 1=family heritage.

Question 11   From time to time, farmers need to renew the seeds of each variety for different reason. For instance because they get contaminated with other varieties, because of disease or low yield etc. Therefore, we would like to know if they needed to do this, why and from what source. This question asks whether, since first getting the variety, if the farmer has ever renewed or replaced this variety from a source other than their own harvest. Note that we are talking about renewing or replacing seeds of the same variety and not switching from one variety to another one.

Question 12   Ask the reason why he/she had to renew the seed.

Question 13   This question explores what the primary source the farmer has used to renew or replace his/her seed for this variety. Use the source code provided on the code sheet.

TABLE 6.1: SORGHUM VARIETIES (continued)

Question 14   This question asks were the interviewee obtained the seed for this variety listed the last time he planted it. The farmer could plant seeds for this variety that were retained from last year or could renew plant seeds for this variety from another source (not retained), or could have done both. If the seed for this variety is renewed, put code 1 and answer questions 15-20 under **NOT RETAINED LAST PLANTING SEASON.** If the seed for this variety is retained, put code 2 and ask questions 21-23 under **RETAINED LAST PLANTING SEASON.** Finally, if you come across a combination of the 2 you should put code 3 and ask all the questions 15-23.

Question 15   If we are asking this question, it means the farmer got the seed for this variety from a source other than his/her own harvest last planting season. Ask how he/she acquires the seeds for the variety.

Question 16   We are interesting in knowing how difficult it was to renew the variety. This question asks how far this source was. The survey wants you to indicate the time required to walk to the seed source in minutes form the interviewee' s house.

Question 17   Related to question 16, this question asks about the means of transportation for seeds of the variety that was renewed.

Question 18   It is possible that, despite getting the seed from the source indicated, he/she would have preferred a different source if that was possible. Ask if there is a preferred alternative source and if so write 1 for yes and go to question 19. Otherwise, write 0 for no and go to question 21.

Question 19   If you are asking this question, it means there is a preferred alternative source. Ask what the source is. To code the answer given by the interviewee, look at the code sheet under: *Source code*.

Question 20   Ask the reason why the interviewee could not get the seeds from this preferred alternative source. Possible reasons are identified and coded within the question.

Question 21   Asking question 21 means that the farmer retained some of the seeds for the variety from the previous harvest. Obviously, the seed that was saved needs to be selected. Ask here who selects the seeds for each variety for planting. Is it a male member, female member or both? If the person decided is the husband, grandfather, son, etc. put 1=male while if it the wife, mother, daughter, etc. put 2=female.

| Question 22 | Selection can be done at different points in time. For instance, it can be done directly in the field before harvest, at harvest, after harvest at or right before threshing or during storage. This question asks when the seed was selected for this retained variety. |

| Question 23 | We want to know what characteristics the selector looks at in deciding which seeds to save for future planting. We are referring to the identified physical traits the selector looks at in selecting the seeds. You should look at the code sheet: *Physical characteristics* to identify answers. It is possible the interviewee provide more than one answer. Three are the maximum number of characteristics that can be identified within this question. Ask them in order of importance. |

TABLE 6.2 WHEAT VARIETIES

Each instruction given in the previous table for sorghum will be applied in this table for wheat. Pay attention to the fact that in this case varieties need to be picked up from table 5.4 question 2 rather than from table 5.2 question 2.

TABLE 6.3: VARIETIES PLANTED IN THE PAST UNDER DIFFERENT RAINY CONDITIONS

This table determines whether households would have planted different varieties if the rain had been different. Note that the question should be asked for both sorghum and wheat.

| Question 1 | This question asks if the farmer would have planted different varieties of sorghum or wheat if rain patterns had been different from this year. Be sure to ask for both sorghum and wheat. If the answer is No, put code 0 and go to Table 6.4. If the answer is Yes, put code 1 and go to question 2. |

| Question 2 | List the varieties of sorghum and wheat that the farmer would have planted under different conditions. Put the sorghum varieties in the top part of the table and wheat in the bottom. |

| Question 3 | For the rest of the questions, it is better to go variety by variety. In this question, you ask under what conditions you would have planted this variety. The question asks |

| Question 4 | Ask if he/she considers this variety improved, traditional or mixed. While this may be a scientific fact, we would like to know the farmers perceptions. |

| Question 5 | Ask where the farmer heard about that variety for the first time. For possible answers, you should look at the code sheet under: *source code.* |

| Question 6 | This question tries to understand whether the farmer has always been able to get the seed for this variety whenever he/she wanted it. So if the answer is Yes, the code to use is 1; if it is No you should write 0. |

| Question 7 | This question asks the source of seed for this variety the first time the farmer planted the variety. To write the answer you need to look at code sheet under: *Source code.* If the farmer got it from his father or an older family member you should put 1=retained/family heritage. |

| Question 8 | This question asks the source of seed for this variety the last time the farmer planted the variety. To write the answer you need to look at code sheet under: *Source code.* If the farmer retained the seed put 1=retained/family heritage. |

| Question 9 | From time to time, farmers need to renew the seeds of each variety for different reason. For instance because they get contaminated with other varieties, because of disease or low yield etc. Therefore, we would like to know if they needed to do this, why and from what source. This question asks whether, since first getting the variety, if the farmer has ever renewed or replaced this variety from a source other than their own harvest. Note that we are talking about renewing or replacing seeds of the same variety and not switching from one variety to another one. |

| Question 10 | Ask the reason why he/she had to renew the seed. |

| Question 11 | This question explores what the primary source the farmer has used to renew or replace his/her seed for this variety. Use the source code provided on the code sheet. |

TABLE 6.4: VARIETIES THAT YOU WOULD LIKE TO PLANT

This table explores whether there are other varieties of sorghum or wheat the farmer would like to plant or is planning to plant.

Question 1   This question asks if there are any varieties of sorghum and wheat the farmer would like to plant or is planning to plant. Be sure to ask about sorghum and wheat. If the answer is No, put code 0 and go to Table 6.5. If the answer is Yes, put code 1 and go to question 2.

Question 2   List the varieties of sorghum and wheat that the farmer would like to plant or is planning to plant. Put the sorghum varieties in the top part of the table and wheat in the bottom.

Question 3   Identify the three main reasons he/she would like to plant this variety. That is, you should ask the farmer why they like the variety and would like to plant it. To code these characteristics you should look at the code sheet: *Variety advantages.*

Question 4   This question asks why the farmer didn't plant this variety.

Question 5   Ask the farmer how he/she knows about this variety. To write the answer you need to look at code sheet under: *Source code.*

TABLE 6.5 RAINFALL PATTERN

This table examines this year's rainfall patterns.

Question 1   For both the Belg and Meher seasons, ask the farmer if the first rains came on time this year.

Question 2   For both the Belg and Meher seasons, ask the farmer if there was enough rain on their fields at the time of planting.

Question 3   In general, ask the farmer to judge the type of year this was in terms of rainfall.

CHECK LIST AND SIGNATURE

After completing the survey you are asked to check over the survey and verify the survey has been completed properly. You then need to sign the survey verifying it accuracy. Finally, you will give the survey to your team leader and he will verify and sign the survey.

TABLE 1.1.A. OPERATED PLOTS OF LAND

The first table identifies in general the total land operated during year 2002. The first two columns summarise total plots of land owned and their area, the following 2 columns refer to total number of owned plots but rented out and corresponding area. 5th and 6th columns refer to total number of plots rented-in and their corresponding area. The last two columns summarise what is expressed in the previous columns.

The land area is expressed in timmad. Unfortunately data were collected in timmad and converted into hectares. Since farmers refer most frequently to timmad we converted the area back into timmad. However, this created some problems with rounding. Therefore, whenever you come across a number with decimal, please round it to the nearest entire number or nearest 0.5.

Let's consider one example:

Survey Number	Total Number of Plots owned		Total area of owned plots in timmad		Total Number of owned plot but rented out		Total area of owned plot but rented out (in Timmad)		Total Number of plots rented-in		Total area of plots rented in (in timmad)		Total number of operated plots		Total area of plots operated (in timmad)	
101114	2		5.04		2		5.04		1		3.04		1		3.04	

You should read this information horizontally, starting from the very first one saying: *In our last visit you said you own 2 plots of land. Is that right?* If the farmer confirms the information, tick in the white part of the column and go to the next one, if he gives a different answer write the correct number and then go to the next column: *You also said that the total area of these two plots is 5 timmad* (as just explained earlier in this case 5.04 should be rounded to the nearest entire number or nearest 0.5. in this case 5 timmad). *Is that correct?* Here, again, if the farmer confirms the information, tick in the white part of the column and go to the next one, if he/she gives a different answer write the correct number and then go to the next column. According to this example it seems the household is renting out the owned plots. So you should say. *Last time you also said these two plots with a total of 5 timmad are rented out. Is that right?* Here, again, if the farmer confirms the information, tick in the white parts of the columns and go to the next one, if he/she gives a different answer write the correct numbers and then go to the next column. Finally in this example it seems the farmer is renting-in one plot of land. Therefore you should say: *However, during our last visit you said you are renting in 1 plot. Is that right?* Once again, if the farmer confirms the information, tick in the white part of the column and go to the next one, if he/she gives a different answer write the correct number and then go to the next column. *And this rented-in plot is a 3 timmad plot (*Please apply the same rounding rule as before). *Is this information you gave us correct?* Once again, if the farmer confirms the information, tick in the white part of the column and go to the next one, if he/she gives a different answer write the correct number and then go to the next column.

The last 2 columns are just a summary of the previous ones and are referring to operated plots of land during the year 2002. Therefore you can double check with farmer and within the table whether the data are correct. If, as in this case the farmer own 2 plots of land of 5 timmad in total but rents it all out, he doesn't operate any of his owned plot (indeed subtracting rented out plot from owned plots give a zero result). However he/she is renting one plot of 3 timmad that he/she operates. So he/she is operating only one rented-in plot of 3 timmad. Here again read the summary instruction contained in the last two columns to farmer and tick in the white part if is correct or write the right number if is is not correct.

In case you need to correct area of land you need to indicate it in timmad, using decimals (at maximum 2 decimal points). So if the farmer owns 3 timmad, you will write 3.0, but he/she the household owns 1.5 timmad you must write 1.5. In case the farmers does not own land, you will write 0.0

TABALE 1.1.B. OPERATED PLOTS OF LAND

Despite the fact that the table is called Operated plot of land, it actually just gives detail on owned and rented-in plots with codes attributed during our first visit and corresponding area in timmad.

Here again*,* land area is expressed in timmad. As just explained, data were collected in timmad and converted in hectares. Since farmers refer most frequently to timmad we converted the area back into timmad. However, this created some problems with rounding. Therefore, whenever you come across a number with decimal, please round it to the nearest entire number or nearest 0.5.

It is very important that this table is consistent with the previous one. Please check for consistency with the previous table: total number of plots and total area should correspond, otherwise please make due corrections. In most cases data collected during the first visit were consistent, however, there are a few examples in which plots details in this second table do not correspond precisely with those included in previous table. THIS IS AN EXCELLENT OPPORTUNITY

TO GET THIS INFORMATION CORRECT, THEREFORE PLEASE CHECK WITH FARMER IN ORDER TO INPUT CORRECT DATA.

In this table each plot has the code that was used during 1st visit: owned plots were coded with numbers from 1 to 9, while rented-in plots were coded with numbers from 10 to 19:

survey number	Own plot code	Owned plots area (in timmad)
101114	1	4.04
101114	2	1

Rented-in plot code	Rented-in plots area (in timmad
10	3.04

Taking the same example, you will say: *So you said you own 2 plots of land; The first plot of land, that we will call plot number 1 is a plot of 4 timmad* (apply the same rounding rule just explained) . *Is that right?* Here again use the white part for confirmation or correction. *The second plot of land, which we will call plot number 2, is of 1 timmad. Is that correct?* Here again use the white part for confirmation or correction. Moreover make sure this table matches with the previous one. In this example it does because we have two plots and their total area is 5 timmad. If for example the second plot was a 2 timmad plot, the total would have been 6 that is different than what the previous table told us. So in this case you should investigate with the farmer what is the correct answer. Going to the rented-in part of the table you will say: *In our last visit you said you are renting in one plot, which we will call plot number 10, of 3 timmad.* Here again check for consistency and for mistakes in the white part.

Unfortunately we did not add empty rows onto the survey form in case there was a mistake in the first round and you need to add information on more plots. This table has as many rows as those corresponding to what the farmer reported on the first round as plots owned and rented-in. However, we need to collect also missing information, therefore, in case in this visit the farmer claims more land that what's written in this table please add information in below rows that you will draw using same shape of above rows.

Table 1.1.C. CROPS PLANTED

This table refers to crop planted in each of the operated plots listed in previous tables. For sorghum and wheat, variety is also specified. If in one of the plots more than one crop has been planted, that plot is listed as many times as crops planted on it.

This table gives again an opportunity for double checking. If any information is missing or mistaken, please write the correct information in the white space.

To follow the same example:

survey number	plot code	crop	sorghum variety	wheat variety
101114	10	sorghum	abdelota	
101114	10	maize		

In this table only plot n. 10 shows up because as we learned from the first table the owned plot has been rented out and therefore is not being operated. Only the rented in is being operated. This is an important information you must check: Do plots included in this table correspond with information provided previously?

In this case you will tell to the farmer: *Can you confirm you have planted sorghum of abdelota variety in the plot we named 10 and that is rented-in (*Use as much information as you need to in order to identify the correct plot. We need to make sure plot codes refer to the correct plot). Here again use the white part of each column for confirmation or for correction. So for example if the farmers has planted sorghum but of a different variety you should look at the code sheet and enter the code of the corresponding variety). *Moreover you also planted maize in the same plot. Is this correct?* Here again use the white part of the column for confirmation or for correction.

Here again we did not preview possible mistakes and therefore this table has as many rows as those corresponding to number of crops planted in each plot. However, we need to collect also missing information, therefore, in case in this visit the farmer claims that before our last visit he/she had planted some other crops than those contained in this table, please add information in below rows that you will draw using same shape of above rows

Remember that we are just recalling information, for additional varieties planted after our 1st visit we will have a specific table.

TABLE 1.2: ADDITIONAL CROPS

During our first visit we collected information on all crops planted since January 2002 and that we have just recalled and confirmed with the farmer through the previous three tables.

With table 1.2 we want to collect remaining information for the year: what has the farmer planted from our last visit up to now.

Question 1   First of all we need to check whether the farmer has planted any crop after our last visit. Therefore the first question explicitly asks if the farmers has planted any crops since our last visit that were not noted in previous tables. If the answer is no, they did not plant any additional crop, write a 0 in the little cell on the side and go to table 1.5 skipping 1.3 and 1.4. If, otherwise, the answer is yes go to question n. 2 because we want to know more about additional crop planted.

Question 2   This question asks which annual or perennial crops (not varieties) have been planted by the farmer since our last visit which were not noted in previous table. Let the farmer list all new crops planted and note them down in the rows of columns 2. Once you have listed all new crops planted, you need to link them to the plot in which they have been planted and need to make sure to use the appropriate code for each plot. In order to understand in what plot did the farmer plant the crop you are referring to, you should use as much information as you can. In previous tables (1.1.A, 1.1.B and 1.1.C) you have a bunch of information about plots operated by the farmer: You know which plots are owned or rented-in and their corresponding area as well as what they planted earlier Therefore once the farmer has listed the new crops planted you need to find out in which plot did the farmer plant it and list the correspondent plot code in the appropriate row in the very first column. Plot codes should be taken from both table 1.1.B and 1.1.C . If the farmer has planted more than one crop in the same plot, list the correspondent plot code as many time as the number of new crops planted.

Write plots' codes using the same plot codes identified in previous visit. Make sure the farmer knows which plot you are talking about PLOT CODE	2. What crops did you plant since our last visit? *See code sheet for crop code. Do not use variety code.* CROP CODE
10	2
10	3

In our example the farmer is operating only one rented-in plot coded with 10 where he has planted wheat (2 stands for wheat) and maize (3 stands for maize) since our last visit. Each crop has been identified with a code that is listed in the code sheet under: *Crop code*. Consequently, when the interviewee answer which crop did he/she plant, you should look into the code sheet and use the related code.

Question 3   It is possible that the farmer did not use the entire plot to plant the crop. In case of partial utilization of the plot, we need to know what is the share of the plot used per each crop and this is the purpose of the second question. We need this data in percentage, so if the farmer used the entire plot, you should write 100, if the farmer used a portion, for instance 3/4 of the plot you would write 75. If the crop is intercropped but is planted on the whole plot then you should still put 100%. Crops are considered intercropped when they are mixed (either broadcast or planted in different rows) but you cannot identify a specific fraction of the plot.

Question 4   If the farmer intercrops (for instance maize with haricot bean) put a 1 in the cell, if he/she doesn't - put a 0. The intercropped plot should be entered in the table separately with the corresponding crop. This information should match up with that contained in previous question. So if you have 2 new crops planted in the same plot and they are intercropped the size of the plot occupied must be 100% and 100% for each of them, but question n. 4 must tell us that they are intercropped, therefore it should be 1 and 1 for each crop.

Question 5   Asks in which month the crop was planted. Because our previous visit was in September, months coded in this question starts from September up to now.

Question 6	Ask whether the crop is annual or perennial. If perennial enter code 2 and go to table 1.3 while if annual enter code 1 and go to question 7.
Question 7	If annual, we need to know the harvest date or, if harvest has not occurred, the expected harvest date. If the crop failed and will not be harvested then put 0=crop failed and go to question 8, if, otherwise it has been harvested or it is expected to be harvest in future months, skip question n. 8 and go to question n.9.
Question 8	If the crop failed, ask why the reason the crop failed, using the codes of option provided within the question. If the reason of failure is not included here, use the option "other" that in this case is coded with a 7.
Question 9	Ask whether the crop is considered a Belg, Meher or Long season crop.

TABLE 1.3: ADDITIONAL SORGHUM PRODUCTION: VARIETIES PLANTED BY PLOT

This table must be completed ONLY IF farmer has planted additional sorghum, as resulting from table 1.2

Because of the detailed information required to study seed systems and agricultural biodiversity, it is necessary to focus on a couple of crops. In this study, we focused on sorghum and wheat and need to collect remaining information on these two crops. In this table, we focus solely on additional sorghum planted since our last visit. So if in previous table (1.2) the farmer said he/she has planted additional sorghum you are supposed to completed these table otherwise go to table 1.5.

Question 10	From Table 1.2 you should know if farmer has planted additional sorghum and if so, how many times. Here you list all new sorghum plots and since we need to know detailed information per each variety of sorghum planted, we reserved 5 rows for each plot so that if farmers planted more than one variety of sorghum per plot we will get the information we need.
Question 11	Ask the farmer all the varieties he planted on each sorghum plot. For each variety of sorghum planted you will write down name (clearly and in capital letters) and corresponding code as listed in the code sheet under: *sorghum variety codes.* If the code cannot be found, put the code for "other" in the appropriate space.
Question 12	This question is to verify the month in which this variety was planted. The month should correspond to the month the crop was planted on this plot noted in Table 1.2
Question 13	Inquires about quantity of seed planted of each variety, expressed in KG, per each of the variety listed. If a unit other than KG is used, you should convert it into KG using conversion factor included in the code sheet. If farmers mixed the varieties together ask about the total quantity planted and ask the farmer to estimate the share of each variety in the total. In this way, you can calculate the seed planted for each variety.
Question 14	Since we want to understand the seed system, we want to determine how the farmer acquired the seeds sowed for each of the varieties. It is possible he/she retained part or the entire quantity of seed planted from the previous harvest. It is also possible he/she bought the entire quantity or obtained it from other sources. We want to know how much came from each source. In this question ask, how much of the seed for this variety (quantity in KG) was retained from previous harvests by the farmer. If none, write 0 otherwise the quantity stated by the farmer in KG.
Question 15	This question asks the quantity of seed for this variety that was purchased. The payment for the seed may be delayed and may not be until after the harvest but it should still be considered purchased. If none, write 0 and go to question 9 skipping 7 and 8. If, on the contrary, a part of seeds sowed was purchased then:
Question 16	If purchased, ask how much was spent in total for those seeds in Birr or in kg if the payment was in kind.
Question 17	If purchased ask the source of those seeds using the code sheet under: *Source code.* Be sure not to lead the question and allow the farmer to give an answer.
Question 18	Ask how much of the planted seed of this variety was obtained from other sources such as a gift or for exchange labor etc? If none, write 0 and then go to the last column of the table. If, on the contrary, some KGs were acquired through other sources we would like to know, therefore note the amount and go to question 10.
Question 19	Using the source code from the code sheet, ask the where the farmer obtained the seed that was not purchased or retained.

Question 20   For the other seed, ask if he/she had to provide as return for those seeds.

Last column   In the last column, you are required to check that seeds retained (question n 5) + seeds purchased
                     (question 6) + seeds obtained from other sources (question 9) equal the total amount of seed sowed
                     per each variety (question 4) – that is, 5+6+9=4. Put an X showing you have checked this is true.

TABLE 1.4: ADDITIONAL SORGHUM PRODUCTION: INPUTS

In the following two parts of Table 1.4, we ask land preparation and planting activated done for additional sorghum
planted. Also in this case*: This table must be completed ONLY IF farmer has planted additional sorghum, as resulting
from table 1.2 and 1.3 otherwise go to table 1.5.*

C   LAND PREPARATION

Question 21   This first column requires you list all ADDITIONAL sorghum plots identified in Table 1.3 with their
                     attributed codes. Once again you are requested to make sure farmers give answers about the right
                     plot.

Question 22   This question asks which month did the interviewee prepare the land for each of the plots identified
                     from our last visit up to now, so from September 2002 up to February 2003.

Question 23   It inquires about the total number of persons' labor, including the farmer, that were required for land
                     preparation. Note that land preparation may take more than one day and that the same number of
                     persons may not work everyday. To calculate the total person days you need to know how many
                     days were worked and the total number of persons each day. For example, suppose 5 persons
                     worked the first day, 3 the second and 1 the third. This would make 9 person days.

Question 24   Asks whether any of these days were paid labor. That is, whether any of the labor received payment
                     in cash or kind for their work. If the answer is yes you should put 1 and continue with question 5. If
                     the answer is no, write 0 and go to question 6 skipping 5.

Question 25   Inquires about the number of **paid** (either in Birr or in Kind) adult male, adult female and child labor,
                     required for preparing the land per each of the plots identified. The payment could have been either
                     in Birr or in kind but we don' t want to know the amount they paid in birr or in kind we just want to
                     know the amount of labor.

Question 26   This question asks about the number of exchanged (unpaid) working days used for land preparation.
                     Since there might be a difference in the amount of land worked per day, and thus in the value of
                     working days, depending on whether the worker is an adult male, an adult female or a child under 14
                     years old, the question distinguishes these three options. Note that the farmer also counts in the total.
                     We want to know the total number of adult male, female or child worked to prepare the land. Note
                     that the total person days included in questions 5 and 6 should equal the person days in question 3.

Question 27   Generally farmers use animal labor to prepare the soil. For this reason, the survey asks how many
                     working days of animal services were used to prepare the soil for every plot listed. A single oxen or
                     other animal or an animal team should be treated the same if they are pulling a single plow. If
                     animal services were not used put 0.

Question 28   Ask about the number of hours of tractor services were used for land preparation. If tractor services
                     were not used put 0.

D   PLANTING

This table asks the same questions as PART A above but it refers to planting.

Question 29   This first column requires you list again all "additional" sorghum plots identified in Table 1.3 with
                     their attributed codes. Once again you are requested to make sure farmers give answers about the
                     right plot.

Question 30   It inquires about the total number of persons' labor (including the farmer) that was required for land
                     preparation. Note that land preparation may take more than one day and that the same number of
                     persons may not work everyday. To calculate the total person days you need to know how many
                     days were worked and the total number of persons each day. For example, suppose 5 persons
                     worked the first day, 3 the second and 1 the third. This would make 9 person days.

Question 31	Asks whether any of these days were paid labor. That is, whether any of the labor received payment in cash or kind for their work. If the answer is yes you should put 1 and continue with question 5. If the answer is no, write 0 and go to question 6 skipping 5.
Question 32	Inquires about the number of **paid** (either in Birr or in Kind) adult male, adult female and child labor, required for preparing the land per each of the plots identified. The payment could have been either in Birr or in kind but we don' t want to know the amount they paid in birr or in kind we just want to know the amount of labor.
Question 33	This question asks about the number of exchanged (unpaid) working days used for land preparation. Since there might be a difference in the amount of land worked per day, and thus in the value of working days, depending on whether the worker is an adult male, an adult female or a child under 14 years old, the question distinguishes these three options. Note that the farmer also counts in the total. We want to know the total number of adult male, female or child worked to prepare the land. Note that the total person days included in questions 5 and 6 should equal the person days in question 3.
Question 34	Generally farmers use animal labor for planting. For this reason, the survey asks how many working days of animal services were used for planting for every plot listed. A single oxen or other animal or an animal team should be treated the same if they are pulling a single plow. If animal services were not used put 0.
Question 35	Ask about the number of hours of tractor services were used for planting. If tractor services were not used put 0.

TABLE 1.5: TOTAL SORGHUM PRODUCTION INPUTS

Table 1.5 and all remaining tables on sorghum production are now referring to ALL sorghum planted since January 2002, which means information collected during our first visit + additional sorghum eventually planted and listed in above tables (1.1.C and 1.3)

A   WEEDING AND CULTIVATION

Question 36	This first column requires you list all plots in which sorghum has been planted since January 2002. So you need to go back to table 1.1.C that contains information on sorghum planted from January 2002 up to our first visit and list here all plots were farmers had planted sorghum at that time. Moreover, you need to list also additional sorghum planted since our first visit and just listed in above table 1.3 and 1.4. Once again you are requested to make sure farmers give answers about the right plot. Please pay attention that it is possible that the interviewee has planted twice in the same plot, and if that the case that plot needs to be listed twice: plots must be listed as many times as sorghum has been planted in those plot since January 2002 and as resulting from previous+ this visit.
Question 37	This question asks how many times has the household weeded in each of the plot and how many times were spent for cultivation in each of the plot listed since planting. If the farmer has never weeded and/or cultivating put 0 and go down to the plot listed in the next row or, if there are no other plots listed, go to section B. If otherwise the farmer has weeded and/cultivated a certain number of times, write the number down and ask the following question.
Question 38	Inquires about the number of **paid** (either in Birr or in Kind) adult male, adult female and child labor, were required for weeding and/or cultivating in each of the plots identified. The payment could have been either in Birr or in kind but we don' t want to know the amount they paid in birr or in kind we just want to know the amount of labor and we are referring to the total number of adult male, female and children days were spent for weeding and/or cultivating. So if 2 men for 4 days, that's a total of 8 adult male days. If 5 women worked the first day, 3 the second and 1 the third. This would make 9 adult female days. If no children worked that is a 0 child day. Always remember to put a 0 and to not leave the cell bank.
Question 39	This question asks about the number of exchanged (unpaid) working days used for weeding and cultivating. Since there might be a difference in the amount of land worked per day, and thus in the value of working days, depending on whether the worker is an adult male, an adult female or a child under 14 years old, the question distinguishes these three options. Note that the farmer also counts in the total. We want to know the total number of adult male, female or child worked to prepare the land.

B   IRRIGATING

Question 40   Here again, the first column requires you list all plots in which sorghum has been planted since January 2002. So you need to go back to table 1.1.C that contains information on sorghum planted from January 2002 up to our first visit and list here all plots where farmers had planted sorghum at that time. Moreover, you need to list also additional sorghum planted since our first visit and just listed in above table 1.3 and 1.4 or just list the same plots listed in the previous part of this table for weeding and cultivation. Once again you are requested to make sure farmers give answers about the right plot.

Question 41   This question asks how many times has the household irrigated in each of the plot listed since planting. If the farmer has never irrigated the plot put 0 and go down to the plot listed in the next row or, if there are no other plots listed, go to section C. If, otherwise, the farmer has irrigated the plot a certain number of times, write the number down and ask the following question.

Question 42   Inquires about the number of **paid** (either in Birr or in Kind) adult male, adult female and child labor, were required for irrigating in each of the plots identified. The payment could have been either in Birr or in kind but we don' t want to know the amount they paid in birr or in kind we just want to know the amount of labor and we are referring to the total number of adult male, female and children days were spent for irrigating. So if 2 men for 4 days, that's a total of 8 adult male days. If 5 women worked the first day, 3 the second and 1 the third. This would make 9 adult female days. If no children worked that is a 0 child day. Always remember to put a 0 and to not leave the cell bank.

Question 43   This question asks about the number of exchanged (unpaid) working days used for irrigating. Since there might be a difference in the amount of land worked per day, and thus in the value of working days, depending on whether the worker is an adult male, an adult female or a child under 14 years old, the question distinguishes these three options. Note that the farmer also counts in the total. We want to know the total number of adult male, female or child worked to prepare the land.

Question 44   We would also like to know what is the dominant form of irrigation per each of the plot listed. Once asked this question to the farmer, write code corresponding to the option he/she gave in the appropriate cell.

Question 45   Finally we also want to know what is the dominant source of irrigation used for the plot: is it a river, a lake etc. In this question the instruction tells you to check within the code sheet, under irrigation what are the options provided for source of irrigation and use the appropriate code.

C   APPLICATION OF FERTILIZERS AND PESTICIDES

Question 46   Here again, the first column requires you list all plots in which sorghum has been planted since January 2002 as indicated in part A and C of this table. So just list the same plots listed in the part A and B of this table (1.5) Once again you are requested to make sure farmers give answers about the right plot. Please pay attention that it is possible that the interviewee has planted twice in the same plot, and if that the case that plot needs to be listed twice.

Question 47   This questions asks how many times has the farmer applied fertilizers in each of the plot listed since planting. If fertilizers have been applied write down the number of times, if they haven't been applied write 0 and go to next question. In considering number of times fertilization must be considered as an overall activity. Therefore if for example the farmer applied fertilizers at planting but this took 3 days in a row, that must be considered 1 time. The purpose was to fertlize at planting so it is 1 time.

Question 48   It asks how many times has the farmer applied pesticides in each of the plot listed since planting. Here, again if pesticides have been applied write down the number of times applying the same principle described above, if they haven't been applied write 0. If a zero has been inputted both for question n. 2 and for question n. 3 which is no fertilizers nor pesticides have been applied, then go to next plot listed or to D if there are no other plots listed. If, otherwise, wither fertilizers or pesticides have been applied, which is either question 2 or question n. 3 or both of them have a number different than zero, then go to question n. 4.

Question 49   Inquires about the number of **paid** (either in Birr or in Kind) adult male, adult female and child labor, were required for applying fertilizers AND pesticides in each of the plots identified. The payment could have been either in Birr or in kind but we don' t want to know the amount they paid in birr or in kind we just want to know the amount of labor and we are referring to the total number of adult male, female and children days were spent for application of fertilizers and pesticides. So if 2 men for 4 days, that's a total of 8 adult male days. If 5 women worked the first day, 3 the second and 1 the

third. This would make 9 adult female days. If no children worked that is a 0 child day. Always remember to put a 0 and to not leave the cell bank. If no days have been paid put zeroes.

Question 50   This question asks about the number of exchanged (unpaid) working days used for applying fertilizers AND pesticides. Since there might be a difference in the amount of land worked per day, and thus in the value of working days, depending on whether the worker is an adult male, an adult female or a child under 14 years old, the question distinguishes these three options. Note that the farmer also counts in the total. We want to know the total number of adult male, female or child worked to prepare the land. If no unpaid days have been worked put zeroes.

Question 51   In this question we want to know what is the total quantity of fertilizers expressed in KG have been used in each plot listed, distinguished in DAP, UREA and Organic (Organic fertilizer include MANURE) and what is the total corresponding cost for the amount applied in Birr. In case the interviewee does not remember either the total cost or the quantity, use code 999. So for example if the farmer applied organic fertilizer such as manure that he/she did not buy and cannot provide and estimate, please use 999. Same thing if the interviewee cannot figure out the quantity applied: use 999. All the three fertilizers must be asked and if any of them was not applied zeros must be entered both in the quantity and in the total cost section, don't leave it blank.

Question 52   Similarly in question n. 7 we want to know what is the total quantity of pesticides have been used in each plot listed, and what is the total corresponding cost for the amount applied in Birr. Pesticides have been distinguished in solid (for which the quantity is expressed in KG), Liquid (for which the quantity must be expressed in Liters) and Tablets (for which the amount must be expressed in number). In case the interviewee does not remember either the total cost or the quantity, use code 999. All the three types of pesticides must be asked and if any of them was not applied zeros must be entered both in the quantity and in the total cost section.

Question 53   This question aims at knowing where did the farmer get the fertilizers and/or pesticides. The code sheet, under source code, must be used for coding the answer. If two different source are detected enter both of them separated by a comma.

D   HARVEST AND TRESHING

Question 54   Here again, the first column requires you list all plots in which sorghum has been planted since January 2002 as indicated in part A and C of this table. So just list the same plots listed in the part A and B of this table (1.5) Once again you are requested to make sure farmers give answers about the right plot. Please pay attention that it is possible that the interviewee has planted twice in the same plot, and if that the case that plot needs to be listed twice.

Question 55   This question asks in what month did the farmer harvest in each of the plots listed. It is possible that the farmers has harvested more than once. If this is the case you should enter appropriate code in correspondent row separated by a comma. Codes considered go from January 2002 up to February 2003, in case the crop failed put 0 and go to next plot listed or to next table if there are no other plot listed, if the plot has been harvested continue with following question. Similarly if the plot has not yet been harvested use code 15 and go to next plot listed or to next table if there are no other plot listed, if the plot has been harvested continue with following question.

Question 56   Inquires about the number of **paid** (either in Birr or in Kind) adult male, adult female and child labor, were required for harvesting and threshing in each of the plots identified. The payment could have been either in Birr or in kind but we don' t want to know the amount they paid in birr or in kind we just want to know the amount of labor and we are referring to the total number of adult male, female and children days were spent for harvest and threshing. So if 2 men for 4 days, that's a total of 8 adult male days. If 5 women worked the first day, 3 the second and 1 the third. This would make 9 adult female days. If no children worked that is a 0 child day. Always remember to put a 0 and to not leave the cell bank.

Question 57   This question asks about the number of exchanged (unpaid) working days used for harvesting and threshing. Since there might be a difference in the amount of land worked per day, and thus in the value of working days, depending on whether the worker is an adult male, an adult female or a child under 14 years old, the question distinguishes these three options. Note that the farmer also counts in the total. We want to know the total number of adult male, female or child worked to prepare the land.

Question 58   Farmers might use animal labor for threshing. For this reason, the survey asks how many working days of animal services were used for threshing. One oxen threshing for 2 days should be considered 2. If animal services were not used put 0.

TABLE 1.6: TOTAL SORGHUM PRODUCTION: OUTPUT

This table's aim is to find out the quantity of sorghum harvested and the use made out of it.

Question 59   Here again, since we are referring to all sorghum planted since January 2002 and we want the information again at plot level, you are requested to list in the first column of this table all plots listed in table 1.5.

Question 60   Inquires about the total quantity of sorghum harvested on each plot listed. Please pay attention that it is possible that the interviewee has harvested twice in the same plot, and if that the case that plot needs to be listed twice. If the crop failed put 0 while if not yet harvested ask for an estimation. In both these two cases once inputted 0 or the estimation go to the next plot, or to the next table if there are no other plots listed.

Once collected the data about the total quantity of sorghum harvested we want to know in detail what has been the used of this total quantity. Therefore Questions from 3 to 9 inquire about the use of the output. Remember that when a quantity is asked it must be converted into KG using conversion factor provided in the code sheet.

Question 61   Asks how much (expressed in kg) of the output obtained per each plot listed was used or set aside for home consumption. If none put 0 and continue with following question, if the farmer does not know or does not remember use 999 and go to next question.

Question 62   Asks how much (expressed in kg) of the output obtained per each plot listed was used or stored for next planting season. If none put 0 and continue with following question, if the farmer does not know or does not remember use 999 and go to next question

Question 63   Inquires how much (expressed in kg) of the output obtained per each plot listed was used or set aside for livestock feed. If none put 0 and continue with following question, if the farmer does not know or does not remember use 999 and go to next question

Question 64   Inquires how much (expressed in kg) of the output obtained per each plot listed was provided to a sharecropper or to the landlord (in case the land has been rented in) If none put 0 and continue with following question, if the farmer does not know or does not remember use 999 and go to next question.

Question 65   Asks how much (expressed in kg) of the output obtained per each plot listed was used to pay laborers. If none put 0 and continue with following question, if the farmer does not know or does not remember use 999 and go to next question

Question 66   Inquires about how much (expressed in kg) of the output obtained per each plot listed was returned to HCS or to other sources. If none put 0 and continue with following question, if the farmer does not know or does not remember use 999 and go to next question.

Question 67   Finally question 9 asks how much (expressed in kg) of the output obtained per each plot listed was sold. If none put 0 and go to question 13 (skip 10-12). If the farmer give an answer different than 0 enter the number and continue with question n. 10. Similarly, if he/she doesn't know or doesn't remember use 999 continue with following question.

Questions 10-12 are about sorghum output sold.

Question 68   This question wants to know what is the amount in Birr the farmer receive as payment for selling that output. Use 999 if the interviewee does not remember.

Question 69   This question asks in what month was that output sold. Months' codes are provided within the question.

Question 70   Finally we would like to know who bought the output, to whom did the interviewee sold the output. Here again you are supposed to use codes listed in the code sheet under recipient code.

Question 71   Finally, since farmers sometimes employ straw or fodder for different uses we want to know which these uses area, which is the main use the interviewee made out of fodder or straw collected from each plot listed.

Question 72   The last column is not a question to be asked to the farmer but a check that you are requested to do. In question n. 2 you have collected the total quantity of sorghum harvested. Of this output you have also collected its different uses. Obviously, the sum of the quantity employed for each different uses should sum up to the total quantity. So if the farmer has harvested 100 kg of sorghum, he/she could set aside 70 kilos for home consumption, 5 kilos for next planting season, 0 kilos for livestock, 20 kilos sold, 5 kilos returned to HCS and 0 kg for day laborers and for sharecropper. Now

70+20+5+5=100. Make this check when you have filled in each row of this table and then go to next table.

TABLE 1.7: TOTAL SORGHUM PRODUCTION: STRESSES AND CRISES

Here again we are referring to all sorghum production since January 2002, so list again all plots listed in previous table 1.5 and 1.6.

A   STRESSES

Once listed all plots in the first column,

Question 2	Inquires about stresses to which the sorghum planted has been subject during this year production in each of the plot listed. The possible stresses have been identified in the code sheet under stress. To answer this question use the code corresponding to the type of stress answered by the farmer. If it is not included in the options provided use the option "other" that, in this case, has been coded with 8. If the sorghum production for that plot was not subject to any stress put 0 and go to next plot if there is some plot listed, otherwise go to section B.
Question 3	If the interviewee said the sorghum production has been subject to some stress that you have noted in column n 2 you must also ask question n 3 which wants to know whether the household has lost any of the harvest due to previously mentioned stresses. If the answer is yes put 1 and continue with following question. If the answer is no write 0 and ask question n 5 skipping question 4.
Question 4	This question must be asked only if the answer to the previous one was yes. Therefore, if the household has lost part of the sorghum production per each plot because of the stress mentioned, we want to know the percentage of the harvest that was lost per each plot listed. Express the amount in percentage so if the farmer say the amount in quantity you need to convert it into percentage of the harvest. If he/she said he/she had harvested 80 kilos and here says that 20 kilos were lost, this means that 25% was lost and therefore 25 must be written in the appropriate cell.
Question 5	Finally we would like to know how many times has the type of stress noted in column 2 since the downfall of the last regime.

B   CRISES

Question 6	In this question we want to know whether the household has eaten any of the seeds that were set aside for next planting season, which can indicate the household is subject to a difficult period. If the answer is yes put a 1 in the cell and ask next question, if otherwise the answer is no put a 0 in the cell and go to table 1.8.
Question 7	This question must be asked only if the answer to previous question was yes, thus if there is a 1 in the previous column. Because the farmer said the family has eaten seeds that had been set aside for next planting season, we want to know, here, where is he/she going to get the seeds for next planting season. Use the code sheet (source code) to code the answer given by the farmer.

TABLE 1.8: SORGHUM POST HARVEST STORAGE

This final table inquires about the storage process of sorghum production for the year 2002.

Question 8	Asks whether the farmer has stored the sorghum harvest separately by varieties. Which is: was each variety of sorghum harvested for 2002 stored separately? Put a 1 for yes and a 0 for no.
Question 9	Moreover we want to know sorghum seeds harvested for 2002 were stored separately from grain harvested for 2002. Here again put 1 for yes and 0 for no.
Question 10	In question number 3 we want to know who is responsible for storage. It is possible that a particular person, for example the wife or one of the children is responsible for storage and we want to know who is this person. If, otherwise, the whole family is responsible for storage use the option all. If more than one person is responsible use different option corresponding to each person. You can give up to a maximum of three options.
Question 11	In this question we want to know whether the household has faced any storage losses during the year. If yes put 1 and ask following question. If no put 0 and go to question n. 7 (therefore skip 5 and 6).
Question 12	This question must be asked only if the answer to the previous one was yes (1). Thus, if the interviewee said his/her household has faced storage losses we would like to know how much was

lost. We are here referring to an estimate of the total quantity, so the codes provided for this question are: SOME, MOST, ALL.

Question 13   This question asks what are the causes of storage loss. A series of option is provided and if farmer give more than one option you can note down up to three options.

Question 14   In this question we ask whether the farmer apply any treatment to avoid storage losses. Here again if the answer to the question is yes put down 1 and ask next question. If, otherwise, the answer is no, write 0 and go to next table.

Question 15   If the interviewee said he/she applies treatment to avoid storage losses, we want to know what kind of treatment does he/she apply and this is the purpose of this question.

Question 16   Finally in case a treatment was apply we would like to know the cost of the treatment in Birr. If the respondent does not know or does not remember try to get an estimate, otherwise use code 999.

TABLE 1.9: ADDITIONAL WHEAT PRODUCTION, VARIETIES PLANTED BY PLOT.

This table asks the same questions as in table 1.3 but for wheat varieties planted since our first visit that were noted in table 1.2. Please refer to instruction provided for table 1.3 taking care of listing here just additional wheat varieties planted since our previous visit, instead of sorghum varieties.

TABLE 1.10: ADDITIONAL WHEAT PRODUCTION: INPUT

A   LAND PREPARATION and

B   PLANTING

This table asks the same questions as in table 1.4 but for wheat planted since our first visit that were noted in table 1.2. Please refer to instruction provided for table 1.4 taking care of listing here just plots were additional wheat has been planted since our last visit and that must be listed already in table 1.9.

TABLE 1.11: TOTAL WHEAT PRODUCTION: INPUTS

A.   WEEDING
B.   IRRIGATING
C.   APPLICATION OF FERTILIZERS AND PESTICIDES
D.   HARVEST AND THRESHING

Table 1.11. and all remaining tables on total wheat production are now referring to ALL wheat planted since January 2002, which means information collected during our first visit + additional wheat eventually planted and listed in above tables (1.1.C and 1.9).

All section of Table 1.11 ask the same questions as in table 1.5 but refers to total wheat planted. Please refer to instruction provided for table 1.5 to answer questions in this table paying attention that we are now referring to wheat rather than to sorghum

TABLE 1.12: TOTAL WHEAT PRODUCTION: OUTPUT

This table asks same questions as table 1.6 but in this case we are referring to all wheat planted since January 2002 and that should be already listed in table 1.11.
Please refer to table 1.6 for instruction for this section, just paying attention that we are now referring to wheat and not to sorghum

TABLE 1.13: TOTAL WHEAT PRODUCTION: STRESSES AND CRISES

This table is the same as table 1.7 but for wheat production. List again all plot that should be already listed in table 1.11 and look at instruction provided for table 1.7 to answer this table.

TABLE 1.14: WHEAT POST HARVEST STORAGE

Again this table is the same as table 1.8 but this time for wheat and not for sorghum,
Please refer to instructions provided for table 1.8 to answer the questions in this table.

Section 7.   *VULNERABILITY AND COPING*

TABLE 2.1: VULNERABILITY SINCE THE DOWNFALL OF THE LAST REGIME

The point of this table is to get a measure of how vulnerable the household has been to various types of crises and disasters over the recent past. The time frame we are interested in is since the downfall of the last regime, which is something everyone will remember. Since it is often difficult to remember what has happened over the last 10 years, we've used a major event that happened in the past as a way of helping the farmers to understand the time period we're interested in.

Question 17	The point of this question is to understand if the household has suffered major production losses over The past 10 years. Major production losses are defined as being at least one third of the total expected harvest. Ask the farmer if he/she has lost a significant part of their harvest due to each of the reasons listed in A through F. You are supposed to list each of these reasons to the interviewee. If the answer is no, put 0 and go to next causes, if it is yes ask first question n. 2 and then proceed to the following cause.
Question 18	Ask the number of times the farmer has lost a significant portion of the harvest due to each reason listed over the time since the downfall of the last regime. Please note – if you have coded yes to any of the causes of harvest loss in question 1, then you must fill in a number of times for the same cause in question 2. Likewise, it you've coded no to one of the causes in question 1, then you should have a blank in the same row.
Question 19	This question is the same as question 1, but for livestock instead of crops.
Question 20	This question is the same a question 2, but for livestock instead of crops.
Question 21	The point of this question is to understand whether the household has experienced a significant loss in assets (besides livestock) since the downfall of the last regime. The main focus of the question is on loss of land, but if there's been a loss in other assets besides land or livestock, these could be reported as well. Other assets might include jewelry, or household appliances (ex. Radio) and tools. Ask the farmer if they've experienced any loss of land or other assets due to each of the possible causes listed. List examples of other assets to help them understand.
Question 22	The point of this question is to understand whether the household has suffered any loss of its members since the downfall of the last regime due to the various reasons listed. It is a very sensitive question so you need to ask in a respectful manner. Losses are divided into adult men, adult women and children under age 14 (either boys or girls). Note the number who have been lost due to various possible reasons. If none, mark zero.

TABLE 2.2. CURRENT VULNERABILITY

This table is focusing on the current situation of the household- how vulnerable are they right now? These questions are also very sensitive, please be respectful when asking.

The sources of current vulnerability are chronic illness and hunger among household members. Chronic illness could include HIV AIDs, malaria, tuberculosis etc. In general it should be a disease that is serious enough to reduce the current or near future capability of the household member to work.

Question 23	Ask how many adult male household members are currently suffering from a chronic illness.
Question 24	Ask how many adult female household members are currently suffering from a chronic illness.
Question 25	Ask how many children household members (under age 14) are currently suffering from a chronic illness.
Question 26	Ask if there is anyone in the household who, over the past month, did not eat for at least two complete days because there was not enough food.

TABLE 2.3 COPING STRATEGIES

The point of this table is to understand what measures the household is taking in order to deal with the drought. We'd like to understand the implications of the coping strategy for the long term development potential of the household. In the table we ask the first, second and third most important coping strategy the household is currently adopting in the face of the drought.

Question 27   Ask the farmer to list the first, second and third most important coping strategy they are adopting in dealing with drought, after reading them the list of possible options from the code sheet. The first should be the most important measure they take to cope with drought, followed by the second and third. PLEASE NOTE THAT ONLY ONE CODE PER BOX CAN BE ENTERED.

TABLE 2.4 RAINFALL PATTERN DURING THE YEAR 2002

The point of this table is to get a farm level measurement of the rainfall pattern over the past year. This will be used as one measurement of household vulnerability and will complement the data collected on round 1.

Question 28   Ask the farmer about the amount of rain that fell on his/her fields over the past year during the growing season and enter the appropriate code.

Question 29   Ask the farmer if the rain stopped on time on his/her field over the past year 2002 and enter the appropriate code.

Question 30   Ask whether it rained near harvest time. Use 0 for no and 1 for yes.

Question 31   Ask the farmer to assess this year's production conditions according to the codes given.

TABLE 2.5 LIVESTOCK/ANIMALS

The point of this table is to get an inventory of the number of livestock the household currently owns. Ask the household how many of each type of livestock they own listing all animals in the table. IF the interviewee does not own one or more of the animal listed write 0 do not leave the cell blank.

Section 8.   HOUSEHOLD CHARACTERISTICS

TABLE 3.1: HOUSEHOLD DEMOGRAPHICS

In this table we confirm the composition of the household collected during the first visit. Here, information on the following variables is pre printed, in grey cells, on the survey form: relationship to household head, first name, sex, age, and completed years of education. Beginning with the household head, confirm the correctness of the pre printed information. If the information in a particular grey cell is correct, put a tick mark in the corresponding white space; if not, instead write the correct information in the white space. Use the name of the household member in combination with printed characteristics to help the respondent identify about whom you are asking.

Ask Questions 1-7 first for each listed household member first. The respondent mentions that there are other household members who were not recorded in the first visit, make a mental note as we will ask about them in Table 3.2. After confirming (and possibly correcting) the information each household member, next ask Questions 8-10, row by row.

Question 8   Here we confirm whether the specified household member is still in fact a member of the household. If no, mark zero and then continue to Questions 9 and 10. If yes, mark 1 and proceed to the next household member.

Question 9   For those that no longer form part of the household, we inquire as to why. If the answer is death (=1), then we proceed to the next household member. If any other reason, continue to Question 10.

Question 10   Here we inquire as to whether each household member having left the household has sent remittances, either in cash or in kind, to the household since they left. If in kind, calculate jointly with the respondent the equivalent amount in Birr.

TABLE 3.2: CHANGES IN THE HOUSEHOLD

In this table we inquire as to whether the household has acquired new household members since our first visit in September 2002.

Question 11   We first ask whether the household has any new members. Remember, our definition of being a household member is "The house is the unit which eats together and generally shares income and expenses. Household members include anyone that lived in the household for more than six months of the year." If the answer is yes, mark 1 and proceed to Question 2. If the answer is no, mark 0 and continue with Table 3.3.

The rest of the questions in this table ask information about the new members.

Question 12   First and second names.

| Question 13 | Where did this new member come from. |

Question 13   Where did this new member come from.

Question 14   Kinship relationship with the household head.

Question 15   Gender

Question 16   Age, in completed years. That is, we want years completed so if a person is 39 years and 10 months old you would write 39. If a child is younger than 1 year old, just write 0. If a person is uncertain of their exact age, ask them to estimate the age. If still unable to produce their name, try to help them comparing the member in question to the ages of the other household members.

Question 17   Years of completed formal schooling. If no schooling, put zero. This refers to the level of schooling completed by the household member. If a person started a year at school, college or university, but did not complete it, you should not consider that year. If a person was full time but repeated a year, you should not include that year. Only include the highest year completed.

TABLE 3.3: MEMBERS WHO LEFT THE HOUSE FOR GOOD

This table refers to children of the household head who were not living with the household in September 2002, and continue to not live in the household. That is, former household members who have left for good.

Question 18   We first want to know if they have any sons or daughters, still alive, who have left for good. We ask them to list these children. If none, simply put a line through this column and proceed to Table 3.4. If yes, then write down the first name of this child or children, and continue by row with the rest of the questions in this table.

Questions 2-6 are asked about these sons or daughters.

Question 19   Sex

Question 20   Age in completed years

Question 21   Here we ask the year in which the son or daughter left the household for good. For example, 1996.

Question 22   Where does the son or daughter currently live. The response is coded.

Question 23   Finally, how much did the son or daughter send in remittances, both cash and in kind, during 2002. Put 0 if none, and 9999 if does not know.

TABLE 3.4 HOUSEHOLD MEMBERS WHO LEFT THE HOUSE TEMPORARILY

The objective of this table is to ascertain as to whether any current household member leaves the community where his house is located, continuously for at least a month, for work reasons. In other words, does any current household member travel and sleep elsewhere for a least a month at a time.

Question 24   We first inquire whether any current household member fits these conditions. If the answer is no, mark a zero and proceed to Table 3.5. If the answer is yes, mark a 1 and proceed to Question 2.

Question 25   Here list those members who left the household temporarily to work, using the corresponding household member codes found Tables 3.1 and 3.2.

Questions 3-5 refer to each of these household members:

Question 26   For how many weeks of last year did the household member migrate?

Question 27   Where did that household member go to (with coded destinations).

Question 28   In what labor activity was the migrant employed while temporarily absent from the house. (see coded sheet)

TABLE 3.5 OFF FARM WAGE/SALARAY INCOME

The objective of this Table is to capture the income (from wage/salary) which the household receives from labor off farm activities. We refer only to household members older than 7 years of age. Our definition of wage/salary income includes any payment or wages whether cash or in-kind (including food for work programs) and including those who leave the household temporarily for employment reasons (from Table 3.4)

Question 29   We first inquire whether anyone in the household has earned wages. If no, mark zero and proceed to Table 3.6 If yes, mark 1 and proceed to question 2. If the farmer responds no, please provide some examples of wage employment to help him/her understand what you are asking.

Question 30   Here we list the household members with wage labor activities, using the household member codes from Tables 3.1 and 3.2. Then proceed row by row with remaining questions. If individuals worked at more than one job, please repeat the household member code on a separate line for each job.

Questions 3-7 ask about each labor activity.

Question 31   Within which economic sector, agriculture (=0) or non agriculture (=1) did the household member work?

Question 32   What form of employment did the wage activity take? That is, how stable was the employment? (see coded options)

Question 33   How much time, in weeks, did the household member work in this activity since the beginning of 2002?

Question 34   Was payment in cash (=1) or in-kind (=2)

Question 35   How much was earned in total from this labor activity since the beginning of 2002. The values should be expressed in Birr; if payment was in-kind, calculate the value in cash. Put 99999 if does not know.

Getting an answer to this question may require helping the farmer construct the income. That is, asking what the wage rate was, multiplying by the time worked, and obtaining an answer. Do not hesitate to help the farmer in this fashion. This is a good example of when you need to dig to obtain good information.

TABLE 3.6 NON AGRICULTURAL SELF-EMPLOYMENT

Here we attempt to obtain information on small business activities run by the household.

Question 36   Ask if anyone in the household is involved in any of the following small business activities. Ask specifically for each type of small business, mentioning examples when necessary. If no one participates in any of these, place a line through column 2 and proceed to Table 3.7. If yes, then fill Q2-10 for the corresponding row.

Question 37   For each activity, list the household member code (from Tables 3.1 and 3.2) for up to 3 household members participating in this activity.

Question 38   Here ask the number of total days per month that the listed household members worked on this activity since the beginning of 2002. This is the total (of all 3 possible household members; thus if 3 members participated full time, 30 days a month, then the response should be 90. If all 3 participants were half time, then the answer should be 45 days.

Question 39   Ask what is the approximate amount of revenue earned from this activity since the beginning of 2002. If not known, put 99999. Getting the correct response will require helping the farmer construct the revenue. Break it into small pieces, by asking how much revenue is generated daily, weekly or monthly.

Question 5-8 refer to Expenses.

Question 40   Ask whether any non family members were employed as paid labor on the family enterprise. If no, mark zero and move to column 8; if yes, mark 1 and proceed to column 6 otherwise, if no put 0 and go to question n. 7.

Question 41   For those that employed paid labor, how much has been spent on paid labor since January 2002, in Birr. If paid in-kind, please convert to Birr. If not known, mark 99999.

Question 42   Here ask whether any implements or inputs were purchased for this activity since Jan. 2002. This includes food, tools, materials etc. depending on the activity. If no, mark zero and move to col. 8, if yes, mark 1 and go to col. 9.

Question 43   For those that purchased implements of inputs, how much has been spent since Jan 2002 in Birr, If paid in-kind, please convert to Birr. If not know, mark 9999. The farmer may need help in reconstructing these costs. Please provide examples of potential costs.

Question 44   Here we calculate net income. Subtract from total revenue (column 5) the costs of column 7 and 9. Please confirm with the respondent. If the figure does not seem plausible, please reconfirm with the household.

TABLE 3.7 OTHER INCOME SOURCES

Here we attempt to gather information on a variety of income sources above and beyond that collected in previous tables.

Question 45	Please list each of the potential other sources, asking if the household received income or in-kind gifts since Jan 2002. If no, mark zero and continue with the next source. If yes, mark 1 and go to Q2.
Question 46	If the household received income from one of those sources, ask the total amount received since Jan. 2002 in Birr. If paid in-kind, convert to Birr. Mark 99999 if not known. Note that the cell for Question 2 (of Food for Work) is greyed out. This is to avoid double counting, as food for work income should have been picked up in Table 3.6

Section 9. **SECTION 4: FINANCE**

The point of this section is to understand the household's access to credit.   This means we want to know the credit they have received, as well as the credit they would like to have received but didn't.

TABLE 4.1 LOANS

The point of this table is to get the history over the past year of the household's request and receipt of credit. Please note that credit includes both cash and in-kind loans.

Question 47	Ask if anyone in the household asked for credit from any of the sources listed during year 2002. Please read all sources listed. If no one requested credit to any of the sources listed, which is if there are all zeros in this column, go to table 4.2. If there was a request to any of the sources listed, go to question n. 2 for that source.
Question 48	Ask if the credit request was accepted for the sources which the household requested it from.
Question 49	If the household requested credit, but was refused (e.g. if credit was requested from any source in question 2, but not accepted as reported in question 3, then ask why the credit was refused. See code sheet for possible responses. Once asked this question which means that the hh requested a credit but was refused, please go to table 4.2.
Question 50	Ask the farmer what the main purpose of the credit was. See code sheet for possible responses.
Question 51	If the household received credit, then ask which month they received it in. Note that January and February 2003 should be included. Also note that if there if the household has responded yes to any source of credit in question 3, then you should have a month coded in the corresponding row in question 6.
Question 52	Ask what was the length of the loan in months repayment. Indicate number of months. For repayment if there is a fixed date established. Use 98 if the repayment must be done at the end of harvest. Use 99 if there is no fixed date.
Question 53	Ask whether the loan was in kind or in cash. As you can notice within in kind types identified we would also like to know what kind of "in kind" was the credit requested for.
Question 54	At this point we want to know what was the amount of the loan requested both in kind and in cash. Note the amount in kg (using conversion factor in the code sheet) if in kind. Note the amount in Birr if in cash. In case the interviewee does not know or does not remember use 999.
Question 55	At this point you will ask how much the household will have to pay back including the interest, so this is the total amount that has to be paid back. Please be careful to note down the <u>total amount</u> that the household has to pay back. If the interviewee will answer the amount he/she has to pay back per month you will need to calculate the total that must be paid back. So if the household has to pay back 30 Birr per 7 months, the total will 210 birr. Here again note the amount in kg if in kind credit and in birr if it was cash.
Question 56	Final question asks whether at this time the farmer could have obtained the credit under the same terms and conditions of the current loan. Once asked this table you should skip table 4.2 and go to table 4.3

TABLE 4.2: ACCESS TO CREDIT

This table inquires about the reasons why the Household did not ask for credit during year 2002. Therefore it must be completed only if the interviewee did not ask for credit to any of the sources listed in the first column of table 4.1, which is the case if there are only zeroes in the second column of table 4.1.

Question 57   Ask what is the reason why the farmer did not ask for credit during year 2002. In case he/she didn't need it (first option within codes provided) go to table 4.3 otherwise ask the following question.

Question 58   Ask how would the interviewee use the money if he/she could get the credit. Give up to three options if he/she give more than one.

TABLE 4.3 EARLIER CREDITS

This last table is about credit received by the interviewee during previous years.

Question 59   Ask whether the household has received any credit in 2001. If no, write 0 and go to question n. 3. If yes write 1 and ask following question:

Question 60   What was the source of the credit received in 2001. Code the answer with given options

Question 61   This question is like question n. 1 but ask about credit received in 2000. If no credit write 0 and the questionnaire is done. If yes write 1 and ask final question.

Question 62   What was the source of credit received in 2000. Code the answer with given options.

CHECK LIST AND SIGNATURE

After completing the survey first thank the farmer and tell him or her that you appreciate very much the time they have given you and we will be sure to make good use of the information. Then, you are asked to check over the survey and verify the survey has been completed properly. You then need to sign the survey verifying it accuracy. Finally, you will give the survey to your team leader and he will verify and sign the

Annex 1: FAO-Netherlands Partnership Programme Household Survey, VISIT 1: August 2002, DAILY SURVEY LOG

Date: _____   Team number: _____   Survey Team Leader: _____

Woreda Name: _____   Code: _____PA Name: _____   Code: _____

HOUSEHOLD SURVEYS COMPLETED AND CHECKED

	Name of Household Head	Preferred or alternate HH	Household survey number	Enumerator
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				

COMMUNITY SURVEY COMPLETED (IF APPLICABLE)

	Name of community	HCS or non-HCS PA	Community survey number	Enumerator
1				

Submitted by Team Leader   Received by HCS survey coordinator

_____   _____   _____   _____
      Signature   Date   Signature   Date