50x2030

INTERVIEWER MANUAL TEMPLATE

Machinery, Equipment and Assets

(MEA-AG PH)

FEBRUARY 2025

This Example Manual corresponds to the MEA-AG PH questionnaire template for the household sector (Version 5).

Users are reminded that the content of this manual must be modified in sync with any modification to the questionnaire (questions, numbering) and local context (key definitions, protocols, etc.)

Throughout the document notes for users drafting the final survey manual are indicated in curly brackets – {like this}. All such notes should be addressed and removed from the manual before it is made final and shared with field teams for survey implementation.

Introductory or generic sections that are identical across the enumerator manuals for other relevant instruments are highlighted in gray to facilitate updating.

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#  Introduction

The Machinery, Equipment and Assets rotating Agricultural questionnaire (MEA-AG) is part of the 50x2030 Initiative to Close the Agricultural Data Gap (50x2030 Initiative). It is recommended to be administered every three to five years (depending on rate of mechanization) to holdings in the household and non-household sectors.

The MEA-AG is administered in the post-harvest visit, with the CORE-AG PP questionnaire administered in the post-planting visit. Together, the CORE PP and MEA-AG PH collect annual CORE data on the major components of agricultural production – crop, livestock, aquaculture, fishery, and forestry production - as well as data on the machinery, equipment, and assets of agricultural holdings, focusing primarily on the types and numbers of machinery, equipment and assets used, as well as their age and ownership. Questions on marketing and access to services are also included.

#  Description of the Survey

The MEA Module focuses on the machinery, equipment and assets of agricultural holdings in the whole country, regardless of holding size. The questions focus mainly on the types and numbers of machinery, equipment and assets used, as well as their age and ownership.

This manual focuses on the MEA-post-harvest survey (MEA-AG PH), to be administered at the end of the agricultural year – after the harvest of the main agricultural season. Most sections of the MEA Module have a reference period of 12 months. However, to reduce recall biases, some specific sections or questions are administered with a reference period of less than 12 months. **Table 1** summarizes the topics covered by each section.

Table 1. Overview of MEA -AG PH Sections

|  |  |  |
| --- | --- | --- |
| **Topics and Questionnaire Sections** | **Level of Data Collection** | **MEA-AG vs. CORE-AG coverage** |
| 1A. Temporary Crop Production | Parcel-Plot-Crop | Identical |
| 1V. Vegetable Crop Production | Parcel-Plot-Crop | Identical |
| 1B. Temporary Crop Destination | Crop | Expanded |
| 2A. Tree & Permanent Crop Production | Parcel- Crop | Identical |
| 2B. Tree & Permanent Crop Destination | Crop | Expanded |
| 3C. Input Use & Acquisition |  Input Type | Identical |
|  11 Non-Residential Buildings - Crops |  Farm | Only in MEA |
| 4A. Livestock - Ownership | Livestock Name | Expanded |
| 4B. Livestock – Change in Stock (Ruminants) | Livestock Name | Expanded |
| 4C. Livestock – Change in Stock (Poultry) | Livestock Name | Expanded |
| 4G. Livestock – Milk Production | Livestock Name | Identical |
| 4E. Livestock – Egg Production | Livestock Name | Identical |
| 4IF. Livestock – Other Livestock Products | Product Type | Identical |
| 12. Livestock - Buildings | Farm | Only in MEA |
| 13 . Machinery & Equipment | Farm | Only in MEA |
| 5A. Aquaculture Production | Product Type | Identical |
| 6A. Fishery Production | Product Type | Identical |
| 7A. Forestry Production | Product | Identical |
| 9. Labour | Worker type | Identical |
| 14. Services  | Holding | Only in MEA |

## The survey sample

Our ability to use this survey to estimate characteristics for the population of [country] as a whole is dependent on a random selection of survey households from a list of all eligible households in each enumeration area (EA). Equally critical for this second post-harvest visit, is the ability to successfully interview all households with competed interviews from the post-planting visit.

The total number of households selected for this survey is XXXX. For each EA, the field team will have a list of XX households. The list will indicate which households were visited during the post-planting visits, which households were not contacted. Similar to the previous visit, do not replace a household without a valid reason. Always try to interview the original households by exhausting all your means to locate or convince the household to participate without jeopardizing the quality of the data. This is especially true for households that completed interviews during the post-planting visit.

## Enumerator **Preparation**

This is the MEA-AG PH module which is intended as a supplement to the post-planting training manual of the CORE-AG PP, for use when the MEA instrument is being implemented in the post-harvest visit. The CORE-AG PP training manual includes additional survey guidance that all enumerators are expected to know and follow, including:

* Listing & Household Selection
* Good Habits & Practices for Enumerators
* Completing the Questionnaire, including Plots and Parcels

Box D. Definitions for Parcel and Plot

Land-related data in this household survey will be collected at the parcel or plot level. [Adjust as appropriate for each survey]

A **parcel** is any piece of land under one land tenure type entirely surrounded by other land, water, road, forest, or other features not forming part of the holding or forming part of the holding under a different land tenure type.

A **plot** is a part of a parcel under one utilization category. A parcel may consist of one or more plots.

Example case: A household owns two parcels. One is used only for growing corn inter-cropped with beans, thus it contains only one (mixed-crop) plot. The other parcel is split into 3 plots – one for growing only corn, one for animal grazing, and another is rented out to a neighbor.

For detailed guidance, refer to CORE-AG PP manual.

#  Questionnaire Sections

This chapter will examine each section of the household questionnaire in order to address any possible problematic issues. The following notes should be your first point of reference as you encounter any problems in administering any of the household questionnaire sections or questions.

## Section 0A. Interview Cover

This section is to ensure that the enumerator has the necessary information to approach the correct household. It also contains filter questions on the household’s participation in agricultural activities.

#### Respondent & Level of Reporting

The Respondent must be competent: he/she must be an adult household member – at least X years of age – and must have knowledge of the household and its agricultural activities. Ideally, the respondent will be the main person in charge of taking the agriculture-related economic and technical decisions on the holding.

#### Question by Question

**s0Aq01 – s0Aq04A.** This information will be provided to you as part of the listing information, when you are assigned the household by your supervisor.

**s0Aq05. NAME OF HOUSEHOLD HEAD.** This will also be provided as part of your listing information. It will be important to confirm that this person is part of the household – to ensure that you have located the correct household. Confirm if they are indeed the correct person to be designated household head; if there are any corrections to be made, do so here.

**s0Aq06 & s0Aq07.** Enter the unique enumerator code that was assigned to you and your name. (Not required in Survey Solutions or other CAPI software)

**s0Aq08 – s0Aq11** are repeated up to 3 times, depending on how many attempts are needed to reach an appropriate respondent and complete the interview. Less than 3 attempts are valid only in the following cases:

* An appropriate respondent is reached and the interview is successfully completed on the first or second attempt.
* The outcome of the first or second attempt renders it impossible or highly unlikely to be able to reach an appropriate person and/or to complete the interview. All such cases MUST be discussed and cleared by your supervisor before recording as a failed interview.

**s0Aq08. INTERVIEW DATE AND TIME.** It is important to record all attempted visits to the household as well as to mark the date and time of each visit (independent of the outcome). This will allow to calculate the interview duration and facilitate the fieldwork monitoring and data cleaning processes.

After recording the date and time for this visit, seek for a competent and read him/her the informed consent: introduce yourself, the institution you are running this survey for, assure the respondent that all collected data will be subject to the strictest confidentiality rules {add any element deemed necessary to the informed consent as per your country standards, e.g. interview duration, contact details, etc.}.

**s0Aq09. Are you able to answer questions concerning the agricultural activities of the household? (e.g., area planted, production, input use, etc.)** Whenever the answer is No, before recording that answer, you must work with the household member you are talking to and try to figure out which other person is best equipped to answer the questions.

**s0Aq10. Is it possible to start the interview?** Once you have identified a competent respondent, confirm whether or not it is possible to start the interview.

**s0Aq11. Reason why the household cannot be interviewed.** Answer only if Q9 or Q10 are No. In such cases, code the appropriate reason here and then end the interview.

**S0Aq12. Interview location.** Indicate where the interview is taking place by choosing in the displayed list. Whenever possible, this should be at the household dwelling.

**S0Aq13. GPS coordinates** will be collected as part of the interview. In this section, coordinates are recorded from the interview location, as indicated in question S0Aq12. Effort should be made to conduct the interview and collect GPS coordinates at the household dwelling, wherever possible. In this case, coordinates should be collected standing immediately outside the dwelling entrance to allow for better signal. {Include instructions based on the specific GPS devices and protocols that will be used. These could be moved at the end as part of country customization, e.g., if not collecting area measurements or plot level coordinates (i.e., no change of interview place from household dwelling). {Refer to the 50x2030 Technical Note on Georeferencing for example instructions.}

**s0Aq14. NAME OF THE RESPONDENT TO THIS SECTION**. As noted above, the respondent should have knowledge of the household’s farming activities. It may be the household head or another adult household member.

**s0Aq15. Have you or any member of your household cultivated crops during the [REFERENCE AGRICULTURAL SEASON]?**  This includes any temporary, permanent or tree crops, regardless of whether they are cultivated for household consumption or for sales.

**s0Aq16. Have you or any member of your household raised livestock in the past [REFERENCE PERIOD] months?** If the respondent is unsure or initially responds NO, remind the respondent that livestock includes not only cattle, sheep, goats, and pigs, but also chicken and other birds as well as any other animals (rabbits and other rodents, etc.) or insects (such as bees) raised for food products or sale.

**Enumerator check**. Note that if the household reports NO in both s0Aq15 and s0Aq16 then the rest of the questionnaire will not be administered. Administer only the END Survey section.

## Section 1A. Temporary Crop Production

For this and the following sections, the crops that farmers reported having cultivated in the post-planting interview/visit will be entered {manually by the enumerator OR automatically using CAPI} so that post-harvest information can be asked about each crop on each plot. Sections 1A, 1V, and 1B collect information on temporary crops cultivated and, when applicable, harvested, during the reference agricultural season. Section 1A focuses on non-horticultural (non-vegetable) crops. Vegetable crops are covered in Section 1V. Permanent crops are covered in sections 2A & 2B.

The questionnaire allows for reporting the actual and expected harvests in non-standard units of measurements (NSUs) and in different states and conditions. This is particularly important in contexts where non-standard units are very common, and when a single crop may be harvested in different states.

#### Respondent & Level of Reporting

This information is collected for each TEMPORARY CROP (excluding vegetable crops), on each PLOT, on each PARCEL. So, for example, if the household grows maize on 3 different parcel-plots, maize information will be recorded across three separate rows (e.g.: maize Plot 1 Parcel1, maize Plot 1 Parcel 3, and maize Plot 2 Parcel 3). The respondent should be the household member most knowledgeable about the harvest activities of specific crop-plot-parcel activities or a non-household manager of the household farm. Note that it is possible to have different respondents for different crop-plot-parcel entries.

#### Question by Question

**s01Aq01. PREFILL ALL PLOT-CROP INFORMATION FOR TEMPORARY CROPS FROM POST PLANTING QUESTIONNAIRE.**  This information will be pre-filled based on information reported by the household (or the non-member farm manager) during the post-planting interview. {For CAPI: This will be done automatically by the CAPI software. OR for PAPI: This should be filled in BEFORE approaching the household; extra care must be taken to ensure the proper crops are pre-filled into the proper sections (temporary, permanent, etc.).}

**s01Aq02. ENUMERATOR: RECORD THE ID OF THE RESPONDENT.**

**s01xAq03. You indicated that [CROP] was planted on [PLOT] on [PARCEL]. Which organic fertilizers, if any, did your household apply on the [CROP] on this [PLOT] during the [REFERENCE AGRICULTURAL SEASON]?** Select all of the organic fertilizers applied on the crop-plot-parcel regardless of when or how frequently they were applied. Make sure the respondent is clear about WHICH CROP-PLOT-PARCEL you are referring to. Organic fertilizers are natural products such as animal and plant by-product, most commonly manure derived from animal dung or poultry droppings or organic compost derived from crop residue and / or organic materials from kitchen waste such as fruit & vegetable peels, eggshells, (paper) tea bags, etc.

{Include explanations or guidance that enumerators can use to help respondents identify which type of fertilizers the household has used, based on what is relevant in the context.}

**s01Aq04. Which inorganic (chemical) fertilizers, if any, did your household apply on the [CROP] on the [PLOT] during [REFERENCE AGRICULTURAL SEASON]?** Select all of the inorganic or chemical fertilizers applied on the crop-plot-parcel regardless of how frequently they were applied. Make sure the respondent is clear about WHICH CROP-PLOT-PARCEL you are referring to. Inorganic fertilizers are those that are artificially derived, chemical fertilizers. Common examples are NPK, DAP, or urea.

**s01Aq05 Which pesticides, if any, did your household apply on this [CROP] on [PLOT] during the [REFERENCE AGRICULTURAL SEASON]?** Pesticides are chemicals used to protect crops from fungal diseases and pests (both external and soil-borne). Herbicides are chemicals used to control the spread of unwanted weeds and plants. Some common pesticides are: Cypemethrins (Ripcord, Cymbush, and Sherpa) for the control of insect pests; Chlorothalonil (Daconil) for the control of fungal diseases; and Primiphos methyl (Actelic) for the control of pests. Select all of the pesticides applied on the crop-plot-parcel regardless of how frequently they were applied. Make sure the respondent is clear about WHICH CROP-PLOT-PARCEL you are referring to.

**s01Aq06. Did your household harvest any of the [CROP] planted on the [PLOT] during the [REFERENCE AGRICULTURAL SEASON]?** Record NO if the crop on this plot-parcel was not harvested for any reason. A list of the most common reasons are listed in the next question. If the crop was harvested record YES here and collect the rest of the information in this section as instructed. If the crop was harvested but then lost (i.e., lost AFTER harvest), record YES as well.

**s01Aq07. Why did your household not harvest any [CROP] from [PLOT] during the [REFERENCE AGRICULTURAL SEASON]?** This question is only asked if the entire crop was not harvested. In such cases, it is the last question asked about this crop-plot-parcel. Select up to two reasons.

**s01Aq08. In which months did your household harvest [CROP] from [PLOT]?** This question is asked if the crop was harvested in the plot-parcel. Record the months and the years when the household harvested the crop from the plot-parcel.

**s01Aq09** **How much [CROP] in total did your household harvest from [PLOT] during the [REFERENCE AGRICULTURAL SEASON]?** Record the quantity of crop from plot harvested in the unit *reported by the respondent,* do not convert the amount into another unit. If the unit reported is not on the list of available units, record ‘Other, specify’ and write in the unit; in such cases you must work with your supervisor and the respondent to determine an equivalent value in one of the known units; write this conversion amount in the notes section. The units are provided (i.e. Kilogram, 50 Kg bag, 90 Kg bag, pail (small), pail (large), bunch, piece, basket, etc.) and condition/state (i.e. Shelled fresh, Shelled (dry), Unshelled (fresh), Unshelled (dry), etc.). Add a second condition/state if the crop was harvested in another condition/state. Note that the second condition/state needs to be different from the first one for the same crop harvested in the plot-parcel.

**s01Aq10.** **Has your household completed harvest of [CROP] from [PLOT]?** Record YES if the household has finished all planned harvesting of this crop on this plot, regardless of whether they managed to harvest all the crops planted on the plot.

**s01Aq12. Is the area that has been harvested of [CROP] on [PLOT] less than the area planted?** Record YES if the household, for any reason, did not harvest the entire area planted with the crop. If the entire area planted has already been harvested, record NO and finish this section for the given crop-plot-parcel.

**s01Aq13. Why was the area harvested of [CROP] on [PLOT] less than the area planted?** If there are multiple reasons, select up to two MAIN reasons.

**s01Aq14. During the [REFERENCE AGRICULTURAL SEASON], approximately what percent of [PLOT] planted with [CROP] was harvested?** Asked for any crop that was not fully harvested. If the respondent is unsure of percentages, you can help them estimate by asking by fractions. For example, ask if it was half, more than half, or less than half; if less than half, ask if it was more, less, or about equal to a quarter; and so on. Even if the respondent provides the answer in a fraction (a quarter, a half, etc.), you must record the amount as a percentage (25, 50, etc.).

**s01Aq15. Approximately what percent of [PLOT] area planted with [CROP] do you expect to harvest in the [REFERENCE AGRICULTURAL SEASON]?** It is possible that some portion of the crop could be harvested after the interview date, either because the interview takes place before the {Reference Agricultural Season} ends or because some crop will be harvested after the usual seasons. Note that the percent the household expects to harvest could be the same or less than the area still not harvested at the time of the interview.

**s01Aq16. In the harvest of [CROP] done so far on this [PLOT], is there a portion of area planted with [CROP] that was not harvested due to damages or shocks?** If the answer is NO, skip to next crop-plot-parcel**.**

**s01Aq17. Why was the area not harvested?**  If there are multiple reasons, select the two MAIN reasons.

**s01Aq18 Approximately what percent of the [PLOT] area planted with [CROP] in the [REFERENCE AGRICULTURAL SEASON] wasn't harvested due to these shocks?** Ask the respondent to estimate the percentage of the planted area that was not harvested due to these damages/shocks. For example, if one quarter of the area planted with the main crop on the plot was damaged, you would enter “25”.  We are asking here about the percentage of the *planted area* that was lost due to damage.

## Section 1V. Vegetable Crop Production

The Food and Agriculture Organization has classified some seasonal crops as “horticultural”, or vegetable, crops for the purposes of this survey. These pre-determined classifications will be used to assign each crop to the questionnaire section in which it will be asked about. Similar to section 1A, the relevant crops reported during the CORE-AG PP interview will be pre-filled in this section.

#### Respondent & Level of Reporting

This information is collected for each TEMPORARY HORTICULTURE CROP, on each PLOT, on each PARCEL. The respondent should be the household member most knowledgeable about the harvest activities of specific crop-plot-parcel activities.

#### Question by Question

This section asks all of the same questions as Section 1A (albeit some are assigned different question numbers), plus additional questions specifically relevant to horticulture crops. Guidance is provided here on the horticulture-specific questions; for the rest, see guidance in the above section.

**s01Vq06. How many plantings of [CROP] on [PLOT] did your household perform during the REFERENCE AGRICULTURAL SEASON]?** Many of the crops classified as horticultural can be planted multiple times throughout an agricultural season.

**s01Vq11.** **Is the [PLOT] where [CROP] was planted divided into beds?** A common feature of horticulture farming in many countries is the proportioning of the plot into multiple subplots (generally of equal size) called “beds”. In a given season, there may be many plantings on a single bed with sometimes different crops from one planting to another. A bed is a piece of land surrounded by a mound or a walkway for transplanting seedlings.

**s01Vq12. On average, how many beds of [CROP] on [PLOT] did you cultivate in each planting during the [REFERNCE AGRICULTURAL SEASON]?**

**s01Vq13. What is the average size of a bed?** Enteranswers in square meters. {To be customized at country level, as needed}

**s01Vq14. How much [CROP] on average did your household harvest from [PLOT] in each bed during the last harvest in the [REFERENCE AGRICULTURAL SEASON]?** That is only asked for plot-crops that were divided into beds (as reported in Q11). If they were not divided into beds, then ask Q15 instead.

## Section 1B. Temporary Crop Destination

This section records how farmers used their production of temporary crops, including both vegetable and temporary non-vegetable crops, differentiating between various destinations/uses. It will continue to ask about the crops reported in the previous section. Here, it will ask only about those crops that were HARVESTED during the reference period.

#### Respondent & Level of Reporting

Whereas the previous section collects information at the plot-crop level (meaning a crop grown on 2 plots had two separate entries), this section collects information at the CROP level, meaning that all information on a crop is collected together, regardless of plot-parcel divisions. The respondent should be the household member most knowledgeable about the harvest activities of specific crop activities. Note that it is possible to have different respondents for different crop entries.

#### Question by Question

**CROP NAME.** Every crop reported in Sections 1A AND 1V MUST be listed here – and listed only ONCE.

**S01b\_q01. ENUMERATOR: RECORD THE ID OF THE RESPONDENT.** You could select the respondent from a pop-up list in case of CAPI.

**s01b\_q02. Thinking of all the land your household cultivated in the [REFERENCE AGRICULTURAL SEASON], what was the total quantity of [CROP] your household harvested?** Record the quantity in final form, such asgrain form for cereal crops.The total quantity must all be reported in the same condition. If, for example, the respondent reports 10kg of maize in grain form and 20kg of maize on the cob, work with the respondent to estimate the total quantity in grain form by estimating the total maize grain from the 20kg of maize on the cob, and add that to the 10kg of maize grain reported separately. This should include **all** the [CROP] cultivated across all plots. This question is used primarily to give respondents a reference amount for the questions that follow. Report the condition in which the crop is reported, keeping in mind this should be the final form of the crop.

**s01b\_q03. Do you have any of the harvested [CROP] in storage currently?** Record YES if any quantity of the harvested crop in unprocessed form is currently being stored by the household to beused in the future, such as for food for the household, to be sold later, to be used as seed for planting, to be rendered as payment in kind, to be used as animal feeding or any other reasons.

**s01b\_q04. What percentage of the total [CROP] harvest is currently in storage?** This question asked about the percentage, or the share, of the total harvest from the [REFERENCE AGRICULTURAL SEASON] that is currently kept in storage by the household. If the household harvested a total of 100kg of maize grain, and 20kgs are currently being stored, enter “20%”.

In the following questions, the respondent is asked to think about the total quantity of harvest, including any amount that is currently in storage. If the respondent has indicated that they have any crop in storage, CAPI will automatically add text to the relevant questions to specify “including the quantity in storage”. If the respondent reported having no crop in storage, that text will not appear.

**s01b\_q05. Has your household used, or does it intend to use in the future, the [CROP] produced [including the quantity in storage] for any of the following purposes?** Read aloud the response options and indicate all uses that apply. This question aims to understand how the crop has been used or how it will be used in the future, including any quantity in storage. A household may, for example, use some of the crop for consumption by household members, and sell some of the crop. If those are the only uses of the crop, you would indicate those two use categories. It could be that the household has not yet sold the crop, but they plan to sell some of the crop from this harvest in the future. In that case you would still indicate sales as a use category. Note that sales of crop in unprocessed form are reported as a separate category as crop that is processed and then sold.

**s01b\_q06. Was any part of the [CROP] lost during or after the harvest, including during post-harvest activities, transport, or storage?** This question aims to understand if the household lost any of the crop harvest either during the harvest stage or after harvesting. Loss of the crop after harvesting could be caused by many factors such as damage caused during threshing or drying, damaged during transportation, or issues with pests or rotting while in storage, for example.

**s01b\_q07. What percentage of the [CROP] harvested in the [REFERENCE AGRICULTURAL SEASON] was sold, or is intended to be sold in unprocessed form [including the quantity in storage]?** Processing refers to changes to crops beyond their natural/fresh state, such as drying, grinding into flour, pickling, etc. Unprocessed, then, refers to the part of the crops sold without such alterations. Simple post-harvest treatments such as removing inedible parts (shelling, peeling, husking, etc.) are not considered processing, though they do alter the condition of the unprocessed crop. Indicate the total quantity that the household has sold AND expects to sell, from the crop harvested during the reference agricultural season

**s01b\_q08. Has your household sold any unprocessed [CROP] yet, since the harvest?** Indicate if the household has *already* sold any of the crop in unprocessed form. If they have not yet made any actual sales, record “No” even if they expect to sell in the future.

**s01b\_q0~~8~~9. How much of the harvested [CROP] has been sold in *unprocessed* form?** Report only the quantity of crop already sold, do not include estimated future sales in this question. Record the unit as reported by the respondent do not convert the amount into another unit. If the respondent indicates sales in more than one crop condition and or unit, you must work with the respondent to aggregate the sales into once common condition and unit combination, which should be the condition/unit combination with the most sales. If the unit reported is not on the list of available units, record ‘Other, specify’ and write in the unit; in such cases you must work with your supervisor and the respondent to determine an equivalent value in one of the known units; write this conversion amount in the notes section. Include both sales in-kind and cash.

**s01b\_q~~0~~10~~9~~a. Total value or unit price?** Ask the respondent whether they prefer to report the total value of crop earnings, or their unit price. If unit price is selected, ask q10c.

**S01b\_q10b. What was the total value of all unprocessed [CROP] sales?** If the respondent selected total value in S01b\_q10a, then record the total value of unprocessed sales to date. Again, this does not include the estimated value of future sales – it only includes actual sales made through the date of the interview. If sales were done in-kind, the value of these sales must be estimated.

**s01b\_q11.** **Who in your household decides or will decide what to do with earnings from the sale of unprocessed [CROP]?** Note that this question is not asking who sold the crop, but rather who in the household decided or will decide what to do with the *earnings* *from the unprocessed crop* sold and reported in the previous questions. Select up to two household members.

**s01b\_q12–19, 21 What percentage of the [CROP] harvested in the [REFERENCE AGRICULTURAL SEASON] was.or is intended to be…?** This series of questions asked about the percentage, or share, of the total crop harvest from the reference agricultural season (including any amount in storage) that has been or will be used for specific purposes. If the respondent has difficulties reporting in percentages, you can help by asking them about fractions. For example, ask if it was half, more than half, or less than half; if less than half, as if it was more less or about equal to a quarter; and so on. Even if the respondent provides the answer in a fraction (a quarter, a half, etc.), you must record the amount as a percentage (25, 50, etc.). Note that the percentages reported in questions 7, 12, 13, 14, 15, 16, 17, 18, 19 and 21 must total 100%, to account for the use of the total quantity of crop produced (as reported in Q2).

## Section 2A. Permanent Crop Production

This section collects information on the quantities of permanent crops, including from trees, harvested during {REFERENCE AGRICULTURAL YEAR}, as tree and permanent crops typically do not have a specific production period or at least not one that lines up with the more narrowly-defined seasonality of temporary crops. The section allows for the estimation of pre-harvest losses, as well as the dates of the production period of each permanent crop.

Note that:

* For the purpose of this questionnaire, cassava is classified as a permanent crop. Other tree/permanent crops include coffee, tea, nut trees, and other fruit trees.
* Fruits gathered or foraged from wild land (or any land not cultivated, belonging to, or used exclusively by the household) ARE NOT to be listed here.
* Note that in previous sections information is collected by season, while in this section the reference period covers 12 months.

#### Respondent & Level of Reporting

This information is collected for each TREE OR PERMANENT CROP, on each PARCEL. So, for example, if the household has mango trees on 2 different parcels, information on those trees will be recorded on two separate rows (e.g.: mango trees Parcel 1 and mango tree Parcel 3). The respondent should be the household member most knowledgeable about the harvest activities of specific crop-plot-parcel activities. Note that it is possible to have different respondents for different crop-plot-parcel entries.

#### Question by Question

**PERMANENT CROP NAME.** This information must be PRE-FILLED based on information reported by the household during the CORE-AG-PP interview. {For CAPI: This will be done automatically by the CAPI software. OR for PAPI: This should be filled in BEFORE approaching the household; extra care must be taken to ensure the proper crops are pre-filled into the proper sections (temporary, permanent, etc).

**s02Aq03. You indicated that [CROP] was planted on [PLOT] on [PARCEL]. Which organic fertilizers, if any, did your household apply on the [PERMANENT CROP] planted on this [PARCEL] during the [REFERENCE AGRICULTURAL YSEASON]?** For guidance on fertilizer types, see section 1A.

**s02Aq04. Which inorganic (chemical) fertilizers, if any, did your household apply on the [PERMANENT CROP] planted on [PARCEL during [REFERENCE AGRICULTURAL SEASON]?**

For guidance on fertilizer types, see section 1A.

**s02Aq05. Which pesticides, if any did your household apply on the [PERMANENT CROP] on the [PLOT] during the [REFERENCE AGRICULTURAL SEASON]?** Pesticides are chemicals used to protect crops from fungal diseases and pests (both external and soil-borne). Herbicides are chemicals used to control the spread of unwanted weeds and plants. Some common pesticides are: Cypemethrins (Ripcord, Cymbush, and Sherpa) for the control of insect pests; Chlorothalonil (Daconil) for the control of fungal diseases; and Primiphos methyl (Actelic) for the control of storage pests. Record YES if any pesticides or fungicides were used during the reference period. {be sure to include as additional examples any products that are commonly used in the country/region of the survey.} For guidance on pesticide types, see section 1A.

**s02Aq06. How many plants on this [PARCEL] were in production during [REFERENCE AGRICULTURAL YEAR]?** A plant is considered“in production” if it was producing crops at any time during the [REFERENCE AGRICULTURAL YEAR].

**s02Aq07. Did your household harvest [PERMANENT CROP] on this [PARCEL] during the [REFERENCE AGRICULTURAL YEAR]?** If NO, move on to the next crop-parcel.

**S02Aq08. In which months did your household harvest the [PERMANENT CROP] on this [PARCEL] during the [REFERENCE AGRICULTURAL YEAR]?** Record all months during which the crop was harvested from this parcel. Select 99 if this is a continuous harvest, i.e. harvest that is ongoing all year long.

**s02Aq09. In the last harvest period, were there any losses of [PERMANENT CROP] before the harvest?** This refers to ONLY losses before harvest. If the plant is harvested throughout the year, the losses refer to only the last harvest period and not over the entire **[REFERENCE AGRICULTURAL YEAR]**. Any losses after harvest (while in storage, transport, etc.) or from previous harvest periods should not be considered or recorded here.

**s02Aq10.** **Why were there losses before the harvest?** Select up to two main reasons.

**s02Aq10a. Approximately what percent of the [PARCEL] area planted with [PERMANENT CROP] in the [REFERENCE AGRICULTURAL YEAR] was not harvested due to these shocks?** Ask the respondent to estimate the percentage of the planted area that was not harvested due to these damages/shocks. For example, if one quarter of the area planted with the main crop on the plot was damaged, you would enter “25”. We are asking here about the percentage of the planted area that was lost due to damage.

**s02Aq11. How much [PERMANENT CROP] did your household harvest during the [REFERENCE AGRICULTURAL YEAR]?** Record the unit *as reported by the respondent,* do not convert the amount into another unit. If the unit reported is not on the list of available units, record ‘Other, specify’ and write in the unit; in such cases you must work with your supervisor and the respondent to determine an equivalent value in one of the known units; write this conversion amount in the notes section. Record also what was the condition of the [CROP] (i.e. shelled, unshelled, etc.).

## Section 2B. Tree & Permanent Crop Destination

The Permanent Crop Destination section continues to ask about the permanent crops reported in the previous section. This section will ask only about those crops that were HARVESTED during the [REFERENCE AGRICULTURAL YEAR]. It collects information on the uses of the harvested crops as well as the intended destination of stored harvest, as part of the harvest may still be stored for future utilization at the time of the interview.

 As in previous sections, quantities can be reported in local units of measurements and in different states and conditions.

#### Respondent & Level of Reporting

Whereas the previous section collects information at the parcel-crop level (meaning a crop grown on 2 parcels had two separate entries), this section collects information at the CROP level – all information on a crop is collected together, regardless of which plots or parcels it was harvested from. The respondent should be the household member most knowledgeable about the harvest activities of specific crop activities or a non-household manager of the household farm. Note that it is possible to have different respondents for different crop entries.

#### Question by Question

**CROP NAME.** Every crop reported in Section 2A and HARVESTED during [REFERENCE AGRICULTURAL YEAR] MUST be listed here, and listed only once. The reference period for this section covers a 12-month period. In all other aspects, the questions and related guidance are the same as in Section 1B.

**S02b\_q01. ENUMERATOR: RECORD THE ID OF THE RESPONDENT.** You could select the respondent from a pop-up list in case of CAPI.

**s02b\_q02. Thinking of all the land your household cultivated in the [REFERENCE AGRICULTURAL SEASON], what was the total quantity of [CROP] your household harvested?** Record the quantity in final form, such as grain form for cereal crops. The total quantity must all be reported in the same condition. If, for example, the respondent reports 10kg of maize in grain form and 20kg of maize on the cob, work with the respondent to estimate the total quantity in grain form by estimating the total maize grain from the 20kg of maize on the cob, and add that to the 10kg of maize grain reported separately. This should include **all** the [CROP] cultivated across all plots. This question is used primarily to give respondents a reference amount for the questions that follow. Report the condition in which the crop is reported, keeping in mind this should be the final form of the crop.

**s02b\_q03. Do you have any of the harvested [CROP] in storage currently?** Record YES if any quantity of the harvested crop in unprocessed form is currently being stored by the household to beused in the future, such as for food for the household, to be sold later, to be used as seed for planting, to be rendered as payment in kind, to be used as animal feeding or any other reasons.

**s02b\_q04. What percentage of the total [CROP] harvest is currently in storage?** This question asked about the percentage, or the share, of the total harvest from the [REFERENCE AGRICULTURAL SEASON] that is currently kept in storage by the household. If the household harvested a total of 100kg of maize grain, and 20kgs are currently being stored, enter “20%”.

In the following questions, the respondent is asked to think about the total quantity of harvest, including any amount that is currently in storage. If the respondent has indicated that they have any crop in storage, CAPI will automatically add text to the relevant questions to specify “including the quantity in storage”. If the respondent reported having no crop in storage, that text will not appear.

**s02b\_q05. Has your household used, or does it intend to use in the future, the [CROP] produced [including the quantity in storage] for any of the following purposes?** Read aloud the response options and indicate all uses that apply. This question aims to understand how the crop has been used or how it will be used in the future, including any quantity in storage. A household may, for example, use some of the crop for consumption by household members, and sell some of the crop. If those are the only uses of the crop, you would indicate those two use categories. It could be that the household has not yet sold the crop, but they plan to sell some of the crop from this harvest in the future. In that case you would still indicate sales as a use category. Note that sales of crop in unprocessed form are reported as a separate category as crop that is processed and then sold.

**s01b\_q06. Was any part of the [CROP] lost during or after the harvest, including during post-harvest activities, transport, or storage?** This question aims to understand if the household lost any of the crop harvest either during the harvest stage or after harvesting. Loss of the crop after harvesting could be caused by many factors such as damage caused during threshing or drying, damaged during transportation, or issues with pests or rotting while in storage, for example.

**s02b\_q07. What percentage of the [CROP] harvested in the [REFERENCE AGRICULTURAL SEASON] was sold, or is intended to be sold in unprocessed form [including the quantity in storage]?** Processing refers to changes to crops beyond their natural/fresh state, such as drying, grinding into flour, pickling, etc. Unprocessed, then, refers to the part of the crops sold without such alterations. Simple post-harvest treatments such as removing inedible parts (shelling, peeling, husking, etc) are not considered processing, though they do alter the condition of the unprocessed crop. Indicate the total quantity that the household has sold AND expects to sell, from the crop harvested during the reference agricultural season.

**s02b\_q08. Has your household sold any unprocessed [CROP] yet, since the harvest?** Indicate if the household has *already* sold any of the crop in unprocessed form. If they have not yet made any actually sales, record “No” even if they expect to sell in the future.

**s02b\_q09. How much of the harvested [CROP] has been sold in *unprocessed* form?** Report only the quantity of crop already sold, do not include estimated future sales in this question. Record the unit as reported by the respondent*,* do not convert the amount into another unit. If the respondent indicates sales in more than one crop condition and or unit, you must work with the respondent to aggregate the sales into once common condition and unit combination, which should be the condition/unit combination with the most sales. If the unit reported is not on the list of available units, record ‘Other, specify’ and write in the unit; in such cases you must work with your supervisor and the respondent to determine an equivalent value in one of the known units; write this conversion amount in the notes section. Include both sales in-kind and cash.

**s02b\_q10a. Total value or unit price?** Ask the respondent whether they prefer to report the total value of crop earnings, or their unit price. If unit price is selected, ask q10c.

**S02b\_q10b. What was the total value of all unprocessed [CROP] sales?** If the respondent selected total value in S01b\_q10a, then record the total value of unprocessed sales to date. Again, this does not include the estimated value of future sales – it only includes actual sales made through the date of the interview. If sales were done in-kind, the value of these sales must be estimated.

**s02b\_q11.** **Who in your household decides or will decide what to do with earnings from the sale of unprocessed [CROP]?** Note that this question is not asking who sold the crop, but rather who in the household decided or will decide what to do with the *earnings* *from the unprocessed crop* sold and reported in the previous questions. Select up to two household members.

**s02b\_q12–19, 21. What percentage of the [CROP] harvested in the [REFERENCE AGRICULTURAL SEASON] was...or is intended to be…?** This series of questions asked about the percentage, or share, of the total crop harvest from the reference agricultural season (including any amount in storage) that has been or will be used for specific purposes. If the respondent has difficulties reporting in percentages, you can help by asking them about fractions. For example, ask if it was half, more than half, or less than half; if less than half, as if it was more less or about equal to a quarter; and so on. Even if the respondent provides the answer in a fraction (a quarter, a half, etc.), you must record the amount as a percentage (25, 50, etc.). Note that the percentages reported in questions 7, 12, 13, 14, 15, 16, 17, 18, 19 and 21 must total 100%, to account for the use of the total quantity of crop produced (as reported in Q2).

## Section 3C. Input Use & Acquisition

This section asks about types of inputs – fertilizers and pesticide/herbicides – used across ALL plots and parcels. ONLY ASK ABOUT the input types reported in Sections 1A, 1V, and 2A. {In CAPI, the appropriate inputs will be automatically populated into the questionnaire.}

#### Respondent & Level of Reporting

Here, information is collected on inputs used ACROSS ALL PARCELS, PLOTS, AND CROPS throughout the [REFERENCE AGRICULTURAL SEASON]. The respondent should be the household member most knowledgeable about the fertilizer and pesticides use across all parcels, plots, and crops.

#### Question by Question

**INPUT TYPE.** Automatically retrieved from answers to q03-q05 in Section 1A, 1V and 2A.

**s03q01. What was the quantity of [INPUT TYPE] that your household used during the [REFERENCE AGRICULTURAL SEASON]?** Remind the respondent that you are asking about the amount used across ALL PLOTS, and in non-diluted quantities. Record the unit *as reported by the respondent,* do not convert the amount into another unit. If the unit reported is not on the list of available units, record ‘Other, specify’ and write in the unit.

## Section 11. Non-residential buildings or structures used for crops

This section collects information about non-residential buildings and structures used for activities related to crop production (crop processing, plant protection products or fertilizer storage, etc.) to report on storage capability, types of crops stored, storage capacity and status of storage buildings used, area and status of other buildings used in the previous 12 months.

#### Respondent & Level of Reporting

The information is collected at holding level and collects the number and the use of buildings or structures for storing crops and for crop-related activities in the previous 12 months.

#### Question by Question

**s11q01. Did the household own or use any non-residential building or structure for crop storage in the past 12 months?** Record YES if the household owned or used any non-residential building or structure for crop storage in the last 12 months. All buildings and structures used for storing crops should be considered, including those buildings or structures that were not initially conceived for storing crops. Information is asked on their capacity and ownership. If NO building or structure used for crop storage, move on to q08.

**s11q02. If yes, how many were they?** Record the total number of non-residential buildings or structures used for crop storage in the past 12 months. The number should be greater than zero.

Questions q03 to q07 are asked for each of the following crop types that the household may have stored in the past 12 months: grain crops (cereals and pulses), root crops, fruits and other vegetables, mixed use (grain crops, root crops, fruits and other vegetables), other.

**s11q03. Did the household use any building or structure for storing [CROP] in the past 12 months?** The question allows to identify whether agricultural households have access to storage for the considered categories of agricultural products.

**s11q04. Identify the [CROP] stored in the building or structures.**

**s11q05. What is the storage capacity of the buildings or structures used to store [CROP]?** Record the storage capacity. The question will be used to verify whether a lack of storage capacity can explain some losses after harvest because of bad storage conditions. It is important to know whether the farmers can wait to sell their harvests to obtain best prices, and, thus, whether they are influencing prices.

**s11q06. What is the tenure of the buildings or structures used to store [CROP]?** Record the tenure of the used buildings or structures to store crops. This information provides an understanding of the ability of agricultural holdings to manage the time of use or sale of their production, since access to storage capacity allows farmers to make decisions about marketing their commodities based on market prices, rather than simply selling them as they are produced.

**s11q07. Identify the types of storage FOR CEREALS AND PULSES CROPS.** The type of storage is specified when access is available. For cereal and grain crops, storage types are: silos, granaries, pots, cribs or barns, room storage, piled on the ground, and other.

**s11q08. In addition to the buildings for crops that you just listed, did the household own and not use any other non-residential building or structures for crop storage in the past 12 months?** If NO, move on to q10.

**s11q09. If yes, how many were they?** Record the total number of non-residential buildings or structures that the household own but did not use for crop storage in the past 12 months. The number should be greater than zero.

Questions q10 and q11 ask about several crop-related processes or activities that the household may have used building or structure for, namely: processing of crops (preparation for market, etc.), storing plant protection products, storing fertilizers, storing crop-related machinery and equipment, other.

**s11q10. Did the holding use any buildings or structures for the following crop-related and crop processing activities during the past 12 months?** Record YES if the holding owned or used any non-residential building or structure for crop-related and crop processing activities (listed above) in the last 12 months.

**s11q011. What is the tenure of the buildings or structures used for [item]?** Record the tenure of the used buildings or structures to store crops used for crop-related and crop processing activities in the last 12 months.

## Section 4A. Livestock in Stock

Sections 4A-4I focus on livestock rearing. In these sections questions are generally asked at two main levels either at the livestock GROUP level or livestock NAME level:

* Livestock GROUP: refers to livestock species or group of species: bovine, buffalo, camelids, sheep, goats (they should be considered separately), pigs, poultry, equines, others.
* Livestock NAME: livestock within the same group is divided in categories by age, sex and sometimes production type.

This section covers the stock of animals KEPT by the household, regardless of who owns them. It asks about animals currently kept, as well as those kept over the past 12 months. Exclude animals that are owned by the household but kept by another household.

#### Respondent & Level of Reporting

Information in this section is collected at the livestock-name (type of animal) level and includes types of poultry as well. Also record here any other animals (rabbits, rodents, etc.) or insects (bees, silkworms, etc.) that the household raises or keeps for consumption of their meat or use of their products. This module is to be administered to the primary respondent or other household member concerned with managing the household’s livestock. Though only one respondent is expected for this section, that person may be assisted by other household members knowledgeable about these livestock details.

#### Question by Question

**s04Aq01. In the last 12 months, did your household keep any [LIVESTOCK NAME], irrespective of who owns the [LIVESTOCK NAME]?** Record YES for each LIVESTOCK NAME that the household KEEPS, even if only one and regardless of who owns these animals. Remember to probe and record YES if they owned or kept LIVESTOCK NAME any time during the past 12 months (even if they have none now).

**s04Aq02. How many [LIVESTOCK NAME] does your household currently keep?** Record 0 if the household does not currently keep/ LIVESTOCK NAME but did so at some point in the PAST 12 MONTHS. Include animals that are currently kept by the household but are out to pasture. Note that for some animal types (ex: large ruminants) separate numbers are recorded for male, female, and young animals.

**s04Aq03. Who manages the [LIVESTOCK NAME] currently kept by your household?** Select all that applies from the list.

**s04Aq04. Who in your household is responsible for selling [LIVESTOCK NAME] at markets (including sale of live animals or other livestock products)?** Select the ID code for the household member responsible for selling the livestock at the market.

**s04Aq05. Who in your household decides on how to use the earnings made from [LIVESTOCK NAME] in the past 12 months (sale of live animals or other products if applicable: milk, eggs, furs...)?** This is not concerned with who actually collects the money at the time of the sales, nor with who spends the money, but rather which household member(s) DECIDE how they earnings will be spent. Record a maximum of two household members. Select “N/A” if no earnings are made from [LIVESTOCK NAME].

## Section 4B. Change in Stock

This section collects detailed information on the change in the number of animals in the past 12 months, recording all entries (births, purchases, gifts received etc.) and exits (sales, deaths, losses, slaughtering, donations etc.). Information is collected on all animals except poultry (which are collected in the next section).

#### Respondent & Level of Reporting

Information in this section is also collected at the livestock name level, for all LIVESTOCK NAME reported in the previous sections (Section 4A, Q1 (except types of poultry, which are in the next section). This module is to be administered to the primary respondent or other household member concerned with managing the household’s livestock, most likely the same respondent for the previous section. Though only one respondent is expected for this section, that person may be assisted by other household members knowledgeable about these livestock details.

#### Question by Question

The change in stock is equal to:

BORN + PURCHASED + GIFTS/RECEIVED – SALES – DEATHS – LOSSES – SLAUGHTERED – GIVEN AWAY

Note that this will not necessarily be equal to the number they have currently have (s4Aq02), as it will also depend on how many LIVESTOCK NAME they had at the start of the last 12 months. It CANNOT, however, be more than the number the household currently owns. For example: if the household currently keeps 4 cows (s4Aq02=4) then the change in stock cannot be greater than 4. If the change in stock is 6, then one of the numbers reported (either here or in the previous section) is incorrect. If you are using CAPI, it will calculate the check for you. Either way, you will need to review the numbers with the respondent to determine which numbers need to be corrected.

**s04Bq01. How many [LIVESTOCK NAME] were born in the past 12 months?** This MUST be asked for every LIVESTOCK NAME that the household reported keeping in Section 4A, Q1. Prompt the respondent to report all animals born, even if some of them have since died.

**s04Bq02a. How many [LIVESTOCK NAME] did this household buy alive in the past 12 months?** This MUST be asked for every LIVESTOCK NAME that the household reported keeping in Section 4A, Q1. Prompt the respondent to report all animals purchased, even if some of them have since died. If no animal purchased, enter “0” and move on to q03.

**s04Bq02b, c, d. Value of the [LIVESTOCK NAME] purchased in the past 12 months.** To aid respondent memory recall, give him/her the option of reporting the value of purchased livestock in either TOTAL VALUE or UNIT PRICE, regardless of the number of LIVESTOCK NAME they purchased. If the respondent prefers to answer in TOTAL VALUE and more than one LIVESTOCK NAME is reported in q02a (purchased), then be sure that you record the total value of ALL of the LIVESTOCK NAME purchased (and not the value of just one LIVESTOCK NAME). For UNIT PRICE, be sure that the respondent provides the average price of a LIVESTOCK NAME purchased in the past 12 months. If the household traded the livestock for crops or other in-kind payments, the cash value of the in-kind payments should be calculated and added here as part of the total purchase price of the livestock.

**s04Bq03. How** **many [LIVESTOCK NAME] were received for free or gifts in the past 12 months?** Include here all LIVESTOCK NAME received by the household without purchase – gifts, received to keep for others, found, etc.

**s04Bq04a. How many [LIVESTOCK NAME] has this household sold alive in the past 12 months?** This MUST be asked for every LIVESTOCK NAME that the household reported keeping in Section 4A, Q1. Include sales done in-cash, and in-kind. If no animal sold, move on to q05.

**s04Bq04b, c, d. Revenue of the [LIVESTOCK NAME] sold in the past 12 months.** Note thatincludes sale of LIVE ANIMALS ONLY. (Animals slaughtered and sold for meat are recorded at Q11.) To aid respondent memory recall, similar to q02 above, give respondent the option of reporting the revenue of purchased livestock in either TOTAL VALUE or UNIT PRICE.

s04q06 to q07 are similar to those questions in Sections 1B and 2B.

**s04Bq08,8a,8b,8c. Deaths of [LIVESTOCK NAME].** Question 8 asks about the number of animals that died due to diseases, while question **8**a asks for number of animals that died due to other causes. Question 8b lists these possible other causes (drought, flood, old age…). The respondent shall report up to two main causes for each livestock name in the roster. In question 8c, the respondent is asked to report the number of animals that died due to each of the main causes reported in q08b.

**s04Bq09. How many [LIVESTOCK NAME] were lost (stolen, missing etc.) in the past 12 months?** Report 0 if no [LIVESTOCK NAME] were lost or stolen.

**s04Bq10**. **How many [LIVESTOCK NAME] were given away in the past 12 months?** Report 0 if no [LIVESTOCK NAME] was given away.

**s04Bq11. How many [LIVESTOCK NAME] has this household slaughtered in the past 12 months?** Report 0 if no [LIVESTOCK NAME] was slaughtered.

**s04Bq13-15.** Q13 and Q15 ask for percentages of the slaughtered animals used for different purposes. Q14 asks whether the household sold any of the slaughtered animal or their meat in the past 12 months, filtering for q15. The sum of the values reported across Q13 (for household consumptions) and Q15 (sales) must NOT exceed 100%; if so, review responses to both questions with respondents to identify which amount(s) should be corrected. It is, however, possible for the total across Q13 and Q15 to be LESS THAN 100%, as there are other uses/losses possible.

Please make sure that this percentage is from the number of the {LIVESTOCK NAME] slaughtered reported in Q11. For example, if a household slaughters two sheep and consumes half of the meat from these two sheep slaughtered then Q13 should be 50 percent. On the other hand, if the holding consumes a quarter of the meat, then Q13 should be 25 percent. The same applies for Q15.

## Section 4C. Change in Stock – Poultry

This section collects detailed information on the change in number of poultry in the past 3 months, recording all entries (births, purchases, gifts received etc.) and exits (sales, deaths, losses, slaughtering, donations etc.). The 3-month recall period is considered best practice for poultry due to the shorter reproductive cycles of poultry compared to other animals.

#### Respondent & Level of Reporting

This section is also collected at the poultry-name level, for all poultry reported in Section 4A, Q1. This module is to be administered to the primary respondent or other household member concerned with managing the household’s poultry; that person may be assisted by other household members knowledgeable about these livestock details.

#### Question by Question

Because poultry have a shorter life cycle than most livestock, the reference period for this section is the PAST 3 MONTHS. In all other aspects, the questions and related guidance are the same as in the previous section.

## Section 4G. Milk Production

This section covers production, consumption, and sales (quantities and values) of the milk collected by the household.

#### Respondent & Level of Reporting

This section is collected at the livestock-type (name) level, for all animals that are able to produce milk and are reported as YES in Section 4A, Q1. This module is to be administered to the primary respondent or other household member concerned with managing the household’s dairy production; that person may be assisted by other household members knowledgeable about these livestock details.

#### Question by Question

**s04Gq01. Did your household milk any [LIVESTOCK NAME] in the last 12 months?** Record YES if any LIVESTOCK NAME was milked in the past 12 months.

**s04Gq02. For how many months on average were [LIVESTOCK NAME] milked in the past 12 months?** The average lactation period is provided in number of months.

**s04Gq03. During these months in which [LIVESTOCK NAME] were milked, how many animals were milked on average each month?** This asks about the average number of animals producing milk DURING A MONTH in which animals were milked. It is not about the total number of animals that produced milk in the last 12 months.

Example: A household has 10 cows; they milked cows during 4 of the past 12 months; in the first two months they milked all the cows, then two died; they continued milking the rest of the cows for the other 2 months. This means that for the months they milked cows, they milked 9 on average: 10+10+8+8 = 36/4 = 9. For this question the correct response is 9.

**s04g\_q04. During these months in which [LIVESTOCK NAME] were milked, what was the quantity of milk milked on a typical day from the [LIVESTOCK NAME] herd?** This asks about the AVERAGE DAILY production of milk. It is not about the total production in the last 12 months, nor the total production in one month or one week. An accurate response may be difficult to obtain if “the average” is not commonly used by smallholder farmers in your country. In such cases, the accuracy of the information will depend on you as an enumerator working with them to determine this.

**s04Gq05. During these months in which animals were milked, how much of the [LIVESTOCK NAME] raw milk collected did this household consume per week?** Note that while this question is referring to the months in which the animals were milked, they are asking for average quantities PER WEEK. Do not include the quantity of milk processed for consumption.

**s04Gq06. During these months in which animals were milked, did this household sell the raw milk of [LIVESTOCK NAME]?** Record YES if any quantity of the milked [LIVESTOCK NAME] was sold during the months reported in question **s04Gq02.** Do not include the quantity of milk processed for sale. If no raw milk sold, move on to the next animal type.

**s04Gq007a. During these months in which animals were milked, how much of the raw milk of [LIVESTOCK NAME] milked did your household sell per week?** Do not include the quantity of milk processed for sale, but include both in-cash and in-kind sales or raw milk. Note that the question is asking for average quantities sold PER WEEK.

**s04Gq07b to q07c.** These questions refer to the sale of unprocessed raw milk, both in cash and in-kind. Respondent has the choice to report the average earnings from milk sales in a week during the months in which the animals were milked, or to report the average sale price of milk per litre.

## Section 4H. Egg Production

This section captures quantities of eggs laid by poultry as well as information on egg consumption and sales.

#### Respondent & Level of Reporting

This section is collected at the livestock-name level, for poultry that are able to lay eggs and are reported as YES in Section 4A, Q1. This module is to be administered to the primary respondent or other household member concerned with managing the household’s egg production; that person may be assisted by other household members knowledgeable about these livestock details.

#### Question by Question

**s04Hq01. Has any [POULTRY] raised by the household produced any eggs in the past 12 months?** Remind the household to also consider any eggs from poultry they had earlier in the 12 MONTH PERIOD, even if they have none at the time of the interview.

**s04Hq02. How many clutching periods did [POULTRY] have on average in the last 12 months?** Clutching periods usually last from 2-3 weeks. If a respondent says their birds have about one clutching period per month, please probe to ask if by every month they mean every 4-5 weeks (which would be 12 in 12 months) or every 3 weeks (which would be about 17 in 12 months). Clutching periods generally apply to local or traditional breeds, but not to improved breeds.

**s04Hq03.How many eggs per clutching did [POULTRY] lay on average?** This should be the number of eggs each [POULTRY] lays per clutching. So, for example, if the households had 10 hens laying eggs and each of their clutches had about 3 eggs, then record 3.

**S04Hq04. How many [POULTRY] had their clutching period in the past 3 months?** Report the total number for [POULTRY].

**s04Hq05. How many of the [POULTRY] eggs laid in the last clutching period were consumed by household members in the past 3 months?** Do not include any of the eggs the household gave out as gifts or used to make in-kind payments to non-household members. Include ONLY eggs consumed by the household.

**s04Hq06. Did this household sell the [POULTRY] eggs in the last 3 months?** Refers to both sales in cash and in-kind. If no egg sold, move on to the next animal type.

**s04Hq07a,b,c and d. Sale of eggs in the last 3 months**. Respondent shall include both sales in cash and in-kind**.**

## Section 4I. Other Livestock Products

This last section on livestock collects production and sales of other various livestock/animal products.

#### Respondent & Level of Reporting

This section is collected at the product level, covering a variety of other products that can be derived from livestock and other kept animals. This module is to be administered to the primary respondent or other household member concerned with managing the household’s animal-derived products; that person may be assisted by other household members knowledgeable about these livestock details.

#### Question by Question

**s04Iq01. Did this household produce any [PRODUCTS TYPE] in the past 12 months using the farm’s livestock?** This question should be asked about ALL items on the list before moving on to ask the follow up questions for items reported as YES. When asking respondents about these products, keep in mind that many of these products can be produced/derived from more than one type of animal. Only record YES if the household produces this product from animals they keep (and not, for example, if they purchase the raw material from others). Where it applies, livestock products can be filtered automatically by the CAPI system to display only those relevant to the animals raised by the household.

**s04Iq02 – s04Iq07.** If the household produced this item from more than one animal, report the combined total amount here. Note that in q02, there can be a wide variety of units (local or standardized) to cover for the different livestock products.

## Section 12. Non-residential buildings or structures used for livestock

This section collects information about non-residential buildings and structures used for activities related to livestock production (crop processing, PPP or fertilizer storage, etc.).

#### Respondent & Level of Reporting

The information is collected at holding level on the number, use and status of buildings or structures used for livestock production related activities (housing, production…). Additionally, the section collects information on shared housing humans/livestock in the previous 12 months. Fisheries activities are not included in this part. If they are important for the country, the national authority may decide to add a similar question covering fisheries and aquaculture-related activities.

#### Question by Question

**s12q01. Did the household use non-residential buildings or structures for livestock storage purposes in the past 12 months?** Record YES if the holding owned or used any non-residential building or structure for livestock storage purpose in the last 12 months. All of the buildings and structures used for livestock should be considered, including those buildings or structures that were not initially conceived for livestock-related uses.

**s12q02. If yes, how many were they?** Record the total number of non-residential buildings or structures used for livestock storage purposes in the past 12 months. The number should be greater than zero.

Questions q03 to q05 are asked for each type of livestock-related activities buildings or structures might have been used for, namely: housing of livestock other than poultry, housing of poultry, milking, production of dairy products, meat production (slaughtering and first cuts), meat processing, preparation of hides and skins and/or production of leather goods, storage for livestock-related machinery and equipment, other.

**s12q03. Did the holding use any building or structure for storing [LIVESTOCK USE] in the past 12 months?** The question allows to identify whether agricultural holdings have access to storage for a number of categories of livestock products.

**s12q04. What is the tenure of the buildings or structures used for [LIVESTOCK USE]?** Record the tenure of the used buildings or structures for livestock storage purpose. This information provides an understanding of the ability of agricultural holdings to manage the time of use or sale of their production, since access to storage capacity allows farmers to make decisions about marketing their commodities based on market prices, rather than simply selling them as they are produced.

**s12q05. Was the building or structure used to house [LIVESTOCK USE] also used to house humans?** Information is collected on whether any buildings or structures were used to house both humans and farm animals. The objective of this question is to collect information on some aspects of living conditions and health-related issues.

**s06q06. In addition to the buildings for livestock that you just listed, did the household own and not use any other non-residential building or structures for livestock storage purpose in the past 12 months?** If NO, move on to the next section.

**s06q07. If yes, how many were they?** Must be above 0.

## Section 13. Machinery and Equipment Used by the Household

This section collects information about the types, quantities, age and ownership of the machinery used on the holding.

#### Respondent & Level of Reporting

The information in this section is collected at holding level by individual types of equipment to capture the three main groups of machinery and equipment (manually operated, animal-powered and machine-powered) used as inputs on the holding, wholly or partly for agricultural production (machinery and equipment used exclusively for purposes other than agricultural production are excluded, as well as those owned by the holder but not used).

#### Question by Question

**s13q01. Did your household use [INPUT TYPE] during the past 12 months?** Record YES if the holding used INPUT TYPE.

**s13q02. How many [INPUT TYPE] were used by the household in the past 12 months?** Record the number of every used equipment type.

**s13q03, s13q05, s13q07 & s13q08. Tenure by the holding:** Record the tenure type by individual types of equipment (for example, all tractors or four-wheel drive tractors) in the last 12 months. Tenure type categories are:

* Owned: asked for all equipment types;
* Co-owned with another holding: ask only for machine-powered equipment (except those used for irrigation);
* Rented without an operator: ask only for machine-powered equipment (except those used for irrigation);
* Other arrangements: ask only for machine-powered equipment (except those used for irrigation).

**s13q04 & s13q06. Average age of [INPUT TYPE]:** Record the average age of respectively the:

* Owned INPUT TYPE: Ask the average age for all equipment type except for Manually operated equipment;
* Co-owned equipment type: ask only for machine-powered equipment (except those used for irrigation).

**s13q09 & s07q010. Ownership in the household:** Record who owns and who has the right to use the type of machinery and equipment in the household. For the two questions, make sure to ask for every equipment type as it is useful to know for example the degree of asset ownership by women, or the extent to which younger household members have active ownership of assets. It can also show whether there are different ownership profiles for different types of assets. A maximum of two household members can be listed for q09, and four for q10.

**s13q11. Did your household own and not use [INPUT TYPE] during the past 12 months?** Record YES if the household owned but did not use INPUT TYPE. If not, move on to q13.

**s13q12. If yes, how many were they?** Record the number of every owned but not used equipment type. Must be higher than 0.

**s13q13. Were any [INPUT TYPE] damaged, destroyed or lost in the last 12 months?** If not, move on to the next INPUT TYPE.

**s13q14. What was the main source of damage, destruction, or loss of these [INPUT TYPE]?**

**s13q15 & q16. Machinery and equipment losses.** Question 15 asks for total number of machinery and equipment that do not work at all anymore. Question 16 asks for those that still can be used, but do not work at their maximum capacity.

## Section 5A. Aquaculture Production

Aquaculture is RAISING fish, clams, etc. This section collects information on the amount and value of aquaculture production. Fishing (catching or gathering) activities are collected in the next section.

#### Respondent & Level of Reporting

After the initial filter question, information in this section is collected for each type of fish/seafood that the household “farms”. This module should be administered to the household member most familiar with the household’s aquaculture activities. Though only one respondent is expected for this section, that person may be assisted by other household members knowledgeable about these details.

#### Question by Question

**s05Aq01. Did any household members practice aquaculture on the household in the last 12 months?** This is a filter question for the entire section. If the household did not practice aquaculture during the past 12 months, the rest of this module is skipped. Record YES if the household practiced aquaculture during the PAST 12 MONTHS, even if they do not do so at present. To ensure that needed information is not overlooked, when households – especially in coastal areas – initially answer NO, probe to confirm that they indeed have not. Ensure that only aquaculture, and not fishing activities, is recorded in this section. Exclude the activity of household members who might be working in aquaculture on other holdings.

Note that different areas may have local names for some of the fish/seafood; the interviewer should work with their supervisor and the respondent to properly identify the fish/seafood varieties.

{SURVEY-SPECIFIC DESIGN NOTE: Add definitions, photos, or tips as necessary to help interviewers understand the difference between the various ITEMS listed.}

**s05Aq02. Did your household collect [ITEM] in the past 12 months?** MUST be asked for all listed items before moving on to collect further details on each with the follow-up questions.

**s05Aq03. What is the total quantity of [ITEM] collected in the past 12 months?** Must be higher than 0. Record the unit reported by the respondent.

**s05Aq04.How much of the [ITEM] collected in the past 12 months was consumed by household members?** If ITEM was processed (cooked, dried, filleted) before eating, ask the respondent to report the quantity of the unprocessed ITEM, when possible.

**s5AQ05. Did your household sell any of the [ITEM] collected in the past 12 months?** If not, move on to the next aquaculture product.

**s05Aq06.How much of [ITEM] did your household sell?** Refers to both sales in cash and in-kind of unprocessed product.

**s5Aq07 to q09. Value of aquaculture products sold**, either in total earnings over the past 12 months, or by capturing the average unit price, using the same unit as in s5Qq06. For production contracts that cover multiple years, be sure to ONLY INCLUDE the portion of sales that refer to THE PAST 12 MONTHS.

## Section 6A. Fishery Production

This section collects information on the amount and value of fishing production. Fishing includes catching or gathering existing fish/seafood (that have not been raised or cultured).

#### Respondent & Level of Reporting

After the initial filter questions, information in this section is collected for each type of fish/seafood that the household has caught in the last 12 months. This module should be administered to the household member most familiar with the household’s fishing activities and other household members knowledgeable about these details can assist the primary respondent. Exclude the activity of household members fishing for other households.

#### Question by Question

**s06Aq01. During the past 12 months have you or any household members caught fish, crustaceans, or clams/mollusks, for either own use or sale?** This is a filter question for the entire section. If the household did not practice **capture fishing** during the past 12 months, the rest of this module is skipped. To ensure that needed information is not overlooked, when households – especially in coastal areas – initially answer NO, probe to confirm that they have not.

Note that different areas may have local names for some of the fish/seafood; the interviewer should work with their supervisor and the respondent to properly identify the fish/seafood varieties.

{SURVEY-SPECIFIC DESIGN NOTE: Add definitions, photos, or tips as necessary to help interviewers understand the difference between the different ITEMS listed.}

**s06Aq02. Does your household keep records of its fishing production? Record yes or no.s06Aq03. During the last 12 months, did your household catch [ITEM]?** Q03-Q10 are only asked to households that do not keep fishing records. In such cases, Q03 MUST be asked for all listed ITEMS before asking follow-up questions for each item. If the respondent answered yes to q02, move on directly to q11.

**s06Aq04. During the past 12 months, how many months did your household catch [ITEM]?**

**s06Aq05. During those months how many days per month did your household catch [ITEM] on average?** This is asking only about the months when ITEM was fished and caught.

**s06Aq06.On a typical fishing day, on average, how much [ITEM] did your household collect?** This is asking ONLY for the average amount collected during one fishing trip. DO NOT record the total amount collected during the past month or over the past 12 months.

**s06Aq07. How much of the [ITEM] fished on a typical fishing day is consumed by the household?** Record only the quantity that was consumed BY THE HOUSEHOLD. If ITEM was processed (cooked, dried, filleted) before eating, ask the respondent to report the quantity of the unprocessed ITEM, when possible.

**s06Aq08. Did your household sell any of the [ITEM] fished on a typical/normal day?** This is asking ONLY about potential fish sales during one fishing trip. DO NOT consider the total sales in a month or over the past 12 months.

**s06Aq09.** **How much of [ITEM] did your household sell?** If ITEM was processed (cooked, dried, filleted) before selling, ask the respondent to report the quantity of the unprocessed ITEM, when possible. The question refers to sales both for cash and in kind.

**s06yAq10.** **What was the average unit price of [ITEM] in the past 12 months?** Note that the reference period has returned to the past 12 months.

**s06Aq11. What is the total quantity of [ITEM] fished in the past 12 months?** Q11-Q14 are only asked to household that keep fishing records. In such cases, Q11 QUANTITY MUST be asked for all listed ITEMS. Record 0 for any ITEM the household did not fish for during the last 12 months. These households will not answer Q3-Q10.

**s06Aq11 – s06Aq14d.** The protocol is similar to above, with the difference being that the reference period is the LAST 12 MONTHS.

## Section 7A. Forestry Production

This section collects information on the amount and value of forestry production derived from the collection or foraging of forest/wild products. For this survey, forest production includes items collected from *any area of non-cultivated land* such as forests, savannahs, grasslands, etc. As such, forest product includes any non-cultivated items collected or foraged from these areas. Important exceptions are captured aquatic resources, which are recorded in the previous section.

#### Respondent & Level of Reporting

After the initial filter question, information in this section is collected for each type of forest/wild product the household has collected or forages in the last 12 months. This module should be administered to the household member most familiar with the household’s foraging activities and other household members knowledgeable about these details can assist in responding.

#### Question by Question

**s07Aq01. During the past 12 months have you or any member of your household collected any forest products (such as wild fruits, honey, wood, mushrooms, wild animals, medicinal plants, etc.) or other natural (“wild”) products (e.g. from grasslands, fallows, etc.), for either your own use or sale?** This is a filter question for the entire section, so be sure the respondent understands the scope of items that are included here, and that you record YES even if they have only collected one wild/forest product during the past 12 months.

**s07Aq07 - s07Aq09.** Indicate if the household sold any of the [PRODUCT] they collected during the last 12 months~~?~~ Report how much of the product collected *on a typical day* was generally sold, including sales in cash and in-kind. Include only unprocessed products for s07Aq07 to s07Aq09.

## Section 9. Labor

This questionnaire does not include detailed sections on labor and instead collected only basic labor information. The section records which type of workers have been engaged in the various activities.

#### Respondent & Level of Reporting

This section collects information for different categories of workers across all agriculture-related sectors. This module should be administered to the household member most familiar with these various labor activities; other household members knowledgeable about these details can assist the primary respondent.

#### Question by Question

**Worker Categories**

For household members, the age threshold for adults is {X: this must be the same age used to define adult throughout other sections of the questionnaire.}.

Hired workers include any persons who work in exchange for any type of pay: money, food, or other in-kind payments (except the exchange for labor, which is treated separately – see below).

Exchange laborers or free laborers are those that work on the household farm only in exchange for labor on their own household farm (in the case of exchange laborers) or in exchange for nothing (in the case of free laborers).

**s09q01. Did [WORKER CATEGORY] work to grow and harvest crops in the past 12 months?** Record yes if at least one person in the referenced category did any work related to growing and/or harvesting crops during the PAST 12 MONTHS. The similar concept applies to Q2 & Q3, respectively for livestock raising and aquaculture activities.

**s09q04. How many [WORKER CATEGORY] worked on these activities in the past 12 months**? Report the total number of people (per referenced category) that worked on all activities mentioned in Q1, Q2, and Q3. For example, if the head of household worked on all 3 activities and was the ONLY female adult to work on all 3 activities, then for Q4 record 1 (and not 3).

## Section 14. Services

The information collected in this section is related to the transportation, communication and access to facilities necessary mainly for marketing, processing or storing the holding’s production, or for maintenance service for equipment.

#### Respondent & Level of Reporting

Information in this section is collected at holding level to identify the availability of facilities and the major difficulties faced by agricultural holdings during the past 12 months.

#### Question by Question

**s14q01. Identify the types of public transportation infrastructure that were available near the holding during the past 12 months.** The question asks about the accessibility to public transportation. The more the household is isolated the more difficulties to access to vehicles and public transportation stations.

**s14q02. Report the travelling time to the nearest public transportation station.** Record travel time to the nearest public transportation stations (hours and minutes) during the last 12 months.

**s14q03. Was the holding covered by an agricultural products collection network during the past 12 months?** Record YES if the holding was covered by an agricultural products collection network during the past 12 months.

**s14q04. Was access to an agricultural processing facility possible for the holding during the past 12 months?** Record YES if the holding accessed an agricultural processing facility during the past 12 months. An agricultural processing facility is a facility that adds value to, refines, or processes agricultural products. This could include, for example, grinding or milling of crops, pressing crops (e.g., to create oil), or processing livestock goods (e.g., turning milk into cheese). Facilities that dry, package, or can agricultural goods would also be included here.

**s14q05. Report the travelling time to the nearest agricultural processing facility.** Record travel time to the nearest agricultural processing facility (hours and minutes) during the last 12 months.

**s14q06. Were there facilities for repairing agricultural machinery in the holding's neighborhood during the past 12 months?** Record YES if during the past 12 months, there were facilities for repairing agricultural machinery in the neighboring of the holding.

**s14q07. Did the holding use the repair facilities?** Record YES if the holding used repair facilities.

**s14q08. Identify the main reason why the holding did not use the repair facilities.** If NO in the previous question, ask the main reason why the holding did not use repair facilities.

**s14q09. Were [COMMS] services accessed by the holding during the past 12 months?** Ask about the types of communication services and systems available to the holding during the past 12 months.

**s14q10. Were [COMMS] services used for the business and agricultural activities of the holding during the past 12 months?**  Record YES if the COMMS services was used for business and agricultural activities during the past 12 months.

## Section 99. End Survey

Here you will complete the final metadata details of the interview.

#### Respondent & Level of Reporting

This section should be completed by the enumerator.

#### Question by Question

**s99q01. PHONE NUMBER OF THE RESPONDENT.** This must be the phone number where you reached the respondent. If multiple phone numbers were used to reach the respondent to organize the interview, record here the LAST PHONE NUMBER used to successfully reach the respondent.

**s99q02. STATUS OF THE INTERVIEW.** Only record PARTIALLY COMPLETED if you were unable to complete the interview with the respondent AND you do not expect to be able to complete the interview in future calls. This may be the case if the respondent refuses to continue part way through the interview, or if for other reasons the household can no longer participate in the interview during the survey time frame.

**s99q03. END TIME OF SURVEY.** Record the date, the hour and (approximate) minute when the interview ended. This information must be recorded even if the final interview status is partially completed.

**s99q04. SURVEY DURATION.** The CAPI system will use the timestamps at the start/end of the interview to calculate the interview duration.