50x2030

INTERVIEWER MANUAL TEMPLATE

PME-AG Post Harvest

(Household Sector)

FEBRUARY 2025

This Example Manual corresponds to the PME-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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Contents

[I. Introduction 3](#_Toc195883898)

[II. Description of the Survey 3](#_Toc195883899)

[The survey sample 4](#_Toc195883900)

[Enumerator Preparation 5](#_Toc195883901)

[III. Questionnaire Sections 5](#_Toc195883902)

[Section 0A. Interview Cover 6](#_Toc195883903)

[Section 0B. Energy & Irrigation (General) 7](#_Toc195883904)

[Section 0C. Irrigation & Drainage on Cultivated Plots 8](#_Toc195883905)

[Section 0D. Pastures/Meadows Management & Irrigation 12](#_Toc195883906)

[Section 1A. Temporary (Non Vegetable) Crop Production 13](#_Toc195883907)

[Section 1V. Vegetable Crop Production 16](#_Toc195883908)

[Section 0E. Rice Production Methods 17](#_Toc195883909)

[Section 1B. Temporary Crop Destination 19](#_Toc195883910)

[Section 2A. Permanent Crop Production 22](#_Toc195883911)

[Section 2B. Permanent Crop Destination 23](#_Toc195883912)

[Section 3A. Crop By-Products 25](#_Toc195883913)

[Section 3B. Crop Processed Products 26](#_Toc195883914)

[Section 3C. Input Use 27](#_Toc195883915)

[Section 3D. Input Details 28](#_Toc195883916)

[Section 4A. Livestock in Stock 30](#_Toc195883917)

[Section 4B. Change in Stock – Large and Medium-Sized Animals 32](#_Toc195883918)

[Section 4C. Change in Stock – Poultry 33](#_Toc195883919)

[Section 4D. Milk Production 34](#_Toc195883920)

[Section 4E. Egg Production 35](#_Toc195883921)

[Section 4F. Other Livestock Products 35](#_Toc195883922)

[Section 4G. Livestock Breeding & Health 36](#_Toc195883923)

[Section 4H. Livestock Housing 37](#_Toc195883924)

[Section 4I. Livestock Feed & Water 38](#_Toc195883925)

[Section 4J. Livestock Equipment & Transportation 41](#_Toc195883926)

[Section 4K. Manure Production & Management 42](#_Toc195883927)

[Section 5A. Aquaculture Production 44](#_Toc195883928)

[Section 6A. Fishery Production 45](#_Toc195883929)

[Section 7A. Forestry Production 46](#_Toc195883930)

[Section 8. Other On-Farm Activities 47](#_Toc195883931)

[Section 9. Labor 47](#_Toc195883932)

[Section 10. Access to Information 48](#_Toc195883933)

[Section 11. Waste Management 51](#_Toc195883934)

[Section 12. GHG & Environmental Issues 51](#_Toc195883935)

[Section 13. Climate/Environmental Shocks & Adaptation Strategies 52](#_Toc195883936)

[Section 15. Profitability 53](#_Toc195883937)

[Section 16. Food Insecurity Experience Scale 54](#_Toc195883938)

[Section 99. End Survey 55](#_Toc195883939)

# Introduction

The rotating Agricultural questionnaire for Production Methods and Environment (PME-AG) is part of the 50x2030 Initiative to Close the Agricultural Data Gap (50x2030 Initiative). It is expected to be administered every three years to agricultural households and to holdings in the non-household sector.

The PME-AG is divided into two questionnaires – Post-Planting and Post-Harvest, to be administered at different time periods during the agricultural season. Both modules collect data for an annual CORE AGRICULTURE survey, which are comprised of the major components of agricultural production – crop, livestock, aquaculture, fishery, and forestry production. In addition, the PME questionnaire collects data on land use, soil conservation and irrigation methods, agroforestry, use of fertilizers, pesticides and seeds, crop processing, animal breeding and health, animal housing, watering and feeding, manure management, organic farming, energy use, waste management, protected areas and environmental issues, adaptation to climate change and hazards, access to digital and non-digital agricultural information and advice.

{To be revised and completed on a survey-by-survey basis}

# Description of the Survey

The PME-AG questionnaire is an important instrument of the 50x2030 Initiative’s survey system as it includes the questions required for the computation of SDG indicator 2.4.1. It is organized into two questionnaires, one to be administered post-planting, and one post-harvest. Each questionnaire is divided into sections. The PME-AG Post-Harvest (PH) covers all questions of the CORE-AG PH and collects additional information on energy use, irrigation methods, rice production methods, inputs use and associated practices, livestock breeding, health, feeding, housing and watering, manure production and management, access to information and extension services, waste management, GHG and environmental issues, experience of shocks and adaptation strategies.

This manual focuses on the PME-AG PH questionnaire, to be administered at the end of the agricultural year – after the harvest of the main agricultural season. Most of the survey has 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. A paper version of the questionnaire is available in Appendix I.

Table 1. Overview of PME AG-PH sections administered in the post-harvest visit

|  |  |  |  |
| --- | --- | --- | --- |
| **Topics and Questionnaire Sections** | **Level of Data Collection** | **Reference period** | **PME-AG vs. CORE-AG coverage** |
| 0A. Interview Cover | Household | Time of interview | Identical |
| 0B. Energy & Irrigation (General) | Household | Last 12 months/  Last 3 years | Only in PME |
| 0C. Irrigation & Drainage on Cultivated Plots | Parcel-Plot | Agricultural season | Only in PME |
| 0D. Pastures/Meadows Management & Irrigation | Parcel | Last 12 months | Only in PME |
| 1A. Temporary (Non-Veg) Crop Production | Parcel-Plot-Crop | Agricultural season | Identical |
| 1V. Vegetable Crop Production | Parcel-Plot-Crop | Agricultural season | Identical |
| 0E. Rice Production Methods | Parcel-Plot | Agricultural season | Only in PME |
| 1B. Temporary Crop Destination | Crop | Agricultural season | Identical |
| 2A. Permanent Crop Production | Parcel--Crop | Agricultural year | Identical |
| 2B. Permanent Crop Destination | Crop | Agricultural year | Identical |
| 3A. Crop By-Products | By-Product | Agricultural season | Only in PME |
| 3B. Crop Processed Products | Product | Last 12 months | Only in PME |
| 3C. Input Use | Input Type | Agricultural season | Expanded |
| 3D. Input Details | Household | Agricultural year | Only in PME |
| 4A. Livestock in Stock | Household/  Livestock Name/ Livestock Group | Last 12 months/  Present | Expanded |
| 4B. Livestock – Change in Stock (Large and Medium-Sized Animals) | Livestock Name | Last 12 months | Expanded |
| 4C. Livestock – Change in Stock (Poultry) | Livestock Name | Last 3 months | Expanded |
| 4D. Livestock – Milk Production | Livestock Name | Last 12 months | Expanded |
| 4E. Livestock – Egg Production | Livestock Name | Last 3 months | Identical |
| 4F. Livestock – Other Livestock Products | Product Type | Last 12 months | Expanded |
| 4G. Livestock – Breeding & Health | Livestock Group | Last 12 months | Only in PME |
| 4H. Livestock – Housing | Livestock Group | Last 12 months | Only in PME |
| 4I. Livestock – Feed & Water | Livestock Group,  mostly. Also: Household, Feed Type, Feed Crop Name | Last 12 months | Only in PME |
| 4J. Livestock – Equipment & Transportation | Livestock Group | Last 12 months | Only in PME |
| 4K. Manure Production & Management | Manure Type | Last 12 months | Only in PME |
| 5A. Aquaculture Production | Product Type | Last 12 months | Expanded |
| 6A. Fishing Production | Product Type | Last 12 months | Identical |
| 7A. Forestry Production | Product Type | Last 12 months | Expanded |
| 8. Other On-Farm Activities | Activity Type | Last 12 months | Only in PME |
| 9. Labor | Worker Type | Last 12 months | Expanded |
| 10. Access to Information | Information Type | Last 12 months/ Agricultural year | Only in PME |
| 11. Waste Management | Household | Last 12 months | Only in PME |
| 12. GHG & Environmental Issues | Household | Last 12 months | Only in PME |
| 13. Climate/Environmental Shocks & Adaptation Strategies | Household/  Shock Type | Last 12 months | Only in PME |
| 15. Profitability | Household | Last 3 years | Only if ILP is NOT also implemented |
| 16. Food Insecurity Experience Scale | Household | Last 12 months | Only if ILS is NOT also implemented |

## The survey sample

The {name of survey/project} is being carried out by {name of organization} and is designed to be representative of the agricultural population. The total scope of the 50x2030 survey system includes agricultural households and agricultural holdings, but this particular instrument is focused on agricultural households.That is, the information collected from the survey households will be used to estimate the characteristics of households with agricultural activity residing in {Country}. This is made possible by selecting sample households through the use of random selection procedures.

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). Agricultural holdings in the non-household sector will be subject to a separate questionnaire, allowing for a full picture of the agricultural sector in {country}.

The total number of EAs selected for this survey is XXX, with XXXX households to be interviewed in all. 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, and which households are potential replacements. Similar to the previous visit, households CANNOT be replaced 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 (more on this in the following sections). This is especially true for households that completed interviews during the Post Planting visit.

{Revise and add information as appropriate for the specific survey.}

## Enumerator **Preparation**

This post-harvest (PME-AG PH) manual is intended as a supplement to the post-planting (PME-AG PP) training manual. The PME-AG PP training manual includes additional survey guidance that all enumerators MUST know and follow, covering the following topics:

* Listing & household selection
* Team roles and enumerator responsibilities
* Administering the Questionnaire, including tips on conducting the interview, translation, reading and filling in the questionnaire, and common definitions used (including definitions of plots and parcels)

If you did not participate in the post-planting data collection or do not already have a copy of the post-planting training manual, ***be sure to ask your training supervisor for a copy of these chapters***.

{It is very strongly recommended that the chapters noted above, from the PME-AG PP training manual, are reviewed for a refresher as part of the PME-AG PH training. Survey management should ensure that every enumerator has a copy of these chapters for reference throughout the training and survey period.}

# Questionnaire Sections

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

Most, but not all of the questions are explained in this manual. Those where additional guidance or clarification are anticipated to ensure the questions and recorded responses are as intended for the purpose of this particular survey.Many of the questions throughout the questionnaire include instructions noted in capital letters, which are not repeated in this manual in the interest of brevity. You **MUST** be as familiar with those instructions as you are with the questions and the content of this manual.

Throughout this interview, you will refer to information provided during the post-planting period. As needed, there are prompts to help the respondent remember what had been reported.

## 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 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 economic and technical decisions related to the household’s agricultural activities.

#### Question by Question

**s0A\_q01 – s0A\_q04.** This information will be provided to you as part of the listing information or from the PME-AG PP visit when you are assigned the household by your supervisor.

**s0A\_q05. NAME OF HOUSEHOLD HEAD.** This will be provided from the PME-AG PP visit or the listing information. It is 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.

**s0A\_q06 & s0A\_q07.** Enter the unique enumerator code assigned to you and name. (Not required in Survey Solutions, SuSo)

**s0A\_q08 – s0A\_q11.** These questionsare 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 supervisor before recording as a failed interview.

**s0Aq08(a,b,c). 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 a competent respondent 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.}.

**s0A\_q09(a,b,c). 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 taking to and try to figure out which other person is best equipped to answer the questions.

**S0Aq10(a,b,c). Is it possible to start the interview**? Whenever the answer to S0Aq09 is Yes, you will ask if they are ready to start the interview.

**s0A\_q11(a,b,c). Reason why the household cannot be interviewed.** Answers only if s0A\_q09(a,b,c) or s0A\_q10(a,b,c) 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 from 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.}

**s0A\_q14. NAME OF THE RESPONDENT TO THIS SECTION**. When using Survey Solutions, the list of household members will be pre-loaded and the name of the respondent can be selected.

**s0Aq15a. Are you or any member of your household growing 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.

## Section 0B. Energy & Irrigation (General)

This section collects basic information on the source of energy used and initial details on irrigation.

#### Respondent & Level of Reporting

The Respondent should be an adult household member – at least X years of age – and must have knowledge of the household agricultural activities. Information is collected at the farm/household level.

#### Question by Question

**s0B\_q01. What energy source(s) was(were) used for the agricultural activities of this household during the last 12 months?** Record only those sources that are used for agricultural activities. DO NOT include sources used by the household for other activities (cooking, lighting their dwelling, etc). DO NOT read options aloud, instead code the answer that matches the response given by the respondent. If they start by reporting only one source, probe to confirm whether there are any additional sources.

* Petroleum fuels (code 2) includes gasoline, kerosene, diesel, etc.
* {Insert here, and in the questionnaire itself, specific examples of companies/providers in the country for as many of the sources as possible}

**s0B\_q02. Was irrigation used on any parts of this household during the last 12 months?** Irrigation is any process through which water is moved from a water source to apply it to an agricultural crop. Types of irrigation include surface irrigation, sprinklers, drips, bubblers, etc., as well as partially-controlled irrigation methods (spate irrigation, canals for crop cultivation in wetland areas, and so on). Water for irrigation may come from various sources, including rivers, dams or wells, water reservoirs, etc. Record YES if water was applied to any crops at least once during the reference period. Only count rain if it was harvested/collected in a reservoir and then used, and not rain that fell directly onto crops. If irrigation was NOT used, probe further to obtain the reason why it was not used.

**s0B\_q03** **What was/were the source(s) of irrigation during the last 12 months?** Indicate all sources used by the household.

**s0B\_q04. Considering the total area that was irrigated on the household's farm during the last 12 months, [IRRIGATION SOURCE] was…** This question is asked for each of the sources reporting in s0B\_q03. For each one, be sure to read all answer options.

**s0B\_q08a. In the last 3 years, was there always enough water available every time you needed it?** If at any time over the last 3 years, the household needed water for irrigation and it was not available at the time they needed (ex: they had to wait past their ideal time for irrigation) or there was not enough available (ex: they were only able to use half as much water as the wanted to use), then the response is NO.

**s0B\_q09. In the last 3 years, were there any organizations dealing with water allocation in the area where household’s farm is located?** This question collects information on the organizations (both formal and informal) responsible for water allocation in the area where the household’s farm is located. Record 0 if there is no such organization. If organizations exist, probe to clarify whether they are working efficiently.

## Section 0C. Irrigation & Drainage on Cultivated Plots

This section collects more detailed irrigation information for each cultivated plot. It is only asked if the household reported any use of irrigation in the previous section (s0B\_q02).

#### Respondent & Level of Reporting

The information is collected at the plot level for all plots that were reported as being cultivated during the Post Planting interview. The Respondent should be an adult household member and must have knowledge of the household agricultural activities. It is possible for different plots to have a different respondent.

#### Question by Question

**PARCEL ID and PLOT ID.**  This information will be pre-filled based on information reported by the household during the PME-AG PP interview.

**s0C\_q02. Was [PLOT] irrigated during [REFERENCE AGRICULUTRE SEASON]?** This section is the first one in the PH questionnaire that is asked at the plot level. Review the various parcel-plot names with the respondent to ensure they are clear as to which name refers to which plot. Record YES if water was applied to the plot at least once during the reference period. Only count rain if it was harvested/collected in a reservoir and then used, and not rain that fell directly onto crops. For examples of other types of irrigation, review answer options for the next question.

**s0C\_q03. What was the main irrigation method used on [PLOT] during [REFERENCE AGRICULUTRE SEASON]?** You will need to understand the different types of irrigation to record the respondent’s response under the correct code.

{IRRIGATION METHODS COULD BE REVISED TO MATCH COUNTRY-SPECIFIC CASES – CONSIDER INCLUDING PICTURES OR USING SHOWCARDS TO ILLUSTRATE THE DIFFERENT METHODS LISTED}

CONSIDER INCLUDING PICTURES OR USING SHOWCARDS TO ILLUSTRATE THE DIEFFERENT VARIETIES LISTED

* Code 1. **Surface irrigation** (furrow, border strip and basin): one of the oldest methods of irrigating in which farmers flow water down small trenches that run through their crops. A system for partially or completely covering land with water for the purpose of irrigation.
* Code 2. **Sprinkler irrigation**: a method of applying irrigation water that simulates rainfall. Water is distributed under pressure through a system of pipes, usually by pumping. It is then sprayed into the air over the entire soil surface through spray heads, so that it breaks up into small water drops that fall to the ground.
* Code 3. **Drip irrigation**: form of irrigation that saves water and fertilizer by allowing water to drip slowly to the roots of many different plants, either onto the soil surface or directly onto the root zone, through a network of valves, pipes, tubing, and emitters.
* Code 4. **Spray or microsprinklers:** operate at low pressure and are designed for areas where drip irrigation is not advisable, for keeping plant foliage constantly moist, or when overhead watering is required.
* Code 5. **Bubbler irrigation**: a localized, low-pressure, solid permanent installation system used mainly in tree groves. Each tree has a round or square basin that is flooded with water during irrigation. The water infiltrates into the soil and wets the root zone. The water is applied through bubblers, which are small emitters placed in the basins.
* Code 6. **Equipped wetland and inland valley bottoms**: refer to lowland areas subject to seasonal flooding that are used for cropping when covered with water. Water control structures – such as canals – may be constructed to help in crop cultivation. Developed mangroves are included in this category.
* Code 7. **Equipped flood recession cultivation**: areas along the edges of rivers or other water bodies where cultivation occurs, making use of water from receding floods. Floating rice is included as a flood recession crop.
* Code 8. **Spate irrigation**: a method of random irrigation using floodwater. The floods or spates from seasonal rivers are diverted into adjacent embanked fields for direct application. A stone or concrete structure raises the water level within the channel to be diverted to the nearby cropping area.

The images below show some of the irrigation methods described above:

Surface irrigation

 (Furrow)

A close-up of a rice field

AI-generated content may be incorrect. A river flowing through a forest

AI-generated content may be incorrect. (Basin)

A person standing on a pool

AI-generated content may be incorrect. (Border)

Sprinkler irrigation

 

Drip irrigation

A field with drip irrigation

AI-generated content may be incorrect. A black pipe with a sprinkler on it

AI-generated content may be incorrect.

Bubbler irrigation

A water sprinkler pouring out of a hose

AI-generated content may be incorrect. A sprinkler system with water running out of it

AI-generated content may be incorrect.

Microsprinkler

A close-up of a sprinkler

AI-generated content may be incorrect. Close-up of a sprinkler spraying water

AI-generated content may be incorrect.

Spate irrigation

A water channel in a field

AI-generated content may be incorrect.

**s0C\_q04. Does [PLOT] have any drainage system?** Surface drains only eliminate surface water, while subsurface drains can remove excess water in the soil. Record NO if there are no drains or if the drainage system is not working (for example, clogged).

## Section 0D. Pastures/Meadows Management & Irrigation

This section collects information on land used for pasture or meadows, as reported in the PP interview.

#### Respondent & Level of Reporting

This information is collected at the parcel level for parcels that were used partially or entirely for meadows and pastures, both temporarily or permanently, as reported during the Post Planting interview. The respondent should be an adult household member and must have knowledge of the household agricultural activities. It is possible for different parcels to have a different respondent.

#### Question by Question

**PARCEL ID.**  This information will be pre-filled based on information reported by the household during the PME-AG PP interview.

**s0D\_q02. During the last 12 months was any of the pasture/meadow land on [PARCEL] renewed by reseeding, fertilizing, adding micronutrients, aerating, etc.?** For a better understanding of renewal options, review response codes in s0D\_q04 (reseeded pasture areas, fertilized pasture areas, added micronutrients to pasture areas, aerated pasture areas).

**s0D\_q03. Of the total area of the [PARCEL] dedicated to pasture/meadow, approximately what share was renewed during the last 12 months?** Asked for any parcel with renewed pasture/meadow. Answer codes include both percentages and portions (fractions) to more easily capture respondents reporting style. If the respondent is unsure of amount, you can help by asking them by 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.

**s0D\_q05. Was rotational grazing practiced on the (part of the) [PARCEL] dedicated to pasture/meadow during the last 12 months?** Rotational grazing – also known as cell grazing, mob grazing and holistic managed planned grazing – describes a variety of closely-related systems of forage use in which herds and/or flocks are regularly and systematically moved to fresh rested areas, with the intent to maximize the quality and quantity of forage growth. One primary goal of rotational grazing is to ensure a vegetative cover over all grazed areas at all times, and to prevent the complete removal of all vegetation from the grazed areas.

**s0D\_q06. Are there any trees/shrubs (e.g., timber trees, fuelwood trees, leguminous trees, fodder trees, fruit trees, etc.) on the (part of the) [PARCEL] dedicated to pasture/meadow (including trees/shrubs planted along plot's borders or contours)?** Record YES even if there is at least one tree or shrub on the part of the parcel used for pasture/meadow.

**s0D\_q10 & s0D\_q11.** These questions ask about irrigation of the pasture/meadow land and will only be asked if irrigation use was reported in Section 0B. See the related section guidance above for more information on irritation methods.

## Section 1A. Temporary (Non Vegetable) Crop Production

For this and the following sections, the crops that farmers declared they had cultivated in the post-planting interview 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. This section focuses on seasonal non-horticultural crops. 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, 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. Note that it is possible to have different respondents for different crop-plot-parcel entries.

#### Question by Question

**s01A\_q01. PREFILL ALL PARCEL-PLOT-CROP INFORMATION FOR TEMPORARY CROPS FROM POST PLANTING QUESTIONNAIRE.**  This information will be pre-filled based on information reported by the household during the PME-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.).}

**s01A\_q02. You indicated that [CROP] was planted on [PLOT] on [PARCEL]. What organic fertilizers, if any, did your household apply on the [CROP] on this [PLOT] during the [REFERENCE AGRICULTURAL SEASON]?** This will effectively be the first question you ask the respondent about the harvest of crops and where you will indicate which crop-plot-parcel you are referring to for the following questions as well. If they have grown a crop on more than one plot-parcel, be sure they are clear about WHICH CROP-PLOT-PARCEL you are referring to.

Fertilizers are divided into organic and inorganic:

* **Organic fertilizers** refer to manure, guano, slurry, compost etc. that have been produced from a natural source (e.g. animals).
* **Inorganic fertilizers** are industrial fertilizers containing minerals or synthetic chemicals. The most used inorganic fertilizers include Nitrogen fertilizers, Potassium (or Potash) fertilizers, Phosphate fertilizers, Calcareous.

This question asks if the household has applied any organic fertilizer on the crop-plot-parcel and what type of organic fertilizer. Select all types that the household used during the reference period regardless of when or how frequently they were applied. You should refer to the following definitions of organic fertilizer types:

* **Solid manure** is animal feces rich in nutrients.
* **Liquid manure/Slurry** is created from cow manure and water and provides a natural fertilizer that farmers can use to encourage the growth of grass and other crops. Slurry is usually stored in a tank or lagoon before it is applied to farmland as fertilizer.
* **Vegetable fertilizers** include farm refuse (crop residues, stubble, weeds, etc.), compost (vegetable matter digested aerobically), plant residues from industrial or food processing plants (e.g. coffee pulp, coconut husk, etc.), non-edible cakes from oilseed crops, etc.
* **Stabilized sewage sludge** is sludge produced in wastewater treatment, processed and fit for use as fertilizer.
* **Biostimulants** are last-generation organic fertilizers. They are plant extracts containing a wide range of bioactive compounds. These products are usually able to improve the nutrient use efficiency of the plant and enhance tolerance to biotic and abiotic stresses.

**s01A\_q03. What inorganic (chemical) fertilizers, if any, did your household apply on the [CROP] on this [PLOT] during the [REFERENCE AGRICULTURAL SEASON]?** This question asks if the household has applied any inorganic fertilizer on the crop-plot-parcel and, if so, what type of inorganic fertilizer. Select all types that the household used during the reference period regardless of when or how frequently they were applied. Include also the chemical fertilizers that were mixed with any organic fertilizer reported in previous question (e.g., manure), if any.

**s01A\_q04. What pesticides, if any, did your household apply on the [CROP] on this [PLOT] during the [REFERENCE AGRICULTURAL SEASON]?** Pesticides are chemicals used to protect crops from fungal diseases and pests (both external and soil-borne).

* Insecticides are specifically for controlling insect pests. Common insecticides are cypemethrins (e.g. Ripcord, Cymbush, and Sherpa) and primiphos methyl (Actelic) for the control of storage pests.
* Herbicides are chemicals used to control the spread of unwanted weeds and plants. They can be solid or liquid.
* Fungicides are used to control fungal diseases. A common fungicide is chlorothalonil (Daconil).
* Rodenticides are chemicals made and sold for the purpose of killing rodents.
* {Be sure to include as additional examples any products that are commonly used in the country/region of the survey.}

Select all types that the household used during the reference period regardless of when or how frequently they were applied.

**s01A\_q06. Did your household harvest any of the [CROP] planted on this [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 is given in the next question. If the crop was harvested, either entirely or partially, 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.

**s01A\_q07. Why did your farm not harvest any [CROP] from this [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 the main TWO reasons.

**s01A\_q09.** **How much [CROP] in TOTAL did your household harvest from this [PLOT] during the [REFERENCE AGRICULTURAL SEASON]?** 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 the condition of the crop in addition to the quantity and unit sold.

It may be easier for the respondent to recall the harvest amount in several different conditions and states. Record each condition/state separately. For example, a respondent may indicate they harvested 50 kilograms of green maize on the cob, plus one 100kg bag of maize grain. First record the green maize on the cob then end separately the maize grain. If the household still plans to harvest more of this crop form this plot, do not estimate future harvest – ONLY record amounts actually harvested already, at the time of the interview.

**s01A\_q10. 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 at the time of the interview, regardless of whether they managed to harvest all of the crop planted on the plot.

**s01A\_q11. Is the area that has been harvested of [CROP] from [PLOT] less than the area that was 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.

**s01A\_q12. Why was the area harvested of [CROP] on [PLOT] less than the area planted?** If there are multiple reasons, ask the respondent to provide the TWO MAIN reasons.

**s01A\_q13. 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 asking them by 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.).

**s01A\_q14. Approximately what percent of [PLOT] area planted with [CROP] does your household 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 {indicate 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.

This and the following questions are askedONLY IF the household has not finished all planned harvesting of this crop on this plot (i.e. answer at s01A\_q10 is NO) at the time of the interview. Work with the respondent to estimate the share of the plot area planted with the crop that the respondent expects to harvest by the end of the reference period. 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.).

**s01A\_q15. 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?** This refers to PRE-HARVEST losses, that is losses that might have occurred before the process of harvesting begins, and may be due to insects, weeds, and [rusts](https://en.wikipedia.org/wiki/Rust_(fungus)).

**s01A\_q16. Why was the area not harvested?** Read out the answer options to the respondent and select the main two reasons.

**s01A\_q17. Approximately what percent of the [PLOT] area planted with [CROP] in the [REFERENCE AGRICULTURAL SEASON] was not harvested due to these shocks?** Work with the respondent to estimate the share of the plot area planted with the crop that could not be harvested due to the reasons reported at s01A\_q16. 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.).

## Section 1V. Vegetable Crop Production

The Food and Agriculture Organization has classified some seasonal crops as “horticultural” 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.

**s01V\_q06. 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.

**s01V\_q11.** **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.

**s01V\_q12. On average, how many beds of [CROP] on [PLOT] did your household cultivate in each planting during the [REFERENCE AGRICULTURAL SEASON]?** Record the average number of beds (as defined above) cultivated per planting done during the reference period (ex: if 3 plantings were done in the reference period and 10 beds were cultivated in the first planting, 10 in the second and 20 in the third, the average number of beds per planting in that season is (10+10+20)/3 ≈ 13).

**s01V\_q13. What is the average size of a bed?** Answers are only allowed in square meters.

**s01V\_q14. 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 s01V\_q11). If they were not divided into beds, then ask s01V\_q15 instead.

## Section 0E. Rice Production Methods

This section collects essential information on rice production methods, such as the number of rice cultivating cycles during the reference period, the average interval between two cultivating cycles and the length of the growing period for rice cultivation, by type of rice, and so on.

#### Respondent & Level of Reporting

This information is collected at the plot level for all rice plots reported during the Post Planting interview. The respondent, or respondents, should be adult household members with knowledge of the household agricultural activities.

#### Question by Question

**PARCEL ID and PLOT ID.**  This information will be pre-filled based on information reported by the household during the PME-AG PP interview.

**s0E\_q02. How many complete rice cultivating cycles were done on this [PLOT] in the [REFERENCE AGRICULTURAL SEASON]?** Only count COMPLETED cultivation cycles.

**s0E\_q03. What was the average interval between two rice cultivating cycles on this [PLOT]?** This refers to the amount of time between the end of one cultivation cycle and the start of the next cycle (and NOT, for example, the time between the start of each cycle such as “we start a cycle every 4 months”).

**s0E\_q04. Which type(s) of rice was(were) grown on this [PLOT] in the [REFERENCE AGRICULTURAL SEASON]?** If the respondent is unsure of the type of rice grown, encourage them to seek out this information from other household members familiar with the farm workings. If they are unsure, ask about the characteristics of the rice so that you can select the appropriate code(s).

{THESE CODES AND EXPLANATIONS MUST BE REVISED TO MATCH COUNTRY-SPECIFIC CODES – CONSIDER INCLUDING PICTURES OR USING SHOWCARDS TO ILLUSTRATE THE DIEFFERENT VARIETIES LISTED}

* **Japonica** – grains are short and roundish, and spikelets are awnless to long-awned; grains do not shatter easily; amylose content is 0 - 20 percent.
* **Indica** – grains are long to short, slender, somewhat flat, and the spikelets are awnless. Indica rice shatters more easily; amylose content 23 - 31 percent.
* **Aromatic rice** – a medium- to long-grained rice known for its nut-like aroma and taste. Varieties include basmati, jasmine, Tulaipanji, Wehani. etc.
* **Glutinous rice** – also called sticky rice, sweet rice or waxy rice, this type of rice is grown mainly in parts of Asia. It presents opaque grains, a very low amylose content, and is especially sticky when cooked.

**s0E\_q06. What was(were) the irrigation methods and water regimes applied to grow [RICE VARIETY] on this [PLOT] in the [REFERENCE AGRICULTURAL SEASON]?** Note that the methods for rice vary somewhat from other crop types.

* **Irrigated – continuously flooded** indicates a field that has standing water throughout the rice-growing period and may only dry out for harvest (end-season drainage).
* **Irrigated – intermittently flooded with single aeration** refers to a plot that has one aeration period of more than three days during the growing period.
* **Irrigated – intermittently flooded** refers to a plot with more than one aeration period of more than three days during the growing period.
* **Regularly rain-fed** means rice is grown on levelled bunded fields to allow for an accumulation of floodwater on the surface during heavy rains, in areas that depend entirely on rain for water supply.
* **Deep-water** irrigation is similar to rain-fed, with the distinction that it is usually flooded deeper than 50 cm for one month or longer during the growing season.
* **Drought-prone.**

**s0E\_q07. Which of the following organic inputs, if any, were added to the soil before cultivating rice on this [PLOT] in the last [REFERENCE AGRICULTURAL SEASON]?** Read aloud each irrigation method so that the respondent can report Yes or No.

* **Compost** is a mixture of decaying organic substrates – for example from leaves and manure. It can also refer to organic substrates subjected to biological decomposition and stabilization and converted into a final product that is stable, free of pathogens and plant seeds, and can be beneficially applied to land.
* **Green manure** are plants that are grown to provide soil cover and to improve the physical, chemical and biological characteristics of soil. They may be sown independently or in association with crops.

**s0E\_q08. What planting method was used for the rice on this [PLOT] – transplanting, direct seeding (e.g., broadcasting or other techniques), or another method?** If the plot had more than one method, record the MAIN method.

* **Rice transplanting**: prior to transplanting, seedlings must be raised in a nursery; then, young plants are transplanted. Transplanted crops take longer to mature due to transplanting shock (stress from being pulled from the soil and re-establishing fine rootlets). Transplanting is commonly practiced as a method of weed control for wet or puddled fields. It requires less seed, but much more labor compared to direct seeding.
* **Direct seeding** or **seed broadcasting**: seeds are sown onto a dry soil surface and then incorporated into the soil, either by plowing or harrowing.

**s0E\_q09–s0E\_q13.** Are activated depending on the planting method. If the planting method is direct seeding or another method different from transplanting then s0E\_q09asks to report the quantity of seeds per unit of area (e.g., acre, hectare). If the planting method is transplanting, instead, s0E\_q010asks to report the number of plants per unit of area (e.g., acre, hectare) in addition to the age of rice plants at the time of transplanting and the way in which rice plants were planted in the soil (randomly or following a straight row) and the distance between rice plants, if planted in a row.

**s0E\_q14. How many complete weedings were done for rice on this [PLOT] during the [REFERENCE AGRICULTURAL SEASON]?** As weeding is typically done at different stages (e.g., before planting during field preparation, 2-3 weeks and 4-6 weeks after planting), it is considered complete when rice plants are well-established, and the weed pressure has been minimized to the point where it won't impact rice growth. Depending on the weed control methods (manual weeding, herbicide application, or mechanical weeding), this can vary.

**s0E\_q15. Were the weedings on [PLOT] mainly done manually, mechanically, or using chemicals?**

* **Manual weeding** (or hand weeding) consists in pulling out weeds by hand or uprooting weeds by using small hand tool.
* **Mechanical weeding** involves the use of mechanical equipment to remove weeds from soil. It is more often practiced when rice is transplanted in straight rows.
* **Chemical weeding** is any technique that involves the application of a chemical (herbicide) to weeds or soil to control the germination or growth of weeds.

## 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 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.

**s01b\_q03. Do you have any of the harvested [CROP] in storage currently?** Record YES if any quantity of the harvested crop inunprocessed 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\_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*,~~,~~* d~~d~~o 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\_q10. 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\_q~~09~~10a, 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. Note that the reference period for this section is different than in previous sections, as it covers a full 12-month period around the agricultural season.

The section allows for the estimation of pre-harvest losses, as well as the dates of the production period of each permanent crop. The questionnaire allows reporting the actual and expected harvests in local units of measurements and in different states and conditions. The list of permanent crops under cultivation by the household, as reported during the post-planting visit are transcribed from the PME-AG PP questionnaire.

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 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.

#### Respondent & Level of Reporting

This information is collected for each TREE OR PERMANENT CROP on each PARCEL. Contrary to Section 1A for temporary crops, plot level disaggregation is not relevant here. So, for example, if the household has mango trees on 3 different plots across 2 parcels, information on those trees will be recorded in 2 separate rows (e.g.: mango tree Parcel1, and mango tree Parcel 3). The respondent should be the household member most knowledgeable about the harvest activities of specific crop-parcel activities. Note that it is possible to have different respondents for different crop-parcel entries.

#### Question by Question

**PREFILL PARCEL AND CROP IDs OF PERMANENT CROPS.**  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.).}

**s02A\_q02 – s02A\_q05.** The reference period for these questions is {REFERENCE AGRICULTURAL YEAR} and the level of reporting is CROP-PARCEL. In all other aspects, the questions and related guidance are the same as in Section 1A.

**s02A\_q06. How many of the [PERMANENT CROP] plants on this [PARCEL] were in production in the [REFERENCE AGRICULTURAL YEAR]?** A plant is considered“in production” if it was producing crops at any time during the [REFERENCE AGRICULTURAL YEAR].

**s02A\_q07 – s02A\_q08.** The reference period for these questions is {REFERENCE AGRICULTURAL YEAR} and the level of reporting is CROP-PARCEL. In all other aspects, the question and related guidance is the same as in Section 1A.

**s02A\_q09. In the last harvest period, were there any losses of [PERMANENT CROP] on this [PARCEL] before the harvest?** This refers ONLY to losses that occurred before the process of harvesting begins. If the plant is harvested throughout the year, the losses still refer to only the last harvest period and not over the entire [REFERENCE AGRICULTURAL YEAR]. Any losses after harvest (while in storage, transport, etc.) should not be considered or recorded here.

**s02A\_q10. Why were there losses before the harvest?** Read out the answer options to the respondent and select the main two reasons.

**s02A\_q11. How much [PERMANENT CROP] did your household harvest from this [PARCEL] during the [REFERENCE AGRICULTURAL YEAR]?** The respondent may answer in several different conditions. Record each condition separately. If a harvest period began before the start of the reference period and ended during the reference period, probe the respondent to estimate the amount harvested ONLY DURING the reference period.

## Section 2B. Permanent Crop Destination

Same as for Section 1B, this section asks about permanent crops. 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. It collects information on the use permanent crops, including sales. This section also collects the intended destination of stored harvest (in percentage terms), as part of the harvest may still be stored for future utilization at the time of the interview.

Quantities can be reported in local units of measurements and in different 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 parcel(s) it was harvested from. 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

**s02B\_q00. CROP NAME.** Every crop reported in section 2A and HARVESTED during the reference period MUST be listed here, only ONCE. {In SuSo and most other CAPI programs, the crop list will be automatically pre-populated based on the crops reported as harvested in Section 2A}.

**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.

**s02b\_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 actual 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 3A. Crop By-Products

By-products are produced/created as a result of making or growing something else. For example, if corn husks are removed from the corn, but dried and used for something else, then the corn husk is a by-product of the corn. In this section, only ask about the relevant by-products for each household. For example, if a household did not cultivate rice, then in this section you will not ask about rice straw or rice husks.

#### Respondent & Level of Reporting

This section collects information at the BY-PRODUCT level – all information on a by-product is collected together, regardless of which parcel(s) it was harvested from. 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 by-products.

#### Question by Question

**s03A\_q01. Did the household collect any [CROP BY-PRODUCT] during the [REFERENCE AGRICULTURAL SEASON]?** This question is asked for ALL crop by-products; afterwards, follow up questions are to be asked for each by-product, one by-product at a time. Note that the focus is on crop by-products that were exported from the field, regardless of their use. DO NOT include crop by-products that were left on the field (e.g., to be incorporated into the soil).

**s03A\_q02. How much [CROP BY-PRODUCT] was collected during the [REFERENCE AGRICULTURAL SEASON]?** The reference period is {REFERENCE AGRICULTURAL SEASON}. Note that the quantity to be reported here is only the quantity of the by-product collected from the crop. DO NOT include any quantity of the crop harvested that has been already collected in sections 1A, 1V, 0E.

**s03A\_q03. How did your household use the [CROP BY-PRODUCT]?** Select all choices that apply.

**s03A\_q04a – s03A\_q04d.** Refer to section 1B above for instructions. For s03A\_q04a and s03A\_q04d use the same unit in which s03A\_q02 was recorded.

## Section 3B. Crop Processed Products

Processing of agricultural products is not strictly agricultural production but is linked to the household’s agricultural activities. For example, growing and harvesting rice is an agricultural activity (and as such, is already captured in previous sections); processing that rice into rice flour is a crop processing activity, which is what is captured in this section. In this section, only record on-farm processing of own-produced commodities, which means ***only crops that the household both grew and processed themselves***. As such, only ask about products processed from the crops the household has reported harvesting. {In CAPI, these products will be automatically populated into the questionnaire for each household.} For example, if a household did not cultivate rice, then in this section you will not ask about rice flour. Likewise, if a household purchased rice as an input to make and sell rice flour, you will not ask about it in this section.

#### Respondent & Level of Reporting

This section collects information at the PRODUCT level – all information on a processed product is collected together, regardless of which plot(s) or parcel(s) it was harvested from. The respondent should be the household member most knowledgeable about the processing activities of specific crop activities. Note that it is possible to have different respondents for different products.

#### Question by Question

**s03B\_q01. During the past 12 months, did this household process any of the crops produced on the farm?** This is the only question that is asked at the household level (instead of the product level). Record YES if the household processed ANY products from their crops. Because it serves as a filter question for the entire section, an inaccurate NO response will risk collecting important data. Before recording a NO, probe the respondent and provide examples to ensure they understand what types of products you are asking about.

**s03B\_q02. Did the household produce any [CROP PRODUCT] in the past 12 months?** This question is asked for ALL crop products; afterwards, follow up questions are to be asked for each product, one product at a time.

**s03B\_q03.** **To produce [CROP PRODUCT] did you use the harvest from the past 12 months, stocks from previous years, or a combination of both?** After asking the initial question, probe to clarify whether they MAINLY or ONLY used the source indicated. Do not assume an answer code based on their initial response as it may not be initially clear that the response categories include this additional nuance.

**s03B\_q04. How much [CROP PRODUCT] was produced in the past 12 months?** The reference period is the past 12 months.

**s03B\_q05 – s03B\_q07d.** Refer to section 1B above for instructions. For s03B\_q05, s03B\_q07a and s03B\_q07d use the same unit in which s03A\_q04 was recorded.

## Section 3C. Input Use

This section collects information on the types, amounts, and sources of fertilizers and pesticides used across ALL parcels by farmland type (i.e. cultivated with crops, left fallow, grassland/pastureland). ONLY ASK ABOUT the input types reported by the household (in Sections 1A, 1V, and 2A). {In CAPI, the appropriate inputs will be automatically populated into the questionnaire.}

#### Respondent & Level of Reporting

Information is collected for each INPUT TYPE used on cultivated, fallow, or grassland/pastureland.

For cultivated land, the respondent should be the same as for Sections 1A, 1V, and 2A. For fallow land, information can likely be provided by the same respondent as for cultivated land. For grassland and pastureland, the respondent should be the household member concerned with managing the household’s livestock or, if different, the one responsible for managing the land on the household’s farm dedicated to livestock grazing. In all cases, the respondent may be assisted by other household members knowledgeable about these details.

#### Question by Question

**s03C\_q01. You said that you used [INPUT TYPE] on your crops, what was the total quantity of [INPUT TYPE] used on your crops during the [REFERENCE AGRICULTURAL SEASON]?** For cultivated land, only inputs reported in Sections 1A, 1V, and 2A are listed here ONLY ONCE. This includes all organic fertilizers recorded in questions \*\_q02, inorganic fertilizers in questions \*\_q03, and pesticides in questions \*\_q04. EXCLUDE ANY AMOUNT APPLIED ON KITCHEN GARDENS/BACKYARDS {NOTE: In Survey Solutions and most other CAPI programs, the input list will be automatically pre-populated.} Remind the respondent that you are asking about the amount used across ALL PLOTS.

**s03C\_q02. Approximately what percentage of the total [INPUT TYPE] used was applied to... (TEMPORARY CROPS and PERMANENT CROPS)** EXCLUDE ANY AMOUNT APPLIED ON KITCHEN GARDENS AND BACKYARDS. Note that crops reported in 1V are considered temporary.

**s03C\_q03. (In addition to the fertilizers and pesticides used on your crops,) did you use any INORGANIC FERTILIZERS, ORGANIC FERTILIZERS AND/OR PESTICIDES on your temporary fallow plots in the [REFERENCE AGRICULTURAL SEASON]?** This question is only asked if the household reported any land as being temporarily fallow during the PP interview. It is asked in general for the three broad categories of inorganic fertilizers, organic fertilizers and pesticides, regardless of the specific type. Information on the specific type used by category will be collected in the next question (s03C\_q03a) only for the reported categories.

**s03C\_q05. (In addition to the fertilizers and pesticides used on your crops,) did you use any [INPUT TYPE] on your meadows/pastures during [REFERENCE AGRICULTURAL SEASON]?** This question is only asked if the household reported any land as having meadows/pastures during the PP interview. Likes03C\_q03 above, it is asked in general for the three broad categories of inorganic fertilizers, organic fertilizers and pesticides, regardless of the specific type. Information on the specific type used by category will be collected in the next question (s03C\_q05a) only for the reported categories.

**s03C\_q07. Did the household purchase any of the [INPUT TYPE] used during the [REFERENCE AGRICULTURAL SEASON]?** {FOR CAPI: The INPUT TYPES to ask about will be preloaded based previous question responses. FOR PAPI: Ask this question ONLY for the INPUT TYPES reported in s03C\_q01, s03C\_q03a, and s03C\_q05a.} Record YES if any of the INPUT TYPE used on crops, fallow land and meadows/pastures was purchased.

**s03C\_q08 – s03C\_q12** also refer to the TOTAL AMOUNT of the INPUT TYPE used across all crops, fallow land, and meadows/pastures.

**s03C\_q12. Approximately, what percentage out of the TOTAL [INPUT TYPE] used was received for free?** Here, “received for free” refers to any amount received by the household from non-household members, for which they did not provide anything in return (did not pay or barter for). DO NOT COUNT organic fertilizers produced by the household as “received for free.”

## Section 3D. Input Details

These questions gather additional information on the use of inorganic fertilizers and pesticides, including the household’s awareness of environmental risks and potential measures adopted to mitigate the risks associated with their use.

#### Respondent & Level of Reporting

This section collects information at the household level. The respondent should be the same as that for the previous section.

#### Question by Question

**s03D\_q01. You indicated that no fertilizers were applied at all on this household’s farm, why were fertilizers not applied at all during the [REFERENCE AGRICULTURAL YEAR]?** Code the response that best fits the respondent’s answer. DO NOT read the options aloud (as doing so could bias the response).

**s03D\_q02. You indicated that inorganic (chemical) fertilizers were applied on this household’s farm, are you aware of the environmental risks associated with the excessive use or misuse of chemical fertilizers?** This question is asking about the respondent’s knowledge. DO NOT provide examples or further explanation, as doing so can influence the responses provided. *This guidance also applies to* ***s03D\_q06.***

**s03D\_q04. What, if any, of the following measures did this household take to mitigate the environmental risks associated with the use of chemical fertilizers in the [REFERENCE AGRICULTURAL YEAR]?** Ifthe respondent is unclear as to what is meant by any measure, use the following details to explain the measures in terms the respondent understands.

* **Code 1. Follow protocols as per extension service or retail outlet recommendations or local regulations:** These are country- or region-specific protocols released by official bodies or retailers and that provide information on doses to apply and application modalities.
* **Code 2. Use organic sources of nutrients:** Organic nutrient sources are manures, bulky organic manures or organic fertilizers. DO NOT include mineral fertilizers.
* **Code 3. Use legumes as a cover crop or component:** Commonly used legumes include winter annuals, such as crimson clover, hairy vetch, field peas, subterranean clover and many others; Perennials like red clover, white clover and some medics; Biennials such as sweet clover.
* **Code 6. Use soil sampling at least every 5 years:** It involves measuring soil properties correctly through standard laboratory techniques and precise sampling methods. Soil tests are used to assess fertility and is analysis of a soil sample to determine nutrient content, composition, and other characteristics such as the acidity or pH level.
* **Code 7. Perform Site-specific nutrient management or precision farming:** technologies that provide guidance to farmers on the distribution of nutrient requirements across plots, that allows for more efficient fertilizer use.
* **Code 8. Use buffer strips along water courses:** A buffer strip is an area of land maintained in permanent vegetation that helps to control soil and water quality and has other environmental benefits.

**s03D\_q05. You indicated that pesticides were applied on this household’s farm, which type(s) of pesticide was(were) applied on the household’s farm in the [REFERENCE AGRICULTURAL YEAR]?** Pesticides come in different types of containers (boxes, bottles, tanks, etc.) that generally report on labels the product’s level of toxicity which is indicated by the following colors:

* **Red label** >> Extremely toxic;
* **Yellow label** >> Highly toxic;
* **Blue labe**l >> Moderately toxic;
* **Green label** >> Slightly toxic.

Choose all that apply, in case more than one pesticide was used and these have different toxicity levels. If the respondent struggles answering this question, you can ask him/her to show the container of the pesticides that were applied on the farm. If these are not in his/her possession anymore or the contained does not report the information, code 777 ‘Do not Know’.

**s03D\_q06. You indicated that pesticides were applied on this household’s farm, are you aware of the environmental and health risks associated with the use of pesticides?** See instructions above for s03D\_q02.

**s03D\_q08. What, if any, of the following measures did this household adopt to protect people from health-related risks in the [REFERENCE AGRICULTURAL YEAR]?** Most of the measures listed are self-explanatory. Use the following details to explain some of the more technical concepts to the respondent:

* **Code 3. Safe disposal of waste (cartons, bottles and bags):** involves proper cleaning and rinsing of the empty containers and disposing according to label instructions or at designated collection centers.

**s03D\_q10. What, if any, of the following measures did this household adopt in relation to pest control in the [REFERENCE AGRICULTURAL YEAR]?** Like s03D\_q08 above, most of the measures listed are self-explanatory. Use the following details to explain some of the more technical concepts to the respondent:

* **Code 7. Perform biological pest control:** itincludes alternative methods to pest control that do not involve the use of conventional chemicals but, for example, rely on augmentative releases of natural enemies such as invertebrates or other beneficial insects like parasites. These can include methods such as sexual traps (or pheromone traps) that exploits the natural mating behavior of insects to lure pests into a trap and kill the insects.
* **Code 8. Use of biopesticides:** these are non-chemicals products with active substances that are based on microorganisms/microbials (e.g., fungus, bacterium, virus), botanicals (e.g., plant extracts) and semiochemicals (e.g., pheromones).

**s03D\_q11 – s03D\_q13.** For each question, select only one answer. This should correspond to the main criteria used for determining the specific action.

**s03D\_q14. Did this household use natural pests against diseases or for weed control during the [REFERENCE AGRICULTURAL YEAR]?** This refers to measures where the farmer would maintain a level of biodiversity on/around the parcel (e.g., do not cut the hedgerows, trees, grass strips around the field, no tillage practice, etc.) to avoid the disease spreading too much or make sure that predators are there for natural pests. Specifically, natural pests include other insects, birds, animals, plants or plant-derived extracts to combat diseases or control weeding (in contrast to more conventional chemical pesticides or herbicides).

## Section 4A. Livestock in Stock

Sections 4A-4K 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 specific 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.

#### Respondent & Level of Reporting

After the initial 4 questions, 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 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

**s04A\_q01. Did the household keep any livestock under certified organic farming or under conversion to organic certification in the past 12 months?** This and the following questions (until s04A\_q05) are asked at the household level and refer to any/all livestock kept during the past 12 months.

{Provide definitions of certified organic livestock according to the regulations and practices of the specific country. The following text is a general definition from the SDG 2.4.1 interviewer manual}. In general, certified organic farming practices means that the farm is producing agricultural products which have been produced, stored, processed, handled and marketed in accordance with specific technical specifications (standards) and have been certified as “organic” by a certification body.

**s04A\_q02. Is the Organic Registration number and certifying body the same as for the certified crops?** This question is only asked if the household also reported having certified crops during the PME Post Planting interview (Section 3, question q01).

**s04A\_q03. Report the name of the certifying body.** In cases where the household keeps any livestock under certified organic farming or is undergoing a certification process and the livestock is certified by different bodies, select all that apply.

**s04A\_q05. Does the household plan to obtain organic certification for at least one livestock production cycle in the next 2-3 years?** This question is asked regardless of whether the household has any livestock under certified organic farming or under conversion to organic certification during the reference period.

**s04A\_q06. In the past 12 months, did this household keep any [LIVESTOCK NAME], irrespective of who owns [LIVESTOCK NAME] that you keep?** 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).

**s04A\_q07. How many [LIVESTOCK NAME] does this household currently keep?** Record 0 if the household does not CURRENTLY keep LIVESTOCK NAME but did so at any point in the PAST 12 MONTHS. Note that for some animal groups (ex: large ruminants) separate numbers are recorded for male, female, and young animals.

**s04A\_q09. Who in your household decides 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 the earnings will be spent.

**s04A\_q10. Were any of the [LIVESTOCK TYPE] kept by this household in the past 12 months certified organic?** This is the same as the first question in this module (s04A\_q01). Whereas s04A\_q01 asks broadly about all livestock, s04A\_q10 asks about each LIVESTOCK TYPE (large ruminants, small ruminants, poultry, etc.) separately. Note that the follow-up question regarding the specific number of organic animals is asked at the level of LIVESTOCK NAME (ox, cow, calves, etc.), as is the case for all other questions in this module. **s04A\_q12**,which is the same as s04A\_q02 follows the same protocols.

## Section 4B. Change in Stock – Large and Medium-Sized Animals

This section collects detailed information on the change in number of animals in 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

This section is also collected at the livestock-name (type of animal) level, for all LIVESTOCK NAME reported in Section 4A, q01 (except types of poultry, which are in the next section). This module is to be administered to the 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:

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

and: AMOUNT KEPT 12 MONTHS AGO + CHANG IN STOCK = AMOUNT CURRENTLY KEPT

Note that this will not necessarily be equal to the number they have currently (s4A\_q07), 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 and owns 4 cows (s4A\_q07=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.

**s04B\_q01. How many [LIVESTOCK NAME] did the household keep exactly 12 months ago?** This and the following questions MUST be asked for every LIVESTOCK NAME that the household reported keeping in Section 4A, q06.

**s04B\_q02. How many [LIVESTOCK NAME] were born in the past 12 months?** 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.

**s04B\_q03b, c, d. Value of the [LIVESTOCK NAME] purchased alive 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 s04B\_q03a(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.

**s04B\_q04. How many [LIVESTOCK NAME] did this household receive for free or as 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.

**s04B\_q05b, c, d. Revenue of the [LIVESTOCK NAME] sold in the past 12 months.** Note thatthisincludes sale of LIVE ANIMALS ONLY. (Animals slaughtered and sold for meat are recorded at s04B\_q09) To aid respondent memory recall, similar to s04B\_q03 above, give him/her the option of reporting the revenue of purchased livestock in either TOTAL VALUE or UNIT PRICE.

**S04B\_q6a,b,c Deaths of [LIVESTOCK NAME].** Question 6 asks about the number of animals that died due to diseases, while question 6a asks for number of animals that died due to other causes. Question 6b lists these possible other causes (drought, flood, old age, etc.). The respondent shall report the main two causes for each animal in the list. In question 6c, the respondent is asked to count the total number of animals that died due to each of the main two causes previously reported in 6b.

**s04B\_q08. How many [LIVESTOCK NAME] were given away for free or as gifts in the past 12 months?** Report 0 if no [LIVESTOCK NAME] was given away.

**04b\_q11-13.** Q11 and Q13a ask for percentages of the slaughtered animals used for different purposes. The sum of the values reported across Q11 (for household consumptions) and Q13a (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 Q11 and Q13a to be LESS THAN 100%, as there are other uses/losses possible.

Make sure that this percentage is from the number of the {LIVESTOCK NAME] slaughtered reported in Q9 For example, if a household slaughters two sheep and consumes half of the meat from these two sheep slaughtered then Q112 should be 50 percent. On the other hand, if the household consumes a quarter of the meat, then Q13ashould be 25 percent. The same applies for Q25.

## Section 4C. Change in Stock – Poultry

This section collects detailed information on the change in number of poultry in 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 livestock NAME level, for all poultry reported in Section 4A, q01. This module is to be administered to the 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 4D. 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-name level, for all animals that are able to produce milk and are reported as YES in Section 4A, q01. This module is to be administered to the 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

**s04g\_q01. 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.

**s04g\_q02. For how many months on average were [LIVESTOCK TYPE] milked in the past 12 months?** The average lactation period is provided in number of months

**s04D\_q03. During these months in which [LIVESTOCK NAME] were milked, how many animals were milked on average per 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 accurate response is 9.

**s04g\_q04. During these months in which [LIVESTOCK NAME] were milked, what was 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.

**s04D\_q05, s04D\_q07a, & s04D\_q08.** Note that while these questions are referring to the months in which the animals were milked, they are asking for average quantities PER WEEK.

**s04D\_q06. During these months in which animals were milked, did this household sell the milk of [LIVESTOCK NAME]?** Refers to both sales in cash and in-kind.

## Section 4E. 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, q06. This module is to be administered to the 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

**s04E\_q01. Has any [LIVESTOCK TYPE] in household produced any eggs in the past 12 months?** Recommended to remind the respondent 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.

**s04E\_q02. How many clutching periods did [LIVESTOCK TYPE] have on average in the last 12 months?** Clutching periods are sometimes between 2-3 weeks but this can vary considerably depending on various factors, including the breed, age, and environmental conditions. For some breeds (e.g., non-commercial or heritage breeds) birds may take longer breaks between clutching periods and egg production can be seasonal. Note that the question asks about average number of clutching periods in the last 12 months. 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). This is just an illustrative example since, as already said, clutching periods per year can be much less (e.g., 3-4 per year). Clutching periods generally apply to local or traditional breeds, but not to improved breeds.

**s04E\_q03.How many eggs per clutching did [LIVESTOCK TYPE] lay on average?** This should be the number of eggs each [POULTRY] lays per clutching. So, for example, if the household had 10 hens laying eggs and each of their clutches had about 10 eggs, then record 10.

**s04E\_q04. How many [POULTRY] had their clutching period in the past 3 months?** Count all birds that had one or more clutching period(s) during the past 3 MONTHS.

**s04E\_q05. How many of the [POULTRY] eggs laid in the last clutching period were consumed by the household 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.

**S04E\_q07a,b,c,d. Sale of eggs in the last 3 months**. Respondent shall include both sales in cash and in-kind**.**

## Section 4F. Other Livestock Products

This section 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 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

**s04F\_q01. Did this household produce any [PRODUCTS TYPE] in the past 12 months?** 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).

**s04F\_q02 – s04F\_q09.** If the household produced this item from more than one animal (ex: cheese from both sheep and cows), report the combined total amount here.

## Section 4G. Livestock Breeding & Health

BREEDING: This section allows for a broader perspective of households’ major husbandry practices. For the short module, priority is given to questions on expenditures, since those are necessary to compute income net of costs. The questions on husbandry practices help obtain a better picture of what the prevailing practices and their distribution may be, but they are not necessary if the aim is simply to generate a measure of income from livestock.

#### Respondent & Level of Reporting

This section is collected at the livestock GROUP level for all livestock that the household reported keeping (Section 4A, q06). It is to be administered to the household member concerned with managing the household’s livestock; that person may be assisted by other household members knowledgeable about these details.

#### Question by Question

**s04G\_q01. Did this household use any controlled animal reproduction techniques for [LIVESTOCK GROUP] in the past 12 months?** Controlled animal reproduction or breeding consists in the manipulation of reproductive processes of household’s farm animals to suit management objectives. It is primarily aimed to improve the animal physiological and genetic traits like body weight, milk production, and resistance to diseases.

**s04G\_q02. Which animal reproduction technique(s) was(were) used for [LIVESTOCK GROUP] in the past 12 months?** Select all the methods and techniques that were used for the livestock group. See below for more information on the various methods:

* **Natural mating with sire selected within the herd** is natural mating with a sire from the farm
* **Natural mating with sire purchased or rented** when the sire is acquired as a service whatever is the service provider
* **Natural mating with sire exchanged** when the sire is coming from another farm as an exchange whatever the exchange terms
* **Artificial insemination** methods are practiced by a professional (veterinary, breeding center, etc.)
* **Dam was purchased pregnant**
* **Dam was exchanged pregnant**

**s04G\_q11. What types of antibiotics were used on [LIVESTOCK GROUP] in the past 12 months?**

* **Antibiotic Type I** {country-specific, list and definitions to be determined by adopting countries}
* **Antibiotic Type II** {country-specific, list and definitions to be determined by adopting countries}

**s04G\_q12. Was [LIVESTOCK GROUP] treated with traditional medicine (e.g., …) in the past 12 months?** Traditional medicine is based on indigenous knowledge, skills and practices used for curative and preventive treatment of illness, reproduction, and other objectives. It includes natural remedies such as herbal remedies and treatments like acupuncture and homeopathy.

**s04G\_q15. Wha types of hormones were used on [LIVESTOCK GROUP] in the past 12 months?**

* **Hormone Type I** {country-specific, list and definitions to be determined by adopting countries}
* **Hormone Type II** {country-specific, list and definitions to be determined by adopting countries}

## Section 4H. Livestock Housing

This section is designed to assess how livestock are housed, if at all.

#### Respondent & Level of Reporting

This section is collected at the livestock GROUP level for all livestock that the household reported keeping (Section 4A, q06). It is to be administered to the household member concerned with managing the household’s livestock; that person may be assisted by other household members knowledgeable about these details.

#### Question by Question

**s04H\_q01 – s04H\_q04.** **What was the main type of animal housing system that was used for [LIVESTOCK GROUP] in the past 12 months?** Each question has a different set of response options, based on the LIVESTOCK GROUP it refers to. Code 1 ‘Open/no housing’ isapplicable for all animal types and refer to when the animals are always outside. Refer to the below definitions to identify the proper housing structure.

* **Stanchion-tied stable, with solid dung or liquid manure/slurry:** are animal houses where the animals are tied to their places and are not allowed to move freely. They can contain manure in the form of solid dung and liquid manure or in the form of slurry when the floors of the stalls are level concrete with a channel covered by a grid at the rear of the animals or fully slated floor to collect feces and urine as slurry.
* **Loose housing, with solid dung or liquid manure/slurry:** are animal houses where the animals are allowed to move freely and have free access over the whole area of the building or pen (a small enclosure for livestock). Cubicle house are also included here. Cubicle housings are buildings divided into rows of individual stalls or cubicles in which animals lay when at rest but are not restrained. Loose housing may contain manure in the form of solid dung and liquid manure or in the form of slurry when the manure and urine drop down below the floor into a pit.
* **On partially or completely slatted floors:** areanimal houses with floors can be partially slatted (part of the floor has slats where the manure and urine drop down below the floor into a pit, where they form slurry) or completely slatted (the floor has slats where the manure and urine drop down below the floor into a pit, where they form slurry).
* **On straw-beds (deep litter loose housing):** are animal houses where the floor is covered with a thick layer of litter (straw, peat, sawdust, or other similar material binding the manure and urine) that is removed only at intervals that may be several months apart.
* **Battery cage with manure belt:** battery cages where the manure is removed mechanically by a belt below the cages to outside the building to form solid dung/farmyard manure.
* **Battery cage with deep pit:** battery cages where the manure falls into a deep pit beneath cages where it forms slurry. The birds are housed in cages in one or more tiers.
* **Battery cage with stilt house:** battery cages where the manure falls on the floor below the cages where it forms solid dung/farmyard manure and is mechanically removed regularly.
* **Traditional barns or buildings:** (for small ruminants) agricultural buildings usually located on farms and used for various purposes.
* **Shelter:** (for small ruminants)generally a very simple house made out of wood.

**s04H\_q07. Were there filters on vents and/or vent fans to control dust emissions in the main building/structure used to house [LIVESTOCK GROUP] in the past 12 months?** Asked only for pigs and poultry.

**s04H\_q08. Were there temperature controls in the main building/structure used to house [LIVESTOCK GROUP] in the past 12 months?** This refers to any manual or programmed systems for moderating the temperature of the building/structure, including space heaters, air conditioning systems, etc. Even if the system does not track the exact temperature, record YES if it is a means of increasing or decreasing the temperature.

## Section 4I. Livestock Feed & Water

This section is designed to assess the watering and feeding practices undertaken by the household in relation to raising livestock. It assesses how frequently livestock are watered and by whom, the source of any such water provided and if this water was purchased or not, who in the household is primarily in charge of feeding livestock, the main feeding practices undertaken, the major sources of feed, whether feeds have been purchased and at what costs.

#### Respondent & Level of Reporting

This section collects data at several different levels: at the livestock GROUP level (for all livestock that the household reported keeping), the household level, the feed type level, and the crop/forage type. Take care during the interview to ensure that you are asking at the correct level – and that the interviewer is clear about this. Administer this section to the household member concerned with managing the household’s livestock; that person may be assisted by other household members knowledgeable about these details.

#### Question by Question

**s04I\_q02, s04I\_q04, s04I\_q06. Water sources.** If the LIVESTOCK GROUP relied on multiple sources of water, select the one that was MOSTLY used during each reference period (12 months, dry season, wet season).

**Borehole:** hole or shaft drilled by machine (to obtain groundwater), usually small in diameter.

**Well:** similar shaft or hole but dug by hand and usually larger in diameter.

**Dam or Lake:** both provide a consistent source of water that is slow moving or not moving.

**River, Spring, or Stream:** natural moving water sources of varying sizes. A spring is typically near the point of origin from the ground.

**Rainwater harvesting:** using catchment systems that fill up with rain.

**Other, specify:** include here any other water sources, including constructed systems that allow access to water (e.g. diversions in a stream path, aqueducts, etc.).

**s04I\_q08 – s04I\_q14.** These questions are asked at the household level for all types of livestock.

**s04I\_q10. What was the main problem encountered?**

* **Code 1. Restricted access to water sources:** access to water sources is not free but regulated (by community or other entities) according to certain rules or requirements (ex: payment of an access fee).
* **Code 2. Lack of water in usual water sources:** This code applies when the usual water source runs dry or is insufficient.
* **Code 3. Poor quality of usual water source:** Can be cited as the problem even if the livestock continue to use this source.

**s04I\_q17a,b,c,d. Approximately, what proportion of the (herd of) [LIVESTOCK GROUP] was fed using …**

* **(s04I\_q17a) only grazing, including scavenging?** Animals are fed only by pasture grazing and scavenging around crop parcels.Note that if grazing was done but together with feeding, this should not be reported here but in s04I\_q17c or s04I\_q17d below.
* **(s04I\_q17b) only feeding (zero grazing or scavenging)?** Animals are fed with feed bought or made on the farm from crops, and there is no pasture grazing or scavenging around crop parcels.Note that if feeding was done but together with grazing, this should not be reported here but in s04I\_q17c or s04I\_q17d below.
* **(s04I\_q17c) mainly grazing with some feeding?** Animals are fed mainly by pasture grazing and scavenging around crop parcels; some complementary feed is delivered.
* **(s04I\_q17d) mainly feeding, with some grazing?** Animals are fed mainly with feed bought or made on the farm from crops, and there is also some pasture grazing and scavenging around crop parcels.

Ask the respondent to estimate a percentage for each FEEDING PRACTICE reported in s04I\_q17a,b,c,d. Since the questions are asked at the livestock group level, it is possible that more than one practice was used for the same group. However, the sum of the shares should add up to 100%.

**s04I\_q18. What type(s) of feed did the household give to the [LIVESTOCK GROUP] in the past 12 months?** Include here any of the listed feed types. They can be sourced from the farm, collected from neighbors or common pastures, exchanged, purchased, gifted, etc. Select all that apply based on the list provided:

* Feed crops/forage include crops or trees that are planted specifically to provide feed for animals (feed or fodder crops/trees) and plants or parts of plants that are normally eaten by livestock (forage). Feed crops can include grain (corn, wheat, barley, oat, rye, sorghum, etc.), beans (including soybeans), oilseeds. Forage includes fresh grass or grass-legume mixtures, grazed or cut and distributed, silage of grass or grass-legume mixtures, hay (dry grass or grass-legume mixtures), whole plant silage (maize, wheat, barley, oats, rye, etc.).
* Tree leaves (or foliage) include leaves from trees and shrubs (and even cactuses in some areas). Animals can browse directly on trees/shrubs in the farm, or the branches can be cut and taken to the animals to eat.
* Crop residues include crop straws, stover, hulls, sugarcane tops, etc.
* Agro-industrial by-products are for example oilseeds cakes, molasses, cereals brans and middling, fishmeal, etc.
* Concentrates is a feed often used with another to improve the nutritive balance of the total and intended to be further diluted and mixed to produce a supplement or a complete feed. Concentrates can be with or without supplements.
* Swill & farm/household waste is organic residues (including from raw, cooked or processed food) used as feed.

**s04I\_q19. Approximately, what proportion of the feed for the (herd of) [LIVESTOCK GROUP] was [FEED TYPE]?** This question is asked for each FEED TYPE reported in s04I\_q18. The sum of the shares should add up to 100%.

**s04I\_q21. Were supplements and/or additives used to feed [LIVESTOCK GROUP] in the past 12 months?** Feed additives are substances which are added in trace amounts to a diet or feed ingredient for different purposes such as to preserve its nutritional characteristics prior to feeding (antioxidants and mold inhibitors), to facilitate ingredient dispersion or feed pelleting (emulsifiers, stabilizers and binders) to facilitate growth (growth promotants, including antibiotics and hormones), to facilitate feed ingestion and consumer acceptance of the product (feeding stimulants and food colorants), or to supply essential nutrients in purified form (vitamins, minerals, amino acids).

**s04I\_q23 & 24. For how many months, on average, did [LIVESTOCK GROUP] animals practice [GRAZING TYPE] in the past 12 months?** The number of months refers to the length of time that the animals spent outside grazing during the past 12 months. This is regardless of whether the animals were also grazing during the night or spent the night indoors. The number of months must be computed as overall average. For example, if animals grazed 1 week per month each month, this means a total of 12 weeks, which corresponds to 3 months of grazing (12 weeks/4 weeks in a month).

**s04I\_q25. What were the sources of [FEED TYPE] used to feed livestock in the past 12 months?** This and the following questions ask about FEED TYPES reported across all of the farm’s animal groups. If, for example, the farm used crop residues to feed their cattle, sheep, and horses, then the source of the crop residues fed to all those animals are reported here.

**s04I\_q26. Approximately, what proportion of [FEED TYPE] came from [FEED SOURCE]?** Confirm the amount in percentage of FEED TYPE that came from EACH SOURCE reported in the previous question.

**s04I\_q27. During which month(s) purchased [FEED TYPE] was used to feed livestock?** This applies only if the household purchased FEED TYPE. Indicate all months in which the purchased FEED TYPE was used by the household to feed the animals.

**s04I\_q28. How much [FEED CROP/FORAGE] was purchased to feed livestock in the past 12 months?** If the household purchased feed crops/fodder for their livestock, then ask this question for each type of FEED CROP/FORAGE they reported using.

**s04I\_q29a & s04I\_q29. Was any manure (free fall) collected from pasture to be used as fuel during the past 12 months? What percentage of the free fall manure was collected from the pastures to be used as fuel in the past 12 months?** This refers to all manure from all animals raised by the household, collected from any pasture the animals use, regardless of whether the land is under the care of the household community lands.

**s04I\_q30. Now I would like you to think about the community where this household conducts their farming activities, was there any (other) communal pasture land in the neighbourhood that was not used by the household for grazing livestock in the past 12 months?** The common pasture refers to land that does not belong directly to the household/farm, but with regard to which common rights apply. Generally, common pasture is agricultural area owned by a public authority (state, parish, etc.) over which another person is entitled to exercise common rights, rights that are generally exercisable in common with others. Pastures that are rented or over which the holder enjoys rights allotted by the parish or another organization – for example, common grazing land apportioned on an acreage basis – are not included here.

## Section 4J. Livestock Equipment & Transportation

This section collects information on transportation and movement of livestock as well as the use of livestock as means of transportation.

#### Respondent & Level of Reporting

This section collects data at the LIVESTOCK GROUP level (for all livestock that the household reported keeping). The reference period is the past 12 months for all groups except poultry, which is last 3 months. Administer this section to the household member concerned with managing the household’s livestock; that person may be assisted by other household members knowledgeable about these details.

#### Question by Question

**s04J\_q01. Were live [LIVESTOCK GROUP] transported from the farm to a slaughterhouse in the past 12(3) months?** This question is only asked if earlier in the interview the household reported sending any animals to slaughter. Note that the reference period is different for poultry. It is possible that some respondents, when asking about transport, may initially report no transport if they traveled by foot; probe as needed for clarity on this point. Record NO ONLY IF the LIVESTOCK GROUP was slaughtered on the farm.

**s04J\_q02, s04J\_q05, s04J\_q08, & s04J\_q11. Means of transport.** These questions ask about the means of transport used for each activity.

* **Code 1. By foot:** Select this code for all transport by foot, whether by a member of the household/farm or someone else.
* **Code 2. By road with motor vehicle:** Select this code for transport by road (paved or dirt), using ANY type of motor vehicle, without regard to who owns the motor vehicle (the farm, acquaintances, public transport, private paid transport, etc.).
* **Code 3. By rail vehicles:** this includes trains and any other transport that moves along rail tracks.
* **Code 4. Other, specify:** Before selecting this option, be sure the type reported does not fit into any of the above categories.

**s04J\_q03, s04J\_q06, s04J\_q09, & s04J\_q12. Frequency of transport types.** These questions ask about the frequency of transport for each activity. Examples of frequencies to be reported under “other, specify” include but are not limited to: TWICE A YEAR, QUARTERLY (once every 3 months), TWICE A MONTH, etc.

**s04J\_q04. Were live [LIVESTOCK GROUP] transported from the farm to a market to sell them in the past 12(3) months?** This question is only asked if earlier in the interview the household reported selling any animals. Note that the reference period is different for poultry. It is possible that some respondents, when asking about transport, may initially report no transport if they traveled by foot; probe as needed for clarity on this point. Record NO ONLY IF the LIVESTOCK GROUP was sold at the farm.

**s04J\_q07 & s04J\_q10. Transport to pastures and to other farms for feeding.** Note that these (and the remainder of this section) is not asked for poultry. It is possible that some respondents, when asking about transport, may initially report no transport if they traveled by foot; probe as needed for clarity on this point. Record NO ONLY IF the LIVESTOCK GROUP was not relocated for feeding.

**s04J\_q13. Was transhumance of [LIVESTOCK GROUP] practiced in the past 12 months?** Record YES if the LIVESTOCK GROUP was moved between FIXED SEASONAL LOCATIONS. This usually occurs from mountains to lowlands, or across plains and plateaus and it can be in-country or cross-border. Record NO if the farm practiced nomadic herding (irregular movement of herds to seek fresh pastures) of the LIVESTOCK GROUP.

**s04J\_q17. Were [LIVESTOCK GROUP] used for draft animal power on the farm in the past 12 months?** Record YES if the LIVESTOCK GROUP were used as help/animal power with any activities on the farm (except to transport goods or people).

## Section 4K. Manure Production & Management

This section collects information on the production and uses of manure on the farm over the past 12 months. For the purposes of this questionnaire, the following definitions are used:

* **Solid dung or manure** is animal feces used to fertilize land and crops, with or without litter such as straw, hay, or bedding and may include a small amount of urine. It is handled with front-end loaders and/or pitchforks.
* **Liquid manure** is urine from animals including possibly a small amount of excrement and/or water.
* **Slurry** is manure in liquid or semi-solid form. The difference between slurry and liquid manure is in their dry matter content. While the first is semi-solid, the second is more liquid and can be handled with normal irrigation equipment or using conventional centrifugal pumps. Slurry is also usually stored in a tank or lagoon before it is applied to farmland as fertilizer.

#### Respondent & Level of Reporting

This section collects data at the farm level, for each MANURE TYPE. Administer this section to the household member concerned with managing the household’s livestock; that person may be assisted by other household members knowledgeable about these details.

#### Question by Question

**s04K\_q01. Did this household produce any [MANURE TYPE] in the past 12 months?** Report YES if the farm prepared ANY of the dung from ANY of its animals for use as fertilizer. This can include fertilizer used by the farm or sold or given out to others.

**s04K\_q02. How much [MANURE TYPE] was produced in the past 12 months?** If a farm produced a MANURE TYPE from more than one type of animal, record their COMBINED TOTAL AMOUNT of that MANUER TYPE here.

**s04K\_q09. Which of the following manure management system did the householduse to manage [MANURE TYPE] in the past 12 months?** If no management system is applied to manure, record 0.For the purposes of this question, the following definitions are used:

* **Digester (biogas reactor)** are reactors in which animal excreta, with or without straw and/or other materials such as wood shavings, sawdust, etc., are collected and anaerobically digested in a large containment vessel or covered lagoon. A biogas reactor or anaerobic digester is an anaerobic treatment technology that produces a digested slurry (digestate), that can be used as a fertilizer, and biogas, that can be used for energy. Biogas is a mix of methane, carbon dioxide and other trace gases which can be converted to heat, electricity or light.
* **Slurry tank** are tanks, usually made of impermeable material, used for the storage of slurry. Watertight pits or cellars beneath or integrated into the livestock houses are also included. Note that this code will be automatically disable in CAPI if manure type is solid dung or liquid manure.
* **Anaerobic lagoon** (or manure lagoons) are man-made outdoor earthen basins filled with animal waste that undergoes anaerobic respiration as part of a system. Anaerobic lagoons are created from manure slurry, which is washed out from underneath the animal pens and then piped into the lagoon. Anaerobic lagoons are designed for varying lengths of storage, depending on the climate region, the volatile solids loading rate and other operating factors. The water from the lagoon may be recycled as flush water or used to irrigate and fertilize fields. Note that this code will be automatically disable in CAPI if manure type is slurry.
* **Aerobic lagoon** also known as aerated lagoons or aerated basins, are treatment ponds provided with artificial aeration to promote the biological oxidation of wastewaters. Note that this code will be automatically disable in CAPI if manure type is slurry.
* **Aerobic treatment** are biological manure treatment processes that occur in the presence of oxygen. In these processes, aerobic microorganisms oxidize bio-available organic and nitrogenous compounds. Note that this code will be automatically disable in CAPI if manure type is slurry.
* **Manure in pile** represents a basic manure management system where manure is simply kept on the land surface. Note that this system applies to solid manure only.
* **Manure in hole** is another basic manure management system where manure is kept in a hole or burrow. Note that this system applies to solid manure only.

**s04K\_q11. Did this household use any [MANURE TYPE] for fuel (including heating) in the past 12 months?** This refers to manure used for production of energy.

**s04K\_q13. Did this household use any [MANURE TYPE] for construction in the past 12 months?** Manure is used as a component for preparing construction materials

**s04K\_q15. Did this household use any [MANURE TYPE] for feed in the past 12 months?** Manure is used as a component for preparing feed.

**s04K\_q17. Did this household use any [MANURE TYPE] for fertilizer in the past 12 months?** This refers to manure used as fertilizer for lands and crops.

## 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 next section.

#### Respondent & Level of Reporting

The initial filter questions and last two questions are asked at the household level. The rest of the information 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

**s05A\_q01. Did you or any members of this household practice aquaculture in the last 12 months?** This is a filter question for the entire section. If the household did not practice aquaculture during the past twelve 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 have not. Ensure that only aquaculture, and not fishing production, 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.}

**s05A\_q02 During the past 12 months, did you or any member of this household cultivate [ITEM NAME]?** ThisMUST be asked for all listed items before moving on to collect further details on each item in the follow-up questions.

**s05A\_q04.How much of the [ITEM TYPE] collected in the past 12 months 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.

**s05A\_q06. How much of the [ITEM TYPE] cultivated in the past 12 months was sold?** If the item was processed and/or preserved (cooked, dried, filleted, etc.) before it was sold, ask the respondent to report the quantity of the unprocessed item when possible. If the product was preserved to be sold, but has not yet been sold, do not count it here. Include also in-kind sales.

**s05A\_q06b.** **How much did this household earn in total from the sales of [ITEM TYPE] in the past 12 months?** For production contracts that cover multiple years, be sure to ONLY INCLUDE the portion of sales that were done during THE PAST 12 MONTHS. If earnings were in-kind (from bartering), estimate the amount in {LOCAL CURRENCY UNIT}.

**s05A\_q07–s05A\_q10.** Note that these questions are asked at the farm level.

**s05A\_q07. Regarding the ponds/waters used for aquaculture in the past 12 months – were there ever any trees lining them that provided “forage” food for the fish or other aquaculture life?** This question asks about aquaforestry systems on the farm. In these systems trees line fishponds and tree leaves are used as forage for fish.

## 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 harvested 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.

#### Question by Question

**s06A\_q01. Did you or any member of this household catch any fish, crustaceans, or clams/mollusks in the last 12 months, for either own use or sale?** 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. 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 various ITEMS listed.}

**s06A\_q03. During the last 12 months, did you or any member of this household catch [ITEM NAME]?** s06A\_q03-s06A\_q10 are only asked to household that DO NOT keep fishing records. In such cases, s06A\_q03 MUST be asked for all listed ITEMS. Record 0 for any ITEM the household did not fish for during the last 12 months.

**s06A\_q05. During those months, how many days did you catch [ITEM NAME] on average?** This is asking for the average number of days PER MONTH, in only the months when ITEM was fished. For example: members of a household fished only during 2 months – 5 days in March and 19 days in April.

* For s06A\_q05, record 12, which is the average number of days fished *during the months fished.*
* DO NOT record 24 (total number of days fished) or 2 (average number of days fished per month over the whole year)

**s06A\_q06. On a typical fishing day, on average, how much [ITEM NAME] does your household collect?** This is asking ONLY for the average amount collected during one day of fishing. DO NOT record the total amount collected during the past month or over the past 12 months. The same time period (ONE TYPICAL DAY OF FISHING) applies to s06A\_q07-s06A\_q10as well.

**s06A\_q07. How much of the [ITEM NAME] 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.

**s06A\_q09.** **How much of the [ITEM NAME] was sold by this household on a typical fishing day?** For production contracts that cover multiple days, months, years, etc., be sure to ONLY INCLUDE the portion of sales from ONE DAY OF FISHING.

**s06A\_q11. What is the total quantity of [ITEM NAME] fished in the last 12 months?** Q10-Q15c 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.

**s06A\_q11 – s06A\_q15c.** The protocol is similar to above, with the difference being that for these questions 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*, that is forests, savannahs, grasslands, etc. As such, *forest product* includes any non-cultivated items collected or foraged from these areas. An important exception are captured aquatic resources, which are recorded in Section 6A Fishery production.

#### Respondent & Level of Reporting

After the initial filter questions, 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 fishing activities and other household members knowledgeable about these details can assist the primary respondent.

#### Question by Question

**s07A\_q01. During the past 12 months have you or any member of this 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 own use/consumption or sale/trade?** 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.

**s07A\_q04. During the last 12 months, how many months did your household collect [PRODUCT NAME]?** Even if [the farm? Household?] collected only one day in a month, count that month as a month of collection.

**s07A\_q06. On a typical day in which [PRODUCT NAME] was collected, how much [PRODUCT NAME] did your household collect?** Note that this question asks the respondent to estimate the amount collected on a TYPICAL day – this should be the amount *usually* collected on days collected, even if it was not the amount collected on the most recent foraging trip.

**s07A\_q11–s07A\_q19.** Note that these questions are asked at the household level.

**s07A\_q11. Over the last five years, has this household cleared any forest?** Ensure the respondent understands that the reference period here is different than in previous questions. Record YES if, at any time over the LAST 5 YEARS, the household has cleared ANY forest, regardless of method. This refers to ANY forested land, as is not limited to their own land.

**s07A\_q16 & s07A\_q16a.** These questions aim to understand if the creation of wooded land reported in previous question was purposely done with the objective to install agroforestry systems, where the latter refer to specific forestry practices that complement agricultural activities, such as by improving soil fertility, reducing soil erosion, improving watershed management, or providing shade and food for livestock.

## Section 8. Other On-Farm Activities

This section is to capture any other on-farm activities that the household’s farm engaged in to generate income, that do not fall under any of the sections and activities already reported in previous sections.

#### Respondent & Level of Reporting

This section collects data on each ACTIVITY. Administer this section to the household member most knowledgeable about these details.

#### Question by Question

**s08\_q01.** **During the last 12 months, did the household engage in [ACTIVTY TYPE]?** Ask this for all ACTIVITY TYPE first before moving on to follow-up questions for those activities reported as YES.

**s08\_q01a. Did the household earn any income from [ACTIVITY TYPE] during the past 12 months?** ONLY If the household earned any income (in cash or in kind) from the specific activity in the preceding 12 months, the remaining questions (s08\_q02 and s08\_q03) will be asked.

## Section 9. Labour

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 and 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}.
* Free/exchange workers include all NON-HOUSEHOLD MEMBERS who provided labor/helped the household with their farming and related activities without being paid. This includes non-household members that worked for FREE or that worked in exchange for help on their land.
* Hired workers include any person who work in exchange for any type of pay: money, food, or other in-kind payments.

**s09\_q01. Did [WORKER CATEGORY] work to grow and harvest crops for this household 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. A similar concept applies to s09\_q02 and s09\_q03.

**s09\_q04. How many [WORKER CATEGORY] worked on all these activities for this household in the past 12 months**? Report the total number of people (per category) that worked on all activities mentioned in s09\_q01, s09\_q02, and s09\_q03. For example, if the head of household worked on all 3 activities (farm, livestock, fishing/aquaculture) and was the ONLY female adult to work on each of the 3 activities, then for s09\_q04 record 1 (and not 3).

**s09\_q05. How many of these [WORKER CATEGORY] were general labourers performing simple and routine tasks on the household’s farm?** General labourers are unskilled workers that perform basic tasks for the farm. Generally, these tasks require the use of simple hand-held tools and considerable physical effort such as, for example, digging, shoveling, loading, unloading, stacking, raking, pitching, spreading manure or fertilizers, watering and weeding, picking fruit, vegetables and various plants, feeding animals, cleaning animal quarters and farm ground. Ask the respondent to count how many labourers of this type, out of the total laboureres reported in s09\_q04**,** worked on the farm in the last 12 months in each WORKER CATEGORY. Professional and skilled labourers like production managers, professional and technical production staff, machinery and equipment operators, accountants, clerical staff, mechanics, watchmen must be excluded from this group.

**s09\_q06. What was the total amount paid to [WORKER CATEGORY] in the past 12 months?** This should be the TOTAL amount (in local currency unit) that the household paid to each HIRED WORKER CATEGORY for working on ANY activity on the household’s farm (i.e. for crop, livestock, aquaculture). If workers were paid in kind, estimate the value of the in-kind payments.

**s09\_q07. What period of time does this payment cover?** Indicate the period for the total payment done to each HIRED WORKER CATEGORY as reported in previous question (ex: if the respondent indicated 300 LCU for 3 months of labor, enter 3 in QTY and select code 1 (month) in unit). Help the respondent to work out the payments in order to be able to record the information as required.

## Section 10. Access to Information

This section collects information on the types, modes and sources of agricultural information and advice that the household had access to over the past 12 months, allowing also to differentiate between digital and non-digital methods.

#### Respondent & Level of Reporting

This section collects data on the recipients, modes and providers of information and advice to the farm by TOPIC of information/advice. These topics include:

* **Weather:** when it will rain, when to plant or harvest based on coming rains, sea conditions, etc.
* **Crop harvest, management and processing:** when to harvest, plant health management, good farming practices, seed selection, input/equipment use and application, how to store produce safely, how to dry, etc.
* **Livestock rearing, production and processing:** livestock health and disease management, breeding, feeding, production and processing of livestock products such as meat, milk/dairy, eggs, wool, leather, etc. {to be asked if applicable}
* **Fishing/aquaculture production and processing:** equipment use, feeding, safe selection, handling and storing, how to dry, etc. {to be asked if applicable}
* **Agricultural markets and pricing:** availability of input/equipment, availability of buyers, market location, market prices, etc.

Administer this section to the household member most knowledgeable about these details.

#### Question by Question

**s10\_q02.**  **In the last 12 months/[REFERENCE AGRICULTURAL YEAR], did you or anyone in your household receive or obtain any information or advice on [TOPIC]?** Ask this for all topics before moving on to follow-up questions for those topics reported as YES. Explain to the respondent that the information or advice received can come from ALL sources and providers such as extension officers, internet sources, NGOs, farmers groups, cooperatives, private companies, agents or other individuals (other farmers, friends, neighbors, etc.) and that it can also be information that was retrieved by household members directly, such as through an internet search. It does not matter if the information was used or not used, or if the household had to pay for the information or not.

**s10\_q03. Who in the household received the information on [TOPIC] directly?** Refers to the members of the household roster. Indicate which household members received the information on the topic *directly*. “Directly” means that the information was shared to the specific person(s). For example, if an extension agent had a face-to-face visit with Paul only, here you would indicate Paul (even if Paul later told his wife Sarah what the agent said). However, if the extension agent had a face-to-face meeting with both Paul and Sarah together, here you would indicate both Paul and Sarah. For those that obtained information themselves, such as through an internet search or phone application, indicate the person(s) that retrieved the information directly.

**s10\_q04–s10\_q08. What type of information did your household receive on [TOPIC]?** These questions ask about what type of information was obtained for each TOPIC. Select all types of information that the household obtained.

**s10\_q11. What was the main mode your household received information on [TOPIC]?** Ask the respondent how they received information on each TOPIC.If it is through different modes, indicate the MAIN mode as the one through which the household received the most information on TOPIC.

* **In person interaction:** the information was received through face-to-face discussion.
* **Mobile phone:** it can be a smartphone or a feature phone, and irrespective of how the phone was used to receive the information (ex: phone call, SMS, whatsapp, internet search, etc.).
* **Radio**
* **Television**
* **Press or newspapers**

**s10\_q12. In this in person interaction where your household received information on [TOPIC], was the information provided by an individual using a mobile phone or another digital device (e.g., tablet, laptop, video, projector)?** This question is asked only if the main mode indicated in previous question is code 1 ‘in person interaction’. It refers to cases where the information on TOPIC was received during an in person visit and the person(s) sharing the information in that visit had a mobile phone, tablet, or other digital device (ex: laptop, video projector). Note that the individual did not necessarily need to use this device in your discussion, such as to show you information. If they were equipped with one of these devices, regardless of whether they used it in your discussions, indicate YES.

**s10\_q13. In addition to this main mode, did your household receive any information about [TOPIC] via a mobile phone or through an individual who provided the information using a mobile phone or another digital device (e.g., tablet, laptop, video, projector)?** This question aims to capture if the household used any digital-based mode to receive the information on TOPIC in cases where the digital-based mode was not the main mode (i.e. s10\_q11 is code 2 ‘mobile phone’ or s10\_q11 is code 2 ‘in person interaction’ & s10\_q12 is YES). If the answer if YES, probe to clarify whether this was VIA MOBILE PHONE or THROUGH A DIGITALLY EQUIPPED INDIVIDUAL.

**s10\_q14. How did your household use the mobile phone to receive the information on [TOPIC]?** If the information was received via mobile phone, details must be provided with respect to how the phone was used to receive the information on TOPIC. If it was in more than a way, select all of them in the response list:

* **Phone call**
* **SMS or text message**
* **WhatsApp**
* **Facebook**
* **Mobile application (app):** for example, weather app or other instant messaging apps like Viber, Telegram, etc. {add also country-specific examples of common mobile apps}
* **Internet search (Google, YouTube, etc.):** own search using mobile phone through internet browsers

**s10\_q15. Who was the main provider of the information on [TOPIC] to your household?** Ask the respondent who or what was the provider (source) of information about each TOPIC. If it is more than one provider, indicate the MAIN provider as the one that provided the most information on TOPIC to the household.

**s10\_q16. Did your household also receive information on [TOPIC] from the governmental extension services in the past 12 months?** Asked if main provider in s10\_q14 IS NOT code 3 **‘**government or extension service’.

**s10\_q17–s10\_q18.** These questions are asked at the farm level for all topics IF the household received any information on any topic from governmental extension services in the last 12 months.Record 0 if there was no visit received or made.

## Section 11. Waste Management

This section collects information on the types of waste the farm generated and their disposal methods.

#### Respondent & Level of Reporting

This section collects data at the farm level. Administer this section to the household member most knowledgeable about these details.

#### Question by Question

**s11\_q02. How did the household dispose of [WASTE IN Q1] during the past 12 months?** Ask for each TYPE OF WASTE generated by the farm, as reported in s11\_q01.If the respondent reports only one method, prompt by asking if there were any other methods used for waste that was not disposed of that way. The two main groups of treatment are waste taken away from the holding by a professional, and waste kept on the holding, which includes the following options:

* Treated by burning
* Treated by burying
* Other treatment
* No treatment applied.

**s11\_q03. How did the household dispose of its wastewater during the past 12 months?** For the purpose of the questionnaire, the following definition of wastewater is applied: wastewater is water that is of no further immediate value to the purpose for which it was used or in the pursuit of which it was produced because of its quality, quantity or time of occurrence. Cooling water is not considered to be wastewater. The following uses of wastewaterare identified (select all methods used):

* **Discharged to a constructed retention or holding pond**
* **Discharged to a septic or sewer system**: septic tanks are private solutions and sewers are shared solutions, whether communal or not.
* **Discharged into a vegetative filter strip or constructed wetland**: buffers and filter strips are areas of permanent vegetation located within and between agricultural fields and the water courses to which they drain. These buffers are intended to intercept and slow runoff, thereby providing benefits in terms of water quality. In addition, in many settings, they are intended to intercept shallow groundwater moving through the root zone below the buffer. A constructed wetland is an artificial wetland created for the purpose of treating municipal or industrial wastewater, grey water or storm water runoff.
* **Applied to agricultural land as fertilizer**
* **Included in the liquid manure system**
* **Not managed, removed through natural drainage**

For farms in the household sector, it may be difficult to distinguish the wastewater generated by the farm from the wastewater generated from the household. In this case, it may be easier to adjust the question to ask for all wastewater types.

## Section 12. GHG & Environmental Issues

This section collects information on environmental issues of the farm, including whether it is located in a protected area.

#### Respondent & Level of Reporting

This section collects data at the farm level. Administer this section to the household member most knowledgeable about the farm in general.

#### Question by Question

**s12\_q01. Were there any contaminated sites on the household’s farm in the past 12 months?** Sites become contaminated when harmful substances are released and spread into the soil and groundwater. These contaminants are generally caused by industrial activity, agricultural chemicals or improper disposal of waste and produce alteration in the natural soil environment.

**s12\_q02. Was the household involved in any organization(s) (cooperative, association, etc.) for environmental protection programs in the past 12 months?** Environmental protection includes programs and services that are aimed at reducing risks to the environment from contaminants such as hazardous materials and wastes.

**s12\_q05.** **Was the agricultural area utilized in the past 12 months by the household located partially or totally in an officially protected area?** Recode YES if ANY part of the area utilized by the household falls within a protected area. This can include locally- or nationally-protected areas, where the latter can be defined as an area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means.

## Section 13. Climate/Environmental Shocks & Adaptation Strategies

This section collects information on environmental and climate shocks. This refers to (usually unforeseen) events that affected the welfare of the household, almost always in a negative way.

#### Respondent & Level of Reporting

This section collects data on each SHOCK experience by the household in the last 12 months. Administer this section to the household member most knowledgeable about the household in general.

#### Question by Question

**s13\_q01.** **During the past 12 months, did this household put in place any of the following adaptation practices?** Review the list with the respondent and help explain any that they are unclear about:

* **Multicropping:** is the practice of growing two or more crops in the same piece of land during a single growing season. It is a type of polyculture that can take the form of double-cropping, in which a second crop is planted after the first has been harvested, or relay cropping, in which the second crop is started among the first crop before it has been harvested.
* **Shifting cultivation:** also known as slash-and-burn agriculture, this is the practice in which farmers clear land by slashing vegetation and burning forests and woodlands to create clear land for agricultural purposes.
* **Use of traditional agricultural heritage practices and knowledge**: these practices, having been used for many years, could have been abandoned for a certain period of time and restored at a later stage.
* **Use of traditional crop and animal varieties**: crop and livestock varieties that, having been used for many years, could have been abandoned for a certain period of time and restored at a later stage.
* **Use of seeds adapted to local conditions and stresses**.
* **Use of new practices or technologies:** changing practices or adopting new technologies, for example, to follow advice to attain a more sustainable agriculture.

**s13\_q02. Did the household experience [SHOCK TYPE] shock in the past 12 months?** Ask this for all shock types before moving on to follow-up questions for those shocks reported as YES.

**s13\_q04. Due to this(these) shock(s) that hit the household in the past 12 months, how many people in the household were...** Ensure the respondent is clear that this refers to ALL shocks reported, and not only to the last one confirmed.

**s13\_q05. How severe was the impact of [SHOCK TYPE] on the livelihood of this household?** This is a subjective question, aimed at understanding how severe the shock was OVERALL on the livelihood of the household. If the same shock occurred multiple times in the past 12 months, ask this question for the most severe occurrence of the shock.

**s13\_q06. Which of the following impacts did the household experience as a consequence of [SHOCK TYPE] occurrence?** Read the responses out and select all that apply.This question refers to ‘tangible’ impacts produced by the shock on household land, assets, and farm output.

**s13\_q07. How severe were these impacts?** This is a subjective question, aimed at understanding how severe the impacts reported in previous question (s13\_q06) were. If the household reports more than one impact in s13\_q06, ask OVERALL considering all impacts produced by the shock. If the same shock occurred multiple times in the past 12 months, ask this question for the most severe occurrence of the shock.

**s13\_q08. Which of the following economic impacts did the household experience as a consequence of [SHOCK TYPE] occurrence?** Read the responses out and select all that apply.This question refers to economic impacts produced by the shock in terms of loss of income, revenues, wages, and other earnings.

**s13\_q09. How severe were these economic impacts?** This is a subjective question, aimed at understanding how severe the economic impacts reported in previous question (s13\_q08) were. If the household reports more than one economic impact in s13\_q08, ask OVERALL considering all economic impacts produced by the shock. If the same shock occurred multiple times in the past 12 months, ask this question for the most severe occurrence of the shock.

**s13\_q10. During the past 12 months, did this household have access to any of the following mechanisms for protection against [SHOCK TYPE]?** Please confirm all that you had access to, even if you did not use them.

{Include Section 15 and Section 16 in this manual only if these are part of the PME-PH questionnaire that is, if countries choose not to implement also the Agricultural Income, Labor, and Productivity Questionnaire (ILP) instrument.

## Section 15. Profitability

This section inquires about the household farm profitability during the last three years.

#### Respondent & Level of Reporting

Data are collected at the household level. Administer this section to the household member most knowledgeable about household farming activities.

#### Question by Question

Ask the respondent to report how often the household’s farm was profitable in the last three years. Profitable means that the value of all farm production (including the estimate of value of production consumed by the household) was greater than total costs, fixed and variable.

## 

## Section 16. Food Insecurity Experience Scale

This section collects information regarding people’s access to adequate food during the last 12 months.

#### Respondent & Level of Reporting

This section collects data about the household as a whole. Administer this section to the household member most knowledgeable about household food consumption.

#### Question by Question

Because food insecurity is a socially and emotionally sensitive subject, interviewers must strive to be considerate and non-judgmental in order to elicit honest responses to all FIES questions. Avoid prompting respondents for answers. Clarify the meanings of some terms and concepts if asked by the respondent, but do not spontaneously interpret or rephrase them.

Though some of the questions may sound similar, it is important that ALL questions are asked to the respondent, that they are asked AS WRITTEN, and that the response or reaction (refused) is recorded.}

S**16\_q01.During the last 12 months, was there a time when you or others in your household worried about not having enough food to eat because of a lack of money or other resources?** This Yes/No question refers to a state of being worried, anxious, apprehensive, afraid or concerned that there

might not be enough food or that food will run out (because there is not enough money or other resources to get food). The worry or anxiety is due to circumstances affecting their ability to procure food, such as: loss of employment or other source of income, or other reasons for not having enough money; insufficient food production for own consumption; insufficient food available for hunting and gathering; disrupted social relationships; loss of customary benefits or food assistance; environmental or political crises. It is not necessary for the respondent to have actually experienced not having enough food or running out of food to answer yes to this question.

**s16\_q02.During the last 12 months, was there a time when you or others in your household were unable to eat healthy and nutritious food because of a lack of money or other resources?** This Yes/No question asks the respondent whether s/he was not able to get foods they considered healthy

or good for them, foods that make them healthy, or those that make a nutritious or balanced diet (because there was not enough money or other resources to get food).

**s16\_q03. During the last 12 months, was there a time when you or others in your household ate only a few kinds of foods because of a lack of money or other resources?** The Yes/No question asks if the respondent was forced to eat a limited variety of foods, the same foods, or just a few kinds of foods every day because there was not enough money or other resources to get food. The implication is that the diversity of foods consumed would likely increase if the household had better access to food.

**s16\_q05.During the last 12 months, was there a time when you or others in your household ate less than you thought you should because of a lack of money or other resources?** This Yes/No question inquires about eating less than what the respondent considered they should, even if

they did not skip a meal (because the household did not have money or other resources to get food). The answer depends on the respondent’s own opinion of how much they think they should be eating. This question refers to quantity of foods eaten and not the quality of the diet. This question does not refer to special diets to lose weight or for health or religious.

## 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

**s99\_q01. 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.

**s99\_q02. 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.

**s99\_q03. END TIME OF SURVEY.** Record the date, 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.