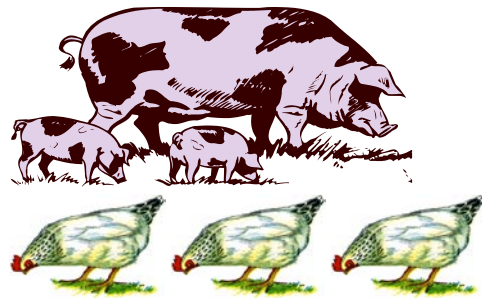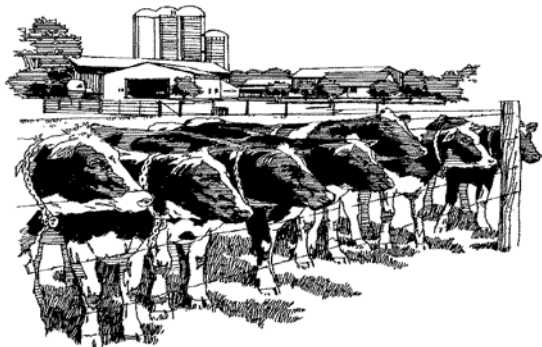# National Census of Agriculture in Cambodia

Enumerator's Manual

FOREWORD

The National Census of Agriculture in Cambodia (NCAC) 2013 is the first census of agriculture to be conducted in the Royal Government of Cambodia (RGC). In the past many years the country had conducted several Censuses of Population and Economic Censuses. There were also data produced from the Administrative Reports of the provincial offices of the Ministry of Agriculture, Forestry and Fisheries (MAFF). But the data provided from these censuses and administrative reports did not include any information on the basic structure of the agricultural holdings in the country. Hence, the RGC fully supports the conduct of the NCAC 2013 through the National Institute of Statistics (NIS) of the Ministry of Planning (MoP) in collaboration with the MAFF.

The NCAC 2013 is aimed to provide data on the current agricultural situation in the country for its policy and decision makers. In addition to this, the NCAC 2013 will provide sampling frame for conduct of the future agricultural sample surveys; data from national down to village level; and, data on the current composition and structure of the agricultural holdings in the country. This census of agriculture will be undertaken in two phases: core module from April 17, 2013 to May 31, 2013 and supplementary module from June 24, 2013 to July 23, 2013.

This enumerator's manual is prepared to guide all data collectors and census supervisors in undertaking the collection of data using the two forms for the core module phase and four forms for the supplementary module phase. A village questionnaire is to be distributed to all villages in all provinces to be filled up by the village leaders.

I encourage everyone involved in the NCAC 2013 to put all their efforts and enthusiasm in collecting accurate, reliable and timely information on agricultural activities being conducted in the agricultural holdings in the country. If we jointly give all our best support to this census, then our country will have sufficient data to enhance or formulate policies and programs for the development or improvement of the agricultural sector in the RGC.

CHHAY THAN
Senior Minister
Ministry of Planning

Ministry of Planning
Phnom Penh, Cambodia
January, 2013

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ACRONYMS USED

CMLHHC	Core Module Listing of Households and Holdings in Cambodia
EA	Enumeration Area
EN	Enumerator
Geo ID	Geographic Identification
ID Poor	Identification of Poor Households Programme
NCAC	National Census of Agriculture in Cambodia
NIS	National Institute of Statistics
MAFF	Ministry of Agriculture, Forestry and Fisheries
MOP	Ministry of Planning
RGC	Royal Government of Cambodia
RS	Random Start
SI	Sampling Interval
SMISAH	Supplementary Module Interview of Sample Agricultural Households
TS	Team Supervisor

CHAPTER 1
Basic Information on NCAC 2013

1.1 Introduction

The National Census of Agriculture in Cambodia (NCAC) is a comprehensive statistical undertaking geared towards the collection and compilation of information on crop cultivation, raising livestock/poultry and aquaculture operation. The data to be collected and generated from this census will be used in the formulation of plans, policies and programs for the development and improvement of the agriculture and fisheries sectors in the Royal Government of Cambodia (RGC).

This is the first census of agriculture to be conducted in the RGC. Hence, this is termed as NCAC 2013.

1.2 Objectives

The main objective of the NCAC 2013 is to provide data on the current agricultural situation in the country that will be utilized by the planners and policy-makers. Specifically, the census data will be useful in:

1. Providing sampling frame in the conduct of agricultural sample surveys;
2. Providing data at the smallest administrative unit in the country; and,
3. Providing data on the current structure of the agricultural holdings with growing of crops activity and/or raising livestock and/or poultry and aquaculture activities in the county.

1.3 Authority for the NCAC 2013

The National Institute of Statistics (NIS) of the Ministry of Planning and the Ministry of Agriculture, Forestry and Fisheries (MAFF) are the responsible government ministries authorized to undertake the NCAC 2013. The NIS has the census mandate while the MAFF is the primary user of the data to be produced from the census.

1.4 Confidentiality of Information

The Statistical Law of Cambodia signed on 19 July 2010 stated that the confidentiality of the data is regulated in Article 22 where it says that the statistical units shall ensure confidentiality of all individual information obtained from respondents of censuses/surveys, except under special circumstances with the endorsement of the Director General of NIS and the consent of the Minister of Planning.

Hence, any information that will be collected from individuals/households/holdings/ establishments in NCAC 2013 should be held STRICTLY CONFIDENTIAL and should not be divulged to any person except to the authorized NIS and MAFF personnel, acting in the performance of their duties.

1.5 Scope

The NCAC 2013 utilizes six questionnaires for the household sector; two of which will be used in the core module phase and the other four for the supplementary module phase. A

listing form to determine the household whether engaged in agriculture activity undertaken in an agriculture holding with size of at least 0.03 hectare is also included in the household sector. There will be separate questionnaires for the non-household sector agricultural holdings as well as non-household aquaculture operators. One questionnaire will be self-administered by the village leaders.

The scope of each questionnaire is presented as follows:

Form A – Listing Form

1. Geographic information
2. Information on the Involvement of Households in Agriculture and/or Aquaculture Activities

Form B – Basic Information on Agricultural Holding

1. Geographic information
2. Respondent and Agriculture holder information
3. Legal status of the agricultural holder
4. Basic characteristics of the agricultural holding such as size and number of parcels in the holding and location, actual area, main land use and land tenure of each parcel in the holding
5. Presence of forest and other wooded lands
6. Use of irrigation
7. Temporary crops planted
8. Permanent crops planted
9. Main purpose of production
10. Livestock/Poultry raised in the holding
11. Presence of aquaculture
12. Holder's Household Information

Form C – Growing of Crops

1. Geographic information
2. Respondent and Agriculture holder information as well as sub-holder information
3. Temporary crops planted and/or harvested including area planted, cropping duration, cropping pattern, area harvested
4. Permanent crops including area of compact plantation and number of productive permanent crops in scattered planting
5. Irrigation and other information regarding parcel
6. Agricultural Activities in the homelot
7. Agricultural practices
8. Implements, equipment and machineries used in the holding
9. Agricultural services
10. Membership in an organization and other relevant information

Form D – Raising of Livestock/Poultry

1. Geographic information
2. Respondent, agriculture holder and sub-holder information
3. Livestock/Poultry as of the time of enumeration
4. Inventory of livestock/poultry during the last 12 months
5. Equipment, machineries, buildings and agricultural extension

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Form E – Aquaculture Activity

1. Geographic information
2. Respondent, aquaculture operator and sub-operator information
3. Details of aquaculture activity including type of culture, location, actual area, production facility, type of water used, main specie cultured and equipment and machineries used.
4. Household involvement and hired labor
5. Other relevant information

Form F – Relevant Information on Agricultural Household

1. Geographic information
2. Respondent and agricultural holder information
3. Agricultural household population (total number, name, relation to head, sex, age, marital status, highest grade completed, currently attending school, physical/psychological/mental difficulty, primary and secondary economic activity, status of employment and tasks done in own agricultural holding in last 12 months)
4. Other farm labor (not household member)
5. Food security
6. Other economic activities such as catching of fish and aquatic products in marine/inland waters, forestry-related activities, etc.

Form G – Village Questionnaire

1. Type of soil
2. Main topographical feature
3. Prone to any calamity/disaster within previous five years
4. Economic activities available
5. Seasonal labor movement
6. Crop Duration
7. Agro-processing equipment/machines/facilities
8. Mode of transport
9. Available school
10. Communication facilities
11. Health facilities
12. Water facilities
13. Access to roads and presence of market
14. Presence of people's organization
15. Presence of NGO/INGO
16. Ethnicities/National Races
17. Religion

1.6 Coverage

The NCAC 2013 is to be undertaken in two phases: core module in which the listing of all households in all villages in the country will be undertaken in 45 days from 17 April 2013 to 31 May 2013; and, supplementary module phase, which is to be conducted in 24 June 2013 until 23 July 2013. The first phase will interview all households (using Form A) to determine their involvement in agricultural holdings; if involved and qualified (according to definition of agricultural holding), the households will be further interviewed using Form B. Then from Form A and Form B, 5% of the total households with agricultural holdings will be selected using systematic sampling in every village. These sample households with

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agricultural holdings will be interviewed during the supplementary module phase using appropriate forms (F and C and/or D and/or E).

Likewise in all villages, Form G will be self-administered by the village leader. All non-household sectors like corporations, cooperatives, government institutions and private institutions engaged and managed in agricultural holdings/aquaculture operations during the census reference period will be enumerated using another forms or questionnaires.

1.7 Reference Period

The NCAC 2013 will use the past twelve months prior to 01 April 2013 (from 01 April 2012 to 31 March 2013) as the reference period. However, to be more specific in getting the information, the reference period is indicated in each data item in each questionnaire.

CHAPTER 2
How to Interview

This chapter provides the procedures in interviewing the respondents, recording responses, and how to handle enumeration problems.

2.1 Who Should Be Interviewed

Take note that the interview should be done at the household level; that is, households to be listed and from the listed ones those that operated agricultural holding during the reference period. Interview any responsible and knowledgeable member of the household who can provide accurate answers to the questions and can give reliable information about the agricultural holding. The holder (if different from the head) or the household head or his/her spouse or any adult member (18 years old and over) will be the most qualified respondent.

2.2 How to Conduct an Interview

Obtaining accurate and complete information is the main aim of the NCAC 2013 data collection activity. You can attain this as an enumerator by being polite at all times and at the same time tactful enough to win the trust and confidence of the respondent. Establishing a good impression counts a lot to make your interview successful.

The following are the techniques or strategies to guide you during interview:

1. Dress appropriately and neatly to make a good impression. You might not be allowed to interview the respondent if you are messy or untidy.
2. Always be friendly and polite in approaching your respondent. Try to smile at all times and be prepared to answer all types of questions and give honest answers.
3. Wear always your name or ID card with census logo and NIS-MAFF name so that the respondent will know that the said office is conducting this census.
4. Introduce yourself properly and the office you are representing for this census.
5. Explain the importance and objectives of the NCAC 2013.
6. Ask all the questions in the questionnaire even if you think you already know the answer to it because what you think may not be the right answer.
7. Do not settle for an unsatisfactory answer especially if the respondent provides confusing or unclear information. PROBE for more information by asking the respondent to clarify his/her answer. If he/she cannot provide the answer, try to ask for an estimate. Give him/her time to think for the answer.
8. Check if all questions have been asked before closing the interview.
9. Thank the person for his/her cooperation in providing information to this census.
10. In case of doubts, refer back to this Enumerator's Manual for clarification especially if your team supervisor is not around.

2.3 How to Ask Questions

In asking the questions in the NCAC 2013 questionnaires, be guided by the following:

1. Ask all the questions as worded in each questionnaire. If the questionnaire is in topical format, translate it into a question in which the meaning will not be changed.

2. Ask all questions in the order shown in each questionnaire. Strictly follow "skip" or "go to" instructions because you may ask unnecessary or not applicable question(s) to the household.
3. Never ask leading question that may cause the respondent to believe that it is the right answer to the question.
4. DO NOT INTERRUPT the respondent while he/she is providing the answer or while he/she is asking for an explanation of the question.
5. Finish recording an answer before asking the next question.

2.4 How to Record Answers

The following are rules in recording answers to each questionnaire:

1. Fill up the questionnaire during the actual interview. DO NOT WRITE the answers on a separate piece of paper with the intention to transcribe the answers to the questionnaire at a later time.
2. Complete all the information to all questions to maintain data accuracy and consistency.
3. DO NOT MAKE any unnecessary marks or comments on the form. WRITE remarks or computations on the space provided.
4. Boxes and spaces provided in the questionnaire require handwritten responses. Make sure that each character/number is written properly inside the box/space and that answers are written legibly in the space provided.
5. If the instruction is to enter the code, be sure to enter the code correctly.
6. Use pencil in filling up the NCAC I questionnaires.
7. Write neatly and legibly.
8. When correcting an entry, be sure to erase carefully the first entry then enter or write the correct entry legibly.
9. Enter the appropriate code provided in some items in the sections of the questionnaires as in the case of the geographic IDs of the province/municipality, district, commune and village. Use the appropriate coding sheet that will be provided to you.
10. Write down additional explanation in the space provided for remarks for clarification of some answers.
11. Before going to the next household to be interviewed, check the completeness of the accomplished questionnaire for the previous household interviewed.

2.5 Other Tasks to Do After Completing/Accomplishing the Questionnaires

1. Review the completed/accomplished questionnaires for the day. Check if all data items in each section have been answered and filled up properly.
2. Check if all codes are entered correctly specifically on the crops planted and the geographic location of the holdings.
3. Check whether the screening question for specific data item is answered correctly and the skipping instruction is followed.
4. Submit the completed/accomplished questionnaires every week to your team supervisor for him or her to check any error/mistake committed so that this will be corrected at once and you can proceed to use the correct method.
5. Submit all remaining completed/accomplished questionnaires at the end of the enumeration period.

2.6 How to Handle Enumeration Problems

The following are some problems you may encounter during the census data collection:

1. No possible respondent or no responsible person to interview in the household to be enumerated or the entire members of the household to be enumerated is away.

   If during your first visit to the household there is no possible respondent or no responsible person to be interviewed or all members of the household to be enumerated are away, you must make a callback at your earliest opportunity. A **callback** is a revisit to a household to be enumerated whose respondent has not been interviewed by the enumerator during his/her previous visit. Any unsuccessful visit to such household in the same day as the previous visit will not be counted as callbacks.

   Inquire from the children or helper or neighbor of the household when is the best time to make callback, that is, the best time to find your respondent at home. Leave an appointment slip to any person in the household, indicating the time and date you will be back for an interview. Attach a piece of paper in the questionnaire(s) for the household to be enumerated with the same date and time for the next visit as a reminder for you.

   If after the third visit to the said household you are still unable to contact any responsible member despite issuance of appointment slip, refer this problem to your team supervisor who will then find a way to contact the household and set an interview date for you.

   If all members of the household are away, inquire from the neighbor about the date and time they will be back. If they will be back within the enumeration period, then leave an appointment slip with the neighbor, indicating the date and time you will interview the said household. Be sure to give some instructions regarding the purpose of your visit.

   If the household to be enumerated will be back after the enumeration period, enter in the space provided for remarks in the questionnaire: HOUSEHOLD WHOSE HEAD IS _____ IS AWAY AND WILL BE BACK ON _____ (state the date). Then refer this immediately to your team supervisor who will then report this matter to the census office in the district/province.

2. Household to be enumerated refuses to answer or provides under-estimated information

   If during your visit to the household to be enumerated, the head or any member refuses to answer or to provide information, try to find out the reason for he/she may be busy at the moment or he/she/the entire household has a problem. Then if this is the case, make an appointment to interview the said household in another day, at the time within the census enumeration period when the respondent will be ready to provide information.

   If any of the household members refuse to answer the NCAC 2013 questionnaires, even though there is no valid reason for doing such refusal; persuade them by explaining the importance of the census and that their responses will be held confidential. After all the efforts you have done and the said household is still refusing, refer this matter to your team supervisor who will solve such problem.

If the household to be enumerated provides the answers but you doubt the accuracy of these responses, try to PROBE by asking additional questions. But do not make any unnecessary comments that might offend the respondent.

3. Household to be enumerated cannot be located during the supplementary module phase

If the residence of the sample household to be enumerated that is included in your assigned area cannot be located even though its location has been plotted in the enumerator map, ask the help or assistance of the village head and/or other village officials for they may know any member of the said household. Use and provide the address or aliases given in the listing form (Form A) to the village head/officials. If they cannot help you, refer this matter to your team supervisor who will be the one responsible to solve such problem.

CHAPTER 3
Mapping, Canvassing and Enumeration

Mapping, canvassing and enumeration are the simultaneous activities that should be done during the NCAC 2013. Canvassing means exploring or investigating the assigned Enumeration Area (EA) before the actual enumeration takes place. Enumeration is composed of listing and interviewing the households to determine their involvement in agriculture. Mapping and canvassing activities are necessary to ensure complete coverage of listing of households in the rural areas and selected areas in Phnom Penh using Form A – Listing Sheet as well as interview of households with agriculture holdings using Form B – Basic Information on Agricultural Holding, which is the core module questionnaire. Hence, learn the procedures and the instructions for mapping and canvassing to efficiently accomplish your other tasks during the enumeration.

This chapter describes the detailed instructions and procedures for canvassing and mapping operations. It also explains the instructions on how to canvass an EA, which basically involves locating an EA; developing an efficient and systematic route of travel through the EA; updating the features of an EA (if there is any) in the map to be provided; listing/interviewing the households residing in the EA; and, plotting the house where the household lives in its exact location on the EA map. Most importantly, this chapter also teaches you how to read and update an EA map. An **EA** is a delineated portion of a village if the number of the households in the village is more than the set number of households listed during the 2008 census of population. It may also be the whole area of the village if the number of households is more or less equal to the set number of households listed in the past census of population. Note that village/EA maps to be provided will be those maps prepared and used in 2008 population census.

Prior to enumerating the agricultural households, familiarizing yourself with your assigned EA(s) is required. You may request information from any village official, particularly, the village leader, who can give you the boundaries of the village and its prominent features. In doing so, you can use effective strategies on what routes to take during enumeration. Take note of the prominent features of the EA, which may be needed in updating your village map(s) or EA map(s).

3.1 Canvassing an Enumeration Area

In canvassing an EA during the actual conduct of NCAC 2013 enumeration, observe the following procedures. Canvassing means investigation or seeking or searching.

How to Canvass an Enumeration Area with Blocks

A block is an area bounded on all sides by visible features such as streets, roads, rivers, and others, or by invisible features such as district, municipality or province boundaries. If the assigned EA is composed of blocks, apply the following canvassing procedures:

1. Canvass/Explore the area block by block, starting at the lower numbered block. Then completely canvass and enumerate all households one block at a time, in order of the block numbers shown next page, that is, Block 1, Block 2, Block 3, and so on, up to the last block.

2. For each block, start canvassing and enumerating households from a corner and go around the block preferably in a **clockwise direction** (KEEP RIGHT), along

the inner side of the bounding streets until the starting point has been reached. In enumerating households along the street or road, never go from one side of the street or road to the other side.

3. When you are near the boundary of the EA, ascertain whether the block still belongs to your area before proceeding to canvass and enumerate households in the said block.

4. Be observant at every point along the way for buildings at the block of front-row buildings. If a short alley or path is seen, enumerate the building encountered as soon as you come to the alley or path; always try to finish one side of the pathway or alley first until you reach a dead-end, before proceeding to the other side of the pathway/alley.

5. Encircle the block number on the map when you have finished canvassing and enumerating the block so that you can keep track of your progress.

6. Do not canvass block which do not have any building/houses, such as vacant lot, parking lot, baseball field, basketball court and others.

Example 3.1.1 EA Map with block

How to Canvass an Enumeration Area without Blocks

If your EA does not have blocks (see illustration), canvass/explore first the area as systematically as possible. If a street or road cuts through the middle of the EA, canvass on one side of the street or road first, and later on the other side.

In a densely-populated EA without blocks, where the buildings/houses are not systematically laid out, begin the canvassing and enumerating of households from one outer of the EA, then proceed to the next part, and so on, until all the densely-populated areas are covered. Sometimes, buildings/houses are clustered and the clusters are separated from each other by a path, alley, canal, water pipeline or fence. In such a situation, canvassing and enumeration shall proceed cluster by cluster. In any case, be sure to go through the alleys, paths, and other ways.

In rural areas, canvass and enumerate households from one end of an EA to the other end, particularly when buildings/houses are along the roads, riverbanks, shorelines, or mountains, or from one outer village or locality to the next, and so on, until the whole EA has been completely covered. For buildings/houses that are far from clusters of the rest of the buildings/houses, determine the routes to follow in order to canvass and enumerate the whole area.

Example 3.1.2 EA Map without block

In an EA where the buildings/houses are relatively dispersed, consult with the village officials or other knowledgeable persons on the best way to cover it. If necessary, draw lightly with a pencil on your map(s) the routes to take. While in the course of enumeration, always inquire about the buildings/houses in the vicinity that are hidden from view (such as those hidden by thick trees/bushes, the best routes to follow, and other helpful information.

How to canvass a Multi Storey Building/House

A storey is the space in a building between two or adjacent floor levels or between a floor and the roof. A building/house is multi-storeyed if it has two or more storeys. As such, there may be more than one household residing in a multi-storeyed building/house.

In a multi-storey building, canvass and enumerate storey (floor) by storey (floor), starting with the ground floor. Inquire about the possible persons living in closed rooms and rooms apparently used as offices.

In a multi-storey residential buildings/houses, watch out for a separate entrances and stairways leading to individual housing units. Canvass and enumerate the buildings/houses going from one entrance/stairway to another, including those on the ground floor.

In commercial and industrial buildings, inquire from offices or establishments on the ground floor or from other sources whether or not there are living quarters in any of the floors. Be sure to canvass and enumerate the entire building where there are living quarters.

3.2 Mapping

For the purposes of this census of agriculture, you will be provided with an EA or village map(s). Hence, mapping in this census generally refers to making updates on the given EA map in terms of its current features and plotting the household serial numbers using the proper building symbols on the exact location in the given map(s). Mapping job should be done almost simultaneously with listing and enumeration of households in the assigned EA.

EA Maps

The EA maps to be provided in this census are without plotted buildings/houses. This was used in the Census of Population in 2008 while some of these maps were used in the Economic Census 2011. Hence, it is expected that there would be changes that occurred from 2008 to 2013. Most of these changes would be features or land marks newly existed.

Example 3.2.1 EA Map of

How to Read a Map

To effectively carry out your mapping job during the census, you should be familiar with the basic symbols and their definitions used in the census-takings, as well as the basic procedures on how to update an EA map.

In general, maps are oriented to the North by an arrow pointing upwards, as indicated on the EA map provided to you. In the absences of this arrow, it is presumed that the North is towards the top of the map sheet. However, the EA map given to you may have the wrong orientation. Thus, you shall check the maps orientation and, if incorrect, indicate the proper orientation by drawing on the EA map an arrow that points to the North.

Another important feature to know is the general location of the village and the proper EA boundaries. On the EA map, a village boundary is represented by

. _____ . _____ . _____ . _____ .

While an EA boundary is represented by

. . _____ . . _____ . . _____ . . _____ . .

The standard geographic and cartographic symbols are presented in Illustration 3.1 on the next page. Use these symbols as guides in reading/updating the map.

How to update an EA Map

Prior to enumeration, study the EA map(s) provided to you by your supervisor. This map should have been updated as to the boundaries, roads, streets, and other landmarks. However, there might be cases wherein the EA map provided to you is not correct as to its orientation, or it needs further updating when it comes to boundaries, roads, streets and other landmarks. Hence, you shall update your EA map using the following procedures:

1. Check if your EA map is oriented to the North. If one faces the East where the sun rises and extends his/her left hand sidewise, the left hand is approximately pointing to the North. Then, orient your EA map in such a way that the location of the features existing on the ground. It is advised that you do your mapping orientation activity in the morning and then draw in your EA map an arrow pointing to the North.

2. Verify the natural and man-made features on the ground and draw correctly on your EA map the proper symbols for these features. Cross out any feature appealing on the map that no longer exists on the ground. Plot new prominent/important features in the area. Use pencil when making corrections on the EA map.

3. Make sure that the names of the streets, roads, rivers, and other features are correctly spelled out in the EA map. If not, line out the wrong name and write the correct one above it.

4. In areas without blocks, take note of the natural or man-made features of the area and the relative distance of these features to the buildings. Plot the buildings in the sketch map as accurately as possible.

5. Print and sign your name at the lower right corner of the map (village/EA and/or block maps) and write your designation and the date when you have completely canvassed the area and updated the map.

Example 3.2.2 Update EA Map of

How to Indicate Buildings on the Map

In the course of mapping the EA, indicate on the map the approximate location of buildings/structures/houses. Use the proper building symbols when plotting these buildings/houses on the EA map or mapping form, as shown in the illustrations on the next page.

Use the following: ◯ ➜for residential building wherein one or more households is actually living. (V) ➜ for residential building, which is completely vacant.

For other kinds of buildings, use the appropriate symbol. For instance, use the symbol for churches and put ◯ inside to indicate that there is a household living in that particular structure. Hence, this will be

Plot important commercial or industrial or agricultural buildings without households or housing units to serve as landmarks. Use the symbol provided <mark>below</mark>. Write the name of the building/establishment inside the symbol. But do not include these buildings in the listing form.

សញ្ញាផែនទី		ចេមម ភូម/មហ្លួលធរ្យន
ព្រំប្រទល់ភូមិ	– – – – –	Village Boundary
ព្រំប្រទល់សំណួរជាជ្រៀន	– – – – –	Enumeration Area Boundary
ទីតាំងលំនៅខ្លាន Resident	_____ R	
ផ្លូវជាតិ/ផ្លូវលំ	═══════	National Road / Dust Road
ផ្លូវរទេះ	– – – – –	Cart way
ផ្លូវរថភ្លើង	+++++++++	Rail way
ស្ពាន, ព្រែកជីក	⟩⟨ Canal	Bridge, Canal
ទន្លេ បឹង / ត្រពាំង	River, Lake / Small pond
ភ្នំ, ដំបូក	◎	Mountain / Termite mound
ព្រៃឈើ	ព្រៃឈើ Forest	
វាលស្រែ	⅄ ⅄ ⅄	Paddy field
វត្តអារាម	△	Pagoda
មន្ទីរពេទ្យ	មន្ទីរពេទ្យ	Hospital
សាលារៀន	សាលារៀន	School
កន្លែងផ្សេង		

How to Indicate Household Serial Numbers on the Map

During the listing and enumeration, each household listed shall be assigned a unique HSN. Write the 3-digit HSN right below the building symbol and as shown in the following example.

◯ ➔ indicating a residential building with one household residing
001

◯ ➔ representing a residential building with three households residing
002-005

How to Take Care of the Map

It is your responsibility to handle your map(s) with care. The map is a very important document/record of a census. It will be used from time to time as reference material for other activities (such as during supplementary module phase) of the NCAC 2013 and other surveys that will be conducted by NIS and MAFF.

Maps are best preserved if they are not folded or rolled. Folds and creases make a dent on the map that may eventually tear the map. Hence, do not fold your EA map or the accomplished mapping form.

In the field, you shall protect the map especially during bad weather. Water, in particular, causes rapid deterioration of the paper. If the map gets wet, the ink might blot, hence, destroy valuable information. Use pencil when writing on the map.

If the map is torn, you should redraw it as soon as possible.

CHAPTER 4
How to fill up Form A – Listing of Households

<mark>This chapter includes instructions in listing all households residing in all villages of each commune of each district of each province.</mark> The listing of households is a key step in identifying the households engaged in agricultural activities undertaken in agricultural land(s). A **household** is a group of persons (or a single person) who usually live together and have a common arrangement for food, such as using a common kitchen or a common food budget. The persons may be related to each other or may be non-relatives, including servants, friends or hired laborers as long as they live together and have common arrangement for food and other essentials for living.

An **agricultural activity** includes growing of crops such as cereal grains, root crops, fruits, nuts and other crops; market gardening such as vegetables, etc.; or growing of production of horticultural specialties and nursery products; and/or, raising of livestock/poultry.

In listing the households, Form A or Listing Form had been designed with eight (8) data items to be collected in the 23 provinces and selected district(s) of the only municipality in Cambodia. The listing form has geographic identification in order to distinguish the information from different agricultural holdings <mark>by the different administrative divisions existing in the country</mark>. An **agricultural holding** in Cambodia is an economic unit under single management comprising of at least 2 large livestock and/or at least 3 small livestock and/or at least <mark>25</mark> poultry of any kind and/or land with a size of at least 300 square meters (or 0.03 ha. or 3A) used wholly or partly for agricultural production purposes regardless of title, legal form or size. The single management may be exercised by an individual or household or jointly by two or more individuals or households or by a clan or tribe, or by a **juridical person** such as corporation, cooperative or government agency. An agricultural holding may consist of one or more parcels located in one or more separate areas or geographical or administrative divisions in the country, provided that the parcels share the same production means such as labor, machinery or draught animals or farm buildings.

A **parcel** is any piece of land of one land tenure type, entirely surrounded by other land or water or road or forest or other features not forming part of the holding. It may consist of one or more fields or plots adjacent to each other.

The upper left side of Form A includes the logo of the NCAC 2013, Royal Government of Cambodia and the two line ministries spearheading the census of agriculture, that is, Ministry of Planning and Ministry of Agriculture, Forestry and Fisheries. In this portion also, the NCAC 2013, name of the form, date of the census and confidentiality clause are written.

Section A1. Geographic (Area) Identification (Geo ID)

This section provides the location of the residence of the households. It consists of four administrative units recognized in the country.

1-1 Name and Code of the Municipality/Province

There are 23 provinces in the country and one municipality (Phnom Penh). The names and codes of these 24 areas are listed next page.

Name	Code	Name	Code
Banteay Meanchey	01	Prey Vihear	13
Battambang	02	Prey Veng	14
Kampong Cham	03	Pursat	15
Kampong Chnnang	04	Rattanak Kiri	16
Kampong Speu	05	Siemreap	17
Kampong Thom	06	Preah Sihanouk	18
Kampot	07	Stung Treng	19
Kandal	08	Svay Rieng	20
Koh Kong	09	Takeo	21
Kratie	10	Oddar Meanchey	22
Mondol Kiri	11	Kep	23
Phnom Penh	12	Pailin	24

Note that in this level, the codes are in two digits and unique. Enter the name and code in the space and two-digit boxes provided, respectively.

1-2 Name and Code of the Krong/Khan/District

The name and code of the 194 Krongs/Khans/Districts will be supplied by the overall supervisors in their assigned provinces. The code of the Krong/Khan/District is a two-digit number, usually starting from "01" in every province or municipality. Enter the name in the space provided and its corresponding code in the two boxes provided for these.

1-3 Name and Code of Commune/Sangkat

A total of 1,621 Communes/Sangkats are reported under the Krongs/Khans/Districts. The name and code of these administrative units will also be provided by the provincial supervisors. The code is also a two-digit number usually starting from "01" in every Krong/Khan/District. Enter the name of the commune/sangkat in the space provided and its corresponding code in the two boxes provided for these.

1-4 Name and Code of Village

The village is the smallest administrative unit in the country. As of this time, the number of villages totalled to 14,073. The name and code of each village that will be assigned to each enumerator will be given by the provincial supervisor. Enter the name of the village and its corresponding code in the space and two boxes provided, respectively.

1-5 Enumeration Area

An **EA** is a delineated portion of a village if the number of households is more than the required average number or the whole area of the village if the number of households is more or less equal to the average number of households. If the village has only one EA, enter "00" (dash) in the two boxes provided. If the village has more than one EA, enter the "01" in the boxes provided (one digit per box) for the first EA, then enter "02" in the second EA and so on and so forth.

Section A2. Information on the Involvement of Households in Agriculture and/or Aquaculture Activities

This section determines the households with agriculture activities (crop cultivation and/or raising livestock) and/or aquaculture activities. Be careful to ask each question under this section because this will provide the number of households to be interviewed using the

core module questionnaire and the number of households to be selected in answering the supplementary module questionnaires.

Q1. Serial Number

This is a consecutive number starting "001" to be given for each household to be listed in an enumeration area or in a village. Note that each household in each EA should be given a unique serial number. Two or more households should not be given same serial number. In each EA, start the serial number at "001" and enter it in column 1.

Q2. ID Poor Number

The Identification of Poor Households Programme (ID Poor) is led by the Ministry of Planning (MOP) in collaboration with the Department of Local Administration of the Ministry of Interior. The identification of poor households seeks to determine which households are poor and the poverty level of these individual households in rural villages. The purpose of identification of individual households is to directly target services and development assistance to the poorest households in a village in order to help lift them out of poverty and to protect them from the impact of shocks (e.g. serious illness, crop failure) which may deepen their poverty. The Identification of Poor Households data can also be used for calculating comparative poverty levels of villages, communes, districts and provinces. Service providers can use this data for targeting poorer communes or villages, and the poor households within those areas. Through this process, the Poor has been already given an identity as ID; that is, Poor Poverty Category 1 and 2. ID Poor 1 is the most vulnerable and porest household. ID Poor 2 is poor but not so much vulnerable as ID Poor 1. (These were excerpts from the Ministry of Planning).

Ask the respondent if his/her household has ID Poor Number. Enter the ID Poor Number of the household being listed in column 2. If the household being listed is not a poor household or NO ID Poor Number, enter "0".

Q3. Name of Household Head

A household head is the person who is mainly responsible for the care of the household members in terms of physical, social and financial needs. The household head may not be necessarily the oldest member of the household but it should be the one recognized by the members as such.

Write the name of the household head in the space provided in column 3; enter the family name first then the first or given name.

Q4. Exact Address of the Household

If the household has complete address in which there is a house number and street name, write this in column 4. This will indicate the exact location of the household in the EA. However, in most rural areas, there is no house number and street name. In this case, get any identification in order to locate the household if selected in the supplementary module phase of the census. An example of identification is "in front of the village leader's house" or aliases/assumed name such as "tamap", etc. Write this particular identification in column 4 if each household in the village has no house number and/or street name.

Q5. Did you or any of your household members engage in any crop cultivation activity during the last 12 months?

This question determines the household engaged in any crop cultivation during the last 12 months. Note that intensive agricultural activities in the homelot (the land where the house of the household being interviewed is located) such as vegetable gardening and/or around 20 permanent productive trees of same kind or different kinds are grown should be considered as engaged in any crop cultivation. This is answerable by Yes (code 1) or No (code 2). Enter the code corresponding to the answer of the respondent in column 5. If the respondent answers "Yes", proceed to answer Q6 and Q7. Otherwise, skip to Q8.

Q6. Did you or your household member engage in this crop cultivation in the last 12 months as:

      1 – paid employee or agricultural laborer or unpaid worker ➔ *go to Q8*
      2 – employer or own account or self-employed ➔ *go to Q7*

If the answer in Q5 is code 1 (Yes), Q6 determines whether the household is engaged in crop cultivation as paid employee/agricultural labourer/unpaid worker or own account/employer. Code 1 means that all member of the household is not engaged in own account crop cultivation but as paid employee(s) or agricultural labourer(s) or unpaid worker(s). If this is the case, enter code "1" in column 6 and skip to column 8.

If the household or at least one of its member is engaged in crop cultivation in own account (employer or self-employed), enter code "2" in column 6 and continue to ask Q7.

Q7. What is the total size of all agricultural lands that you are managing and using for agricultural activities?

Q7 is a follow-up question of Q5 and Q6 to determine whether the household is undertaking its own account agricultural activity in agricultural land(s), which is/are equal or greater than 0.03 hectare or 3a (Cambodian term). Note that you need to ask the total size of all agricultural lands used in crop cultivation. If the household has agricultural land(s) that is/are less than 0.03 hectare, enter code "1" and enter this in column 7. If the household reported agricultural land(s) of greater than or equal to 0.03 hectare or 3a, enter code "2" in column 7.

If the household is engaged in crop cultivation in the homelot only (meaning "no agricultural land"), there should be two conditions satisfied to be able to consider it as "household with agricultural holding": (1) there is an intensive crop cultivation being done in the homelot such as vegetable gardening and/or about 20 permanent productive trees of same kind or different kinds; and, (2) the portion of the homelot where there is intensive crop cultivation should be greater than or equal to 0.03 hectare or 3a. If these two conditions are satisfied, then enter code 2 for such household.

Note that if the answer in Q5 is code "1", in Q6 is code "2" and in Q7 is code "2"; then the household is already qualified to be interviewed using Form B – core module questionnaire. A household may have engaged in more than 1 agricultural activity: crop cultivation and raising livestock or it may have engaged in crop cultivation only or in raising livestock only. In any of these cases, only one core module questionnaire per household should be filled up.

Q8. Did you or any of your household members engage in own account raising livestock activity during the last 12 months?

This question determines the involvement of the household in another agricultural activity which is raising livestock. If the answer of the respondent is "Yes", enter code "1" in column 8 and continue to ask Q9; otherwise, enter code "2" and skip to Q11. Note that

Q9. How many livestock/poultry that you raise as of this day?

This question asks for the number of livestock and/or poultry being raised as of the time of visit to the household. There are three sub-columns included in this question. Column 9a pertains to total number of large livestock such as cattle, buffaloes, horses, etc., regardless of kind, sex and age. Column 9b seeks the total number of small livestock such as pigs, goats, etc., regardless of kind, sex and age. Column 9c asks for the total number of poultry such as chickens, ducks, etc., regardless of kind and age.

Enter the total number of the large livestock in column 9a; total number of small livestock in column 9b; and, total number of poultry in column 9c.

Note that if Q8 is code "1" and column 9a is 2 or more and/or column 9b is 3 or more and/or column 9c is 25 or more or combination of 1 large livestock and 2 small livestock or 15 poultry or 1 small livestock and 20 poultry or 2 small livestock and 15 poultry, the household is said to be engaged in raising livestock which can be the only agricultural activity or can be combined activity with crop cultivation. Hence, if

Q5=1; Q6=2; Q7=2 and/or Q8=1; and col. 9a ≥ 2 and/or col. 9b ≥ 3 and/or col. 9c ≥ 25

then DO NOT FORGET to ACCOMPLISH 1 core module questionnaire for the household.

Q10. Serial Number for Household with Core Module Questionnaire

This column 10 is reserved for sampling purposes. For every household interviewed for the core module questionnaire, provide a consecutive serial number starting "001". Enter this number in column 10. Note that such column is highlighted meaning this will be used to select the sample households with agricultural holdings that will be further interviewed during the supplementary module phase of the NCAC 2013.

Q11. Did you or any of your household members engage in the following own account fishery activity during the last 12 months?

This question determines whether the household is engaged in own account fishing activity. There are six choices for the response such as:

Code 1 – Yes, in aquaculture together with crop cultivation/raising livestock
Code 2 – Yes, solely aquaculture activity
Code 3 – Yes, capture fishing together with crop cultivation/raising livestock
Code 4 – Yes, solely capture fishing
Code 5 – Yes, combined capture fishing/aquaculture/crop cultivation/raising of livestock
Code 6 – Yes, solely combined capture fishing and aquaculture
Code 7 – Not engaged ➔ *end interview and go to the next household*

The first two codes (Codes 1 and 2) show the involvement of the household in aquaculture. However, the first code refers to the aquaculture activity being undertaken in connection with crop cultivation and/or raising livestock. This means that the aquaculture activity shares the same means of production such labour, equipment and machineries and financial resources. While the second code refers to the standalone aquaculture activity which means it is the only economic activity of the household or such activity is being

operated by a member of the household independently from the agricultural activity of the another household member. Note that an aquaculture activity can be also a separate activity of the household from its agricultural activity if each of these activities is managed (as holder) by different member of the household.

The next 2 codes (Codes 3 and 4) pertain to the involvement of the households in capture fishing. Capture fishing means the catching and/or gathering of fish and other aquatic products with or without fishing gear and/or boat. The capture fishing is usually done in fresh (such as river, lake, etc.) or marine water or gathering of fry/fingerlings/seashells along coastline of the sea/marine water. Code 3 refers to capture fishing being undertaken in connection with crop cultivation and/or raising livestock. This means that the capture fishing activity shares the same means of production such labour, equipment and machineries and financial resources. Code 4 refers to standalone capture fishing which means that this is the only economic activity of the household or such activity is being operated independently by a member of the households. Note that a capture fishing activity can be also a separate activity of the household from its agricultural activity if each of these activities is managed (as holder) by different member of the household.

Code 5 is the combined capture fishing and/or aquaculture and/or crop cultivation and/or raising of livestock which denotes that the capture fishing was done in connection with aquaculture and agricultural activities; that is, these activities used the same inputs such as labour, equipment and machineries and financial resources. Code 6 is solely combined capture fishing and aquaculture which means that these two activities are being done by the household together either using same labour, equipment/machineries and financial resources. The last code pertains to the non-involvement of the household in any aquaculture activity.

Enter the appropriate code in column 11 according to the reply of the respondent.

Q12. For Sampling Purposes

Like column 10, column 12 or Q12 will be used for sampling purposes of households with purely or solely aquaculture activities. Hence, this space should not be filled up.

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CHAPTER 5
How to Fill Up Form B – Basic Information on Agricultural Holdings

Form B is the questionnaire to be used in collecting the basic information of the agricultural holdings. This is to be accomplished for every household with own agricultural holding undertaking crop cultivation in an agricultural land(s) of at least 0.03 hectare and/or raising at least two large livestock and/or at least 3 small livestock and/or at least 25 poultry of any type or combination of livestock/poultry such as 1 small livestock and 20 poultry or 2 small livestock and 15 poultry.

Form B carries also the logo of the NCAC I and the names of the RGC and the other two ministries leading the undertaking the census such as the Ministry of Planning and Ministry of Agriculture, Forestry and Fisheries. These are placed in the upper left portion of Form B. In this portion, the title of the census, name of the form and the official date of the start of the census as well as the confidentiality clause are included.

Form B has 13 sections, which will be described in details under this chapter.

Section B1. Geographic (Area) Identification (Geo ID)

This section provides the location of the residence of the households. It consists of four administrative divisions recognized in the country.

1-1 Name and Code of the Municipality/Province

There are 23 provinces in the country and one municipality (Phnom Penh). The names and codes of these 24 areas are to be provided by the census trainer(s)/provincial supervisor(s) during the training. Write the name in the space provided while enter the two-digit in the boxes provided.

1-2 Name and Code of the Krong/Khan/District

The name and code of the 194 Krongs/Khans/Districts will be supplied by the overall supervisors in their assigned provinces. The code of the Krong/Khan/District is a two-digit number, usually starting from "01" in every province or municipality. Enter the name in the space provided and its corresponding code in the two boxes provided for these.

1-3 Name and Code of Commune/Sangkat

A total of 1,621 Communes/Sangkats are reported under the Krongs/Khans/Districts. The name and code of these administrative units will also be provided by the provincial supervisors. The code is also a two-digit number usually starting from "01" in every Krong/Khan/District. Enter the name of the commune/sangkat in the space provided and its corresponding code in the two boxes provided for these.

1-4 Name and Code of Village

The village is the smallest administrative unit in the country. As of this time, the number of villages totalled to 14,073. The name and code of each village assigned to each enumerator will be given by the provincial supervisor. Enter the name of the village and its corresponding code in the space and two boxes provided, respectively.

1-5 Enumeration Area

An **EA** is a delineated portion of a village if the number of households is more than the required average number or the whole area of the village if the number of households is more or less equal to the average number of households. If the village has only one EA, enter "00" (instead of dash) in the two boxes provided. If the village has more than one EA, enter "01" in the boxes provided (one digit per box) for the first EA, then enter "02" in the second EA and so on and so forth.

1-6 Household Serial Number

The household serial number is a consecutive number starting "001" used in Form A for all households listed whether engaged or not engaged in agricultural activities. This number can be found in column 1 of Form A. Use the number assigned in the household to be interviewed in Form B. Enter this number in the three boxes provided in Section B1.

Note: All these Geo IDs should be entered in Form B before the listing of all households and interviewing qualified households with agricultural holdings engaged in crop cultivation and/or raising of livestock/poultry.

Time Started

As soon as the interview begins using Form B, write down in the space provided the time started. Use the standard time format and add "am" or "pm". For example: 2:30 pm; 8:00 am, etc.

Time Finished

As soon as the respondent answers the last question in Form B, enter the time finished in the space provided. Use also the standard time format and add "am" or "pm".

Section B2. Respondent and Agricultural Holder Information

This section determines the name, age, sex and relation to head of the respondent. A **respondent** is any adult member (18 years old and over) of the household who should be knowledgeable of the agricultural holding activities. The most qualified respondent is the agriculture holder. However, in his absence the spouse or any son/daughter 18 years old and over can also act as respondent. DO NOT interview/ask neighbours or other households for the information of the household to be interviewed. No member below 18 years old should respond in this questionnaire.

Write the name of the respondent in the space provided. Enter the code for his/her sex in the box provided. Ask the age as of his/her last birthday and enter this in the two boxes provided. Write his/her relation to the head in the space provided. The respondent should be a member of the household.

In this section also the holder of the agricultural holding is determined. An **agricultural holder** is the person that makes the major decision regarding resource use; exercises management control over the agricultural holding operation; has technical and economic responsibility for the holding; and, may undertake all responsibilities directly or delegate day-to-day responsibilities to a hired manager.

Ask from the respondent who manages and mainly responsible (technical and financial) for the agricultural holding. Write the name of the agricultural holder in the space provided. His/Her sex and age as of last birthday should be entered in the corresponding

boxes provided in this section. Likewise, write his/her relation to head of the agricultural holder in the space provided. He may or may not be the household head.

Section B3. Legal Status of the Agricultural Holder

The legal status is is an important classification item for the agricultural census tabulation, especially in distinguishing between the household and non-household sectors. This item can also be useful for sampling frame purposes. Since Form B is to be accomplished for every household with agricultural holding, the choices of response for the legal status of the agricultural holding are as follows:

Code 1 – household operating 1 holding
Code 2 – household operating more than 1 holding
Code 3 – more than 1 household jointly operating 1 holding

Ask this question to the respondent and enter his/her response in the box provided. There should be only one legal status for each household with agricultural holding.

Section B4. Basic Characteristics of the Agricultural Holding

This section determines the total size and number of parcels of the agricultural holding as well as some other characteristics. An **agricultural holding** in Cambodia is an economic unit under single management comprising of at least 2 large livestock and/or at least 3 small livestock and/or at least 25 poultry of any kind and/or land with a size of at least 300 square meters (or 0.03 ha. or 3A) used wholly or partly for agricultural production purposes regardless of title, legal form or size.

Q4-1 Is the agricultural activity in the holding being done in any of the following?

Code 1 – agricultural land(s) including homelot
Code 2 – agricultural land(s) only
Code 3 – homelot only

This question determines whether the agricultural holding is made up of agricultural land(s) and/or homelot. In some rural areas in Cambodia, there may be households with agricultural activities but no agricultural land. Usually these households use their homelot in undertaking agricultural activities such as raising and keeping of livestock/poultry and/or intensive growing of crops. This question screens composition of the agricultural holdings.

Enter the appropriate code in the box provided based on the answer of the respondent. If the answer is code "1" or "2", proceed to ask the succeeding questions in Section B4. If the answer is code "3", skip to Section B9.

Q4-2a Total size of the agricultural holding in hectares

This refers to the actual measurement of the agricultural holding. Ask the total actual size of the agricultural holding from the respondent. Tell him/her to include all agricultural lands that were used in agricultural activities in the last 12 months and those being used as of the time of visit. Exclude land(s) that were rented out to other households. This/These should not be part of the holding. Enter or write the total size of the holding in hectares in the space provided. If the size of the holding includes decimal places, use only up to 2 decimal places.

Q4-2b Total Number of parcels on the agricultural holding

Ask from respondent the total number of agricultural parcel(s) comprising the agricultural holdings. A **parcel** is any piece of land of one land tenure type, entirely surrounded by other land or water or road or forest or other features not forming part of the holding. It may consist of one or more fields or plots adjacent to each other. Include fallow/idle land(s) or land under temporary meadows. Enter the number of parcels in the space provided. Please see illustrations starting in this page.

Illustration 4.2.1 One-piece parcel

1 hectare land grown with paddy
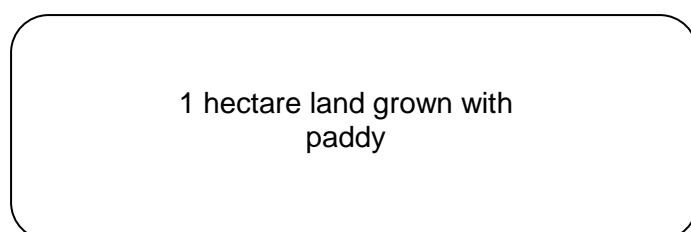
Illustration 4.2.2 Parcels with different land tenures separated by road or other land

0.25 hectare owned land grown with paddy

R
O
A
D

0.20 hectare land rented from other household with payment

owned fallow land with size of 0.10 hectare

0.10 rented free land planted w/ maize
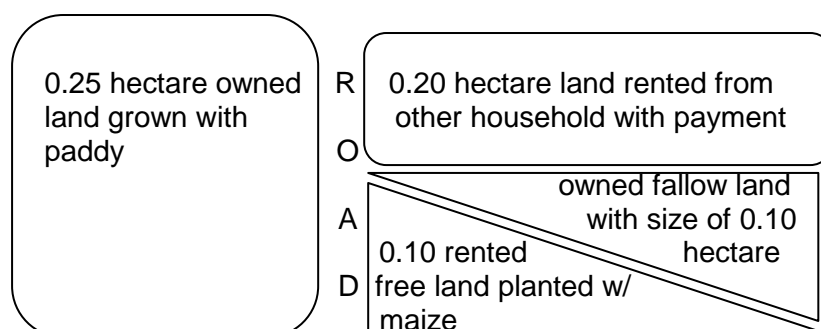
This is a case of 4 parcels separated by road with different land tenure: owned, rented free and rented from other household. The owned fallow land is also a parcel not adjacent to the other owned land grown with paddy

Illustration 4.2.3 Parcels separated by water

1 hectare of owned land grown with permanent crops

1 hectare of owned land grown with maize and papaya trees

2 hectares of owned land grown with paddy

24
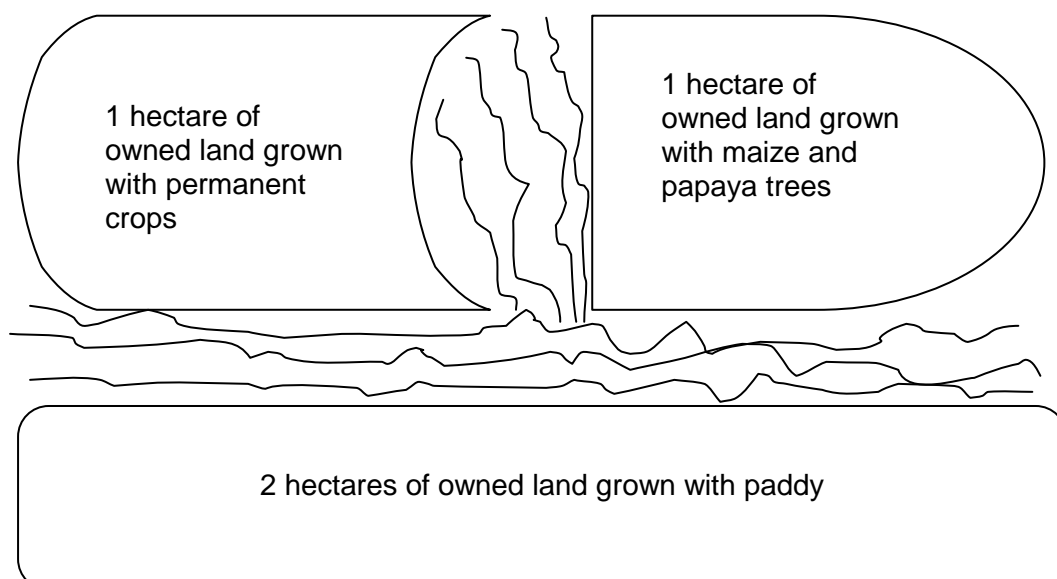
These are three parcels separated by canal/stream/lake/river

Illustration 4.2.4 Parcels separated by geographical boundaries

A parcel located within the residence of the holder

A parcel located in another commune outside the residence of the holder
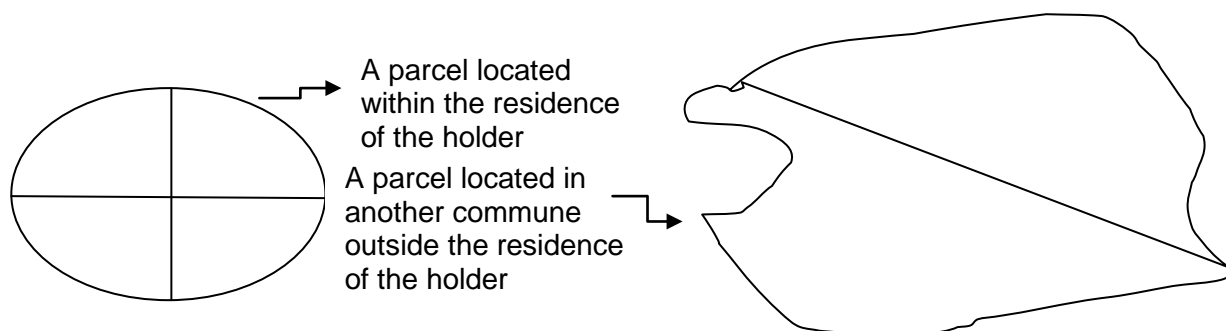
These are two parcels located in two different communes.

Illustration 4.2.5 Difference between a parcel, field and plot

Plot of maize

Field #1

Plot of cassava

Plot of vegetables

Field #2

Planted with mangoes

Path/cadastral boundary/hedge
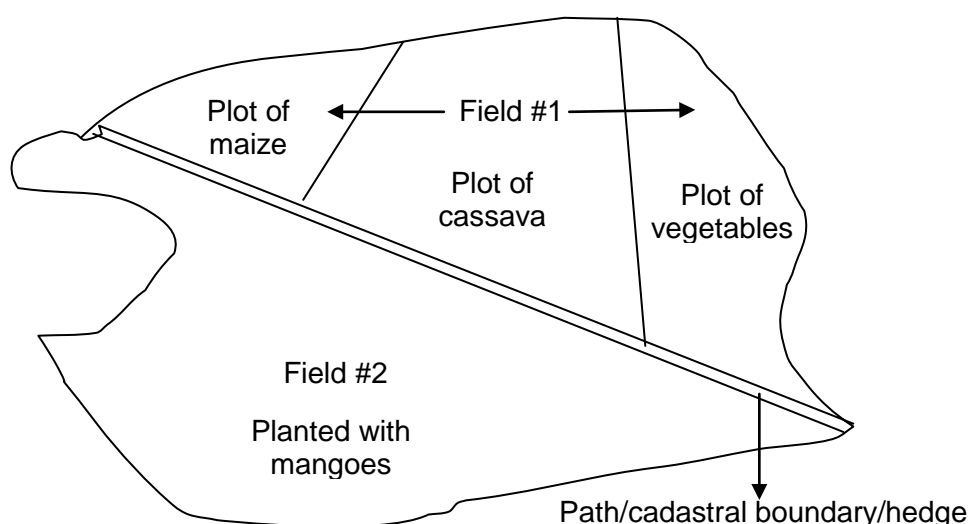
This is one parcel composed of 2 fields, in which one of the fields is divided into 3 plots (maize, cassava and vegetables) and one field planted with mangoes.

<mark>Q4-3 Detailed characteristics of the agricultural holding using parcel approach</mark>

<mark>This question seeks data on the four important characteristics of the parcels that make up the agricultural holding such as location, actual area, main land use and land tenure.</mark>

Column 1 – Parcel Serial Number

Number the parcel consecutively starting from "1". The last serial number should correspond to the total number of parcels reported in Q4-2.

Columns 2 to 6b – Location of the Parcel

There are two types of question under these columns. One pertains to the location within the residence of the agricultural holder while the other one refers to exact location of the parcel.

Column 2 - Is it located within the residence of the holder?

This determines whether the parcel is located within or outside the residence of the holder. The residence of the holder pertains to the geographic identification provided in Section B1. Hence, this means that the parcel location should be the same as the 4 administrative units (province, district, commune and village) reported in Section B1. If these are the same, enter code "1" for "Yes" in the box provided. If one of the administrative units changes, like the parcel is located in different village but within the same province, district and commune, the answer to this column is "No"; hence, enter code 2 in the box provided.

If the answer is "Yes" in column 2, go to column 7. If the answer is "No", ask the exact location of the parcel.

Columns 3a to 6b – If No in column 2, where is the parcel exactly located?

Ask the exact location of the parcel, if different from the residence of the agricultural holder. Write the name of the province and enter its code in columns 3a and 3b, respectively. Then ask for the name of the district where the parcel is located and write this in column 4a. Get its corresponding code in the geographic coding book and enter the two digit code in column 4b.

Likewise, do the same for the commune and village. Write the names of the commune and village in columns 5a and 6a, respectively. Then enter their corresponding codes in columns 5b and 6b.

Column 7 – What is the actual area of the parcel?

Ask from respondent the actual area of each parcel reported in Q4-2. Even if the parcel is less than 0.03 hectare as long as this is included as one of the parcels composing the agricultural holding of the household, include such land. The size of at least 0.03 hectare is used for the agricultural holding; not in the parcel except if the holding has only one parcel. Enter the actual area (up to 2 decimal places) of each parcel in the space provided.

Column 8 – What was the main land use of the parcel in the last 12 months?

This section seeks to determine the main land use of each parcel during the last 12 months. Land use refers to activities such as growing crops, raising livestock or cultivating fish – carried out on the land making up the holding with the intention of obtaining products and/or benefits. There are several choices in this question but only one answer is needed.

Code 1 – land under temporary crops includes all land use for crops with a less than one year growing cycle
Code 2 – land under permanent crops includes land uses permanently (for five years or more) to grow herbaceous crops forage crops, through cultivation or naturally (wild prairie or grazing land)
Code 3 – land under both temporary and permanent crops means the parcel is grown with combined temporary and permanent crops
Code 4 – land temporarily fallow refers to arable land at prolonged rest before re-cultivation; left idle at most 5 years
Code 5 – land under temporary meadows/pastures Includes land temporarily cultivated with herbaceous forage crops for mowing or pasture for a period of less than 5 years
Code 6 – land under permanent meadows/pastures include land uses permanently (for five years or more) to grow herbaceous crops forage crops, through cultivation or naturally (wild prairie or grazing land)

Code 7 – land under livestock/poultry is used to raise and keep livestock and/or poultry

Code 8 – land under aquaculture is used in culturing fish and other aquatic animals

Code 9 – other land, not elsewhere classified should include forest and wooded land (if cultivating non-food crops such as bamboo, eucalyptus, timber wood, etc.) and uncultivated land producing some kind of utilizable vegetable product, such as reeds or rushes for matting and bedding for livestock, wild berries, or plants and fruit. It also includes land which could be brought into crop production with little more effort in addition to that required in common cultivation practices. Also included under this category is: land used for aquaculture; land occupied by buildings; parks and ornamental gardens; roads or lanes; open spaces needed for storing equipment and products; wasteland; land under water; and any other land not reported under previous classes.

Note the illustration below regarding the classification of land use below.

Illustration 4.3.1 Classification of land use

I	II	III	IV
Agricultural land	Crop land	Arable Land	Land under temporary crops
			Land under temporary meadows
			Land temporarily fallow
		Land under permanent crops	
	Permanent meadows and pastures		
Forest or other wooded land			
Other land			

Enter the code of the reported main land use in each parcel in column 8.

Column 9 – What is the land tenure of the parcel?

This section determines the right or arrangement under which the holder operates the parcel(s) making up the holding. This right or arrangement pertains to **land tenure**. The following are the different land tenure categories used in this column.

Code 1 – owned/owner-like possession describes parcel rights that provide statutory security of tenure; security of tenure has various aspects. Importantly, the ownership must be recognized by the state, and administrative structures must be in place to ensure that property rights are enforceable; this may be done through a formal land title system, but could also include certain forms of customary land tenure arrangements where land rights are registered or certified in some way; typically, legal ownership implies that the owner of land has the right to determine how the land is used (within certain constraints), and may have the right to sell or rent out the land; and, it also implies that the owner may access credit using the land as collateral. This also includes land under inheritance proceedings.

Code 2 – rented from other households with payment in terms of money and/or produce means parcel that is rented or leased by the holder from other persons, usually for a limited time period; and, rental arrangements can take different forms; parcel may be rented for an agreed sum of money and/or produce, for a share of the produce, or in exchange for services.

Code 3 – rented free means the use of parcel is granted free, that is, without any form of payment.

Code 4 – other land tenure includes parcel operated on a squatter basis; that is private or public parcel operated without ownership title and without the owner's consent; parcel operated under transitory tenure forms, such as trusteeship; parcel received by members of collective holdings for individual use; etc.

Enter the code of the land tenure for each parcel in column 9 as reported by the respondent.

Q4-4 Do you have a paper to certify your ownership/rental of the parcel(s) reported in Q4-3f?

If the answer in one of the parcels in Q4-3f is code "1" or "2", this question should be asked. If the answer is "Yes", enter code 1 in the box provided; otherwise enter code 2 and go to Section B5.

However, if the answer in Q4-3f is code "3" or "4", enter code 3 (not applicable) in Q4-4 right away and go to Section B5.

Q4-5 What kind of paper do you have to certify your ownership/rental of the parcel(s) reported in Q4-3f?

If the answer is "Yes" (code 1) in Q4-4, this question should be asked. This question asks for the proof of ownership or rental of the parcel(s) reported as owned/owner-like or rented from other households with payment in terms of money and/or produce. The kind of paper that certify ownership or rental of parcel(s) may be any of the following:

Code 1 – certificate issued prior to the 2002 Land Law
Code 2 – titles issued by the government's Land Titling program after 2002
Code 3 – application receipt
Code 4 – land investigation paper
Code 5 – paper from local authority
Code 6 – rental contract
Code 7 – other, specify
Code 8 – lost it/could not find it
Code 9 – don't know/not sure

This question can have more than one response. If each or some of the above kind of proof was/were reported by the respondent, enter code 1 in the box provided. If one or more of these papers were not reported by the respondent, enter code 2 in the box provided.

Section B5. Presence of Forest and Other Wooded Lands

This section determines other land(s) that form(s) part of the holding. One of these is the forest and other wooded land, which is not classified as mainly "agricultural land". The **forest and other wooded lands** are defined as follows:

1. **Forest land** is a land with crown cover of more than 10 percent of trees able to reach a mature height of 5 meters or more. It includes natural and plantation forests. Areas that are temporarily not under trees but are expected to revert to forest are included. Forest tree nurseries that form an integral part of the forest should be included.
2. **Other wooded land** is land with: (i) crown cover of 5–10% for trees able to reach a height of 5 meters or more at maturity; or (ii) crown cover of more than 10% for

trees not able to reach a height of 5 meters at maturity; or (iii) shrub or bush cover of more than 10%.

Note the following distinction: Plantations of rubber, palm, and other cultivated food tree crops are generally considered to be permanent crops, whereas plantations of bamboo, cork oak, eucalyptus for oil, or any other cultivated non-food tree crops are considered to be forest and other wooded land. Hence, if the respondent reported bamboo, eucalyptus trees or any other non-food trees crops in Section B7, the answer to this question should be "Yes".

If the answer is "Yes", enter code 1 in the box provided. However, if the answer is "No", enter code 2 in the box provided.

Section B6. Use of Irrigation

This section provides information on the use or presence of irrigation in the holding. **Irrigation** refers to purposely providing land with water, other than rain, for improving pastures or crop production. It usually implies the existence of infrastructure and equipment for applying water to crops, such as irrigation canals, pumps, sprinklers or localized watering systems. It also includes manual watering of plants using buckets, watering cans or other devices. **Note that uncontrolled land flooding by overflowing of rivers or streams is NOT considered irrigation.**

Q6-1 Did you or your household use irrigation in this holding during the last 12 months?

There are four choices for the response under this section.

Code 1 – Yes, using government irrigation facilities
Code 2 – Yes, using other sources
Code 3 – Yes, using all of the above
Code 4 – No, did not use but depended on rain

Note that there are three "Yes" with different types of irrigation in the choices and the fourth one is "No". Enter the code corresponding to the answer of the respondent in the box provided under this section.

Section B7. Temporary Crops Planted

This section provides information on the different temporary crops planted in the holding in the last 12 months. **Temporary crops** refer to those crops with a less than 1 year cycle. A list of temporary crops and corresponding codes is to be provided separately to all enumerators. Use this list in coding all crops to be reported by the respondent.

Q7-1 Did you or your household plant any temporary crops in the reported parcel(s) under temporary crops and/or combined temporary/permanent crops in Section B4 during the last 12 months?

The answer to this question is either "Yes" or "No" that will be used to double check whether the agricultural household with agricultural holdings was engaged in crop cultivation in the last 12 months. Note that such household will not go this far in the interview if the answer in Q4 in Form A is "Yes", Q5 is code 2 (owned) and Q6 is code 2 (greater than 0.03

hectare). If the answer to Q7-1 is "Yes", enter code 1 in the box provided and proceed to ask Q7-2; otherwise, enter code 2 in the box provided and skip to Section B8.

Q7-2 If Yes in Q7-1, what temporary crops did you plant during the last 12 months?

In this question, list all temporary crops that were planted in the agricultural holding in the last 12 months. Include all major and minor crops whether food or non-food. Remember this is a census of agriculture and it should capture all kind of crops planted in the holding during the reference period. DO NOT include temporary crops planted in the homelot as of the time of visit since this will be reported in section B9.

Column 1 – Serial Number

This is for control purposes. Number the temporary crops reported consecutively starting in "01". There are 15 lines provided in this section. If these are not enough, a loose sheet for this section will be provided by the immediate supervisor.

Column 2a – Name of temporary crops

Write the name of crops as reported by the respondent in this column. Probe to capture all crops even minor crops. The NCAC 2013 is the only way to capture all temporary crops grown in the country. If the name of the temporary crop is not in any category in the list of crops, write still the name of such crop in column 2a.

Column 2b – Crop Code

Enter the corresponding code of the crop reported in column 2a under this column. See the list of temporary crops and codes. If the crop is not in any category of crops in the list of crops and codes but reported in column 2a, enter code "997". Categories of temporary crops are in "bold" letters. If the respondent doesn't know the name of the crop and no name is specified in column 2a, enter code "998".

Section B8. Permanent Crops Planted

This section collects and provides data on permanent crops planted as of the time of visit to the agricultural household. **Permanent crops** are those crops with more than 1 year growing cycle. The different permanent crops growing in the country are also included in the list of crops and codes. Please refer to this list in coding the permanent crops to be reported by the respondent.

Q8-1 Do you or your household have permanent crops in the reported parcel(s) under permanent crops and/or combined temporary and permanent crops in the holding in Section B4?

Ask the respondent this question and probe to get all the different crops planted in his/her agricultural holding. DO NOT include permanent crops planted in the homelot as of the time of visit since this will be reported in a separate section of Form B.

If the answer is "Yes", enter code 1 in the box provided and proceed to ask Q8-2. Otherwise, enter code 2 in the box provided and go to Section B9.

Q8-2 If Yes in Q8-1, what permanent crops do you have and are these in compact plantation?

There are four columns included under this question. Be careful in asking <mark>these columns for each permanent crop.</mark>

Column 1 – Serial Number

This is also for control purposes. Provide a unique serial number for each permanent crop to be reported by the respondent. Start the number by "01". There are also 15 lines provided under this section.

Column 2a – Name of Permanent Crops

Write down the name of permanent crop(s) in column 2a as reported by the respondent. Probe further to get all different permanent crops grown in the holding as of the time of visit. Note that non-food permanent crops such as bamboo, sandalwood, timber trees, etc. if grown/planted in the holding should be reported also in this section under column 2a. See list of crops and codes.

Column 2b – Crop Code

For every permanent crop reported in column 2a, enter its corresponding code in column 2b. The code for each reported permanent crop can be taken from the list of crops and codes. If the permanent crop is not in any category of crops in the list of crops and codes but reported in column 2a, enter code "997". Categories of permanent crops are in "bold" letters. If the respondent doesn't know the name of the crop and no name is specified in column 2a, enter code "998".

Column 2c - In compact plantation?

This column determines whether the reported permanent crop in column 2a is planted in compact plantation. **Compact plantation** means plants, trees and shrubs planted in a regular and systematic manner, such as in an orchard. Plants, trees or shrubs forming an irregular pattern but dense enough to be considered as an orchard, are also considered a compact plantation.

Ask more questions to determine whether the permanent crop is in compact plantation. One of the questions to be asked is "how many trees/shrubs do you have for such crop?" If the respondent replies that the number of trees cannot be determined since these are in large numbers, ask whether these permanent crops are planted in systematic or irregular pattern. If he/she responds to any of these ways of planting, then the permanent crop is in compact plantation and the answer to this column is "Yes" (code 1).

Enter code 1 if the answer in "Yes" in column 2c; otherwise, enter code 2.

Section B9. Homelot

<mark>Homelot</mark> means the land where the residence of the agricultural holder is located. Usually in the rural areas, the homelot is also a place where there are agricultural activities being undertaken such as growing of temporary crops like vegetables, herbs, etc. and growing of scattered permanent crops like fruit trees, etc. and/or raising and keeping livestock and/or poultry. This section is included in Form B in order to determine the number of homelot where agricultural activities are being conducted. <mark>Note that if the household has no agricultural lands but uses only the homelot for its agricultural activities, it should be reported in Form B if the activity is intensive for growing of crops and/or should satisfy the required number of livestock/poultry being raised.</mark>

Q9-1 Do you use part of your homelot in growing any edible crops and other non-food crops and/or raising livestock and/or poultry?

Note that this question includes also non-food crops that might have been planted in the homelot for purposes of home use or for occsional selling (like for roofing; firewood, medicinal, etc.). The question also includes the activity of raising livestock and/or poultry in the homelot as of the time of enumeration. If the answer to this question is "Yes", enter code 1 in the box provided and proceed to ask the next question. Otherwise, if the answer is "No", enter code 2 in the box provided and go to Section B10.

Q9-2 What is the total area of your homelot?

Ask for the actual size of the homelot (include the house and all other portions of the land/lot) in square meters since usually the homelot is only less a hectare. Enter this area in the space provided. Use whole number and two decimal places in entering the area.

Q9-3 What is the land tenure of this homelot?

The land tenure of the homelot will also be based on the four choices provided in the land tenure of each parcel in the agricultural holding.

Code 1 – Owned/owner-like possession
Code 2 – Rented from other households with payment in terms of money and/or produce
Code 3 – Rented free
Code 4 – Other land tenure

Enter the appropriate code based on the reply of the respondent in the box provided for this question.

Q9-4 Are there any crop(s) planted and/or livestock/poultry raised in the homelot as of the time of visit?

This question determines whether there are crop(s) planted and/or livestock/poultry being raised in the homelot as of the time of visit to the agricultural household. These plants/crops may be temporary and/or permanent and may be scattered or not. The livestock/poultry being raised in the homelot may be of any kind.

If the answer to Q9-4 is "Yes", enter code 1 in the box provided and proceed to ask the succeeding questions. Otherwise, enter code 2 in the box provided and skip to Section B10.

Q9-5 What is the size of the part of this homelot with crop(s) planted and/or used in raising/ keeping livestock/poultry as of the time of visit?

This question determines the actual size of the portion of the homelot being used in growing of temporary and/or permanent crop(s) and/or raising livestock/poultry as of the time of visit to the agricultural household. Ask and enter the size of this part of the homelot with crop(s) planted or used in livestock/poultry raising as of the time of visit in square meters in the box provided. If there is decimal places reported in the area, use two decimal places only. Do not include the area where the house is located if there is not use in any agricultural activity. If under the house the livestock and/or poultry are being kept or portion of the house is used to stock the harvested crops, then include the area of the house in the total measurement of the homelot.

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Q9-6 What are the temporary crops and/or permanent crops planted in the homelot as of the time of visit?

This question seeks to determine all crops (temporary and/or permanent) being grown in the homelot as of the time of visit to the agricultural household.

Columns 1a and 1b – Name of Temporary Crop and Crop Code

Ask and list all temporary crops (food and non-food) that can be found in the homelot during the time of visit to the agricultural household. Note that if the non-food temporary crop is only used as boundary or as decoration in the homelot, this crop should not be included in these columns. All temporary crops used for food should be included in these columns. See list of crops and codes for the right coding of reported temporary crops.

Enter the name and code of temporary crop in columns 1a and 1b, respectively, as reported by the respondent.

Columns 2a and 2b – Name of Permanent Crop and Crop Code

Ask and list all permanent crops found in the homelot as of the time of visit to the agricultural household. The permanent crops may be used for food or non-food purposes. However, if this non-food permanent crop is grown in the homelot for the purpose of using it for roofing or for the wall of the house of the agricultural holder or for occasional/partly selling, such crop should be included in these columns.

Enter the name and code of permanent crop in columns 2a and 2b, respectively, as reported by the respondent.

Column 3 – Number of productive trees/permanent crops

For every permanent crops reported in column 2a, ask and enter the number of productive trees/permanent crops in column 3. **Productive trees** refer to those that are bearing fruit and/or can be used for purposes other than food.

Section B10. Main Purpose of Production

The purpose of this section is to determine the number of agricultural holdings participating in the market economy. If a holding sells some produce and uses the rest for home consumption, the main purpose should be the one that represents the larger value of agricultural production. Sale includes selling produce for cash or in exchange for other produce (barter). Disposal of agricultural produce in other ways such as for payment of labor, sending to family members, gifts, or payment of taxes should not be considered in this section.

Enter the appropriate code according to the response of the respondent in the box provided. If half of the agricultural produce is used for consumption and half for sale, the economic value of for sale should prevail that those for home consumption. Hence, if this is the case, enter code 2 in the box provided.

Section B11. Livestock/Poultry Raised in the Holding

This section determines another agricultural activity conducted on the holding. Raising livestock and/or poultry is usually done in the homelot of the agricultural household specifically if this is a small-scale activity. However, there may be parcel(s) in the holding solely devoted in raising livestock and reported in Section B4.

Livestock refers to all animals, birds and insect kept or reared in captivity mainly for agricultural purposes; it includes cattle, buffaloes, sheep, goats, and pigs as well as poultry, bees and silkworms; domestic animals such as dogs and cats, are excluded unless they are being raised for food or for agricultural purposes.

Q11-1 Do you have livestock and/or poultry on the holding as of this day?

If the answer in Q8 of Form A is "Yes" or code 1 and in Q9 of Form A, col. 9a is ≥ 2 and/or col. 9b ≥ 3 and/or col. 9c ≥ 25 and/or combination of large and small livestock and/or poultry and/or if one of the parcels reported in Section B4 is under livestock/poultry, there should be a "Yes" response in Q11-1.

If the answer to this question is "Yes", enter code 1 in the box provided and proceed to ask Q11-2. If the answer is "No" in the box provided, enter code 2 and skip to Section B12.

Q11-2 If Yes in Q11-1, how many livestock and poultry do you have of this day?

For an answer of "Yes" in Q11-1, ask the type and number of livestock and/or poultry as of the time of visit to the agricultural household. Note that columns 1a, 1b and 2 are for the code, name and number of large livestock, respectively. The first two columns are pre-coded and the kind of large livestock is already listed. There are four kinds of large livestock listed in column 1b such as cattle, buffalo, horse and other large livestock that should be specified in this column. Ask and enter the number of large livestock as of day of visit in column 2 if there is a report from the respondent. Note that the answer in col. 2 should match the answer in col. 9a in Form A.

Columns 3a and 3b contain the code and name of the small livestock. There are three kinds of large livestock listed in column 3b such as pig, goat and other small livestock that should be specified in this column. In column 4, ask and enter the number of small livestock if the respondent reported such animal. Note that the answer in col. 4 should match the answer in col. 9b in Form A.

The last 3 columns are for the poultry. Columns 5a and 5b are for the code and kind of poultry. Six codes are provided for the kind of poultry such as chicken, duck, quail, swallow, turkey and other kind of poultry that should be specified in column 5b. Other kinds of poultry are geese, bees, silkworm, etc. Ask and enter the number of poultry per kind in column 6 based on the report of the respondent. Note that the answer in col. 6 should match the answer in col. 9c in Form A.

Section B12. Presence of Aquaculture

For the purpose of the NCAC 2013, the **presence of aquaculture** refers to aquaculture production activities carried out in association with agricultural production. This means that the aquaculture activities are integrated with agricultural production, such as in rice-cum-fish culture, or that aquaculture and agriculture share the same inputs, such as machinery and labor.

Aquaculture carried out independently of agricultural production is not included in this Form B (core module questionnaire) but should be included in Form A (listing of household);

for example, a household may have independently managed and operated agricultural and aquaculture activities. Inclusion in Form A of aquaculture being carried out independently or what is called as standalone aquaculture activity provides sampling frame for the supplementary module and future aquaculture survey.

Note that culturing fish in aquarium if for hobby purposes should be excluded in this section. However, if the household is culturing aquarium fish and other aquatic products for the purposes of selling or as a source of income, then this should be included. Those culturing fish mainly for home consumption should also be included as an aquaculture activity.

Q12-1 If code 1 in Q11 of the listing sheet, what type of aquaculture activity did you carry out in the agricultural holding in the last 12 months?

If the answer in Q11 of Form A is code 1, that is "Yes, in aquaculture together with crop cultivation and/or raising livestock", which means carried out in the agricultural holding in the last 12 months, the household should have engaged in at least 1 type of aquaculture activity specified in the first 6 data items, which refer to the types of aquaculture activities. Ask the type of aquaculture activity (or activities) and enter the appropriate code in the box provided according to the report of the respondent; that is, if reported "Engaged", enter code 1 or if reported "Not Engaged", enter code 2 in the box corresponding to the type of aquaculture.

Note if code other than 1 in Q11 of Form A, the answer to #7 should be code "1" (or Yes) and #1 to #6 should be coded as "2".

Section B13. Holder's Household Information

This section determines the number of household members by sex and age group as well as the number of members engaged in economic activities. A question on currently attending school is included in this section to establish some indicators for the household members aged 5-17 years old. However, this question asks for all members of the household, regardless of which age group they belong. Note that a household is a group of persons (or a single person) who usually live together and have a common arrangement for food, such as using a common kitchen or a common food budget. The persons may be related to each other or may be non-relatives, including servants or other employees, staying with the household.

Q13-1 Sex and Age Group of Household Members

These are already pre-determined and listed in this question or in column 1. Five age groups are used for the Male members as well as for the Female members in this question/column.

Q13-2 Total Number of Members as of day of visit

Under each sex and age group, ask and enter the total number of members in the holder's household in column 2.

Q13-3 How many of these members are currently attending school?

Of the total number of household members reported in column 2, ask the number of members currently attending school and enter this in column 3. Currently attending school means going to school and attending classes as of the time of visit to the agricultural

household. Note that there may not be any report for members belonging to age group 0-4 years old; hence, enter "0" under this age group in column 3.

Q13-4 How many of these members were engaged in any economic activity in the last 12 months?

Of the total number of household members reported in column 2, ask the number of members engaged in economic activity and enter this number in the appropriate column according to the type of economic activities engaged in. Note the following columns provided for each type of economic activity.

Column 4a – crop cultivation (own activity or other household's activity)
Column 4b – raising livestock and/or poultry (own activity or other household's activity)
Column 4c – aquaculture (own activity or other household's activity)
Column 4d – fishing (other than aquaculture) in marine/ inland water (own activity or other household's activity)
Column 4e – forestry-related activities (own activity or other household's activity)
Column 4f – agriculture services (providing services to other households such as plowing the land, planting, care of crops, etc.)
Column 4g – handicraft (refers to weaving, making baskets, etc.)
Column 4h – wholesale/retail trade (refers to selling goods)
Column 4i – other industry (includes, manufacturing, electricity, gas and water, working government; etc.)
Column 4j – other services (includes domestic helpers, transportation services, etc.)

Use these columns in entering the number of members in the holder's household. Note that such member may have more than 1 economic activity. All economic activities of any household member should be reported under this question. Be careful in asking this question on economic activities. Probe using further questions to collect the correct information. If there is no member reported in one or some columns but there is a total number reported in column 2, enter "0" in the said column(s).

Your name as the enumerator should be printed in the lower portion of the last page of Form B. Put your signature above your printed name. Write also the date when you finished interviewing and recording responses in Form B.

DO NOT Fill up the portion for the supervisor. This will be filled up by your team supervisor or any census supervisor that will check/review your filled up Form B.

CHAPTER 6
How to Fill up Form C – Growing of Crops

Form C is one of the supplementary module questionnaires that will be used to interview sample agricultural households with agricultural holding activities in crop cultivation. Agricultural household is a household for which agricultural production income is its largest income among all income sources. Agricultural production income includes income from growing crops and raising livestock; it excludes income from a paid agricultural job. Income includes income in cash and in kind.

This questionnaire includes the logo of the NCAC I, the Royal Government of Cambodia, the Ministry of Planning, Ministry of Agriculture, Forestry and Fisheries, the full title of the census, the name of the questionnaire, starting date of the census and the confidentiality clause. All these are written in the upper left portion of Form C.

Section C1. Geographic (Area) Identification (Geo ID)

This section consists of four administrative units recognized in the country. All the information in this section should be written and codes should be entered before interviewing the assigned sample households with agricultural holdings.

1-1 Name and Code of the Municipality/Province

Write the name of the province/municipality in the space provided and enter its two-digit code in the boxes provided. The name and code of this province are to be provided by the census trainer/provincial supervisor during the training.

1-2 Name and Code of the Krong/Khan/District

Enter the name of the district/krong/khan in the space provided and its corresponding code in the two boxes provided for this administrative unit. The code of the Krong/Khan/District is a two-digit number, usually starting from "01" in every province or municipality and to be provided during the training.

1-3 Name and Code of Commune/Sangkat

Enter the name of the commune/sangkat in the space provided and its corresponding code in the two boxes provided.

1-4 Name and Code of Village

The village is the smallest administrative unit in the country. Enter the name of the village and its corresponding code in the space and two boxes provided, respectively.

1-5 Enumeration Area

An enumeration area (EA) is a delineated portion of a village if the number of households is more than the required average number or the whole area of the village if the number of households is more or less equal to the average number of households. If the village has only one EA, enter "00" (instead of dash) in the two boxes provided. If the village has more than one EA, enter "01" in the boxes provided (one digit per box) for the first EA, then enter "02" in the second EA and so on and so forth.

1-6 Household Serial Number

The household serial number is a consecutive number starting "001" used in Form A for all households listed whether engaged or not engaged in agricultural activities. This number can be found in column 1 of Form A. Use the number assigned in the sample household to be interviewed in Form C. Enter this number in the three boxes provided in Section C1.

Holding Serial Number

This is a unique consecutive serial number to be assigned for every agricultural holding of the sample households to be interviewed in Form C. This serial number starts at "001" in every commune. This will be taken from the list of sample households with agricultural holding, which contains the name of the household head/agricultural holder, holding serial number and types of form to be used during the supplementary module data collection.

Note: All these Geo IDs and the Holding Serial Number should be entered in Form C before the interview of sample households.

Time Started

As soon as the interview begins using Form C, write down in the space provided the time started. Use the standard time format and add "am" or "pm". For example: 2:30 pm; 8:00 am, etc.

Time Finished

As soon as the respondent answers the last question, enter the time finished in the space provided. Use also the standard time format and add "am" or "pm".

Section C2. Respondent and Agricultural Holder Information

This section determines the name, age, sex and relation to head of the respondent. A **respondent** is any adult member (18 years old and over) of the household who should be knowledgeable of the agricultural holding activities. The most qualified respondent is the agriculture holder. However, in his absence the spouse or any son/daughter 18 years old and over can also act as respondent. DO NOT interview/ask neighbours or other households for the information of the household to be interviewed. No member below 18 years old should respond in this questionnaire.

Write the name of the respondent in the space provided. Enter the code for his/her sex in the box provided. Ask the age as of his/her last birthday and enter this in the two boxes provided. Write his/her relation to the head in the space provided. The respondent should be a member of the household.

In this section also the holder of the agricultural holding is determined. An **agricultural holder** is the person that makes the major decision regarding resource use; exercises management control over the agricultural holding operation; has technical and economic responsibility for the holding; and, may undertake all responsibilities directly or delegate day-to-day responsibilities to a hired manager.

Ask from the respondent the person who manages and mainly responsible (technical and financial) for the agricultural holding. Write the name of the agricultural holder in the space provided. His/Her sex and age as of last birthday should be entered in the

corresponding boxes provided in this section. Likewise, write his/her relation to head of the agricultural holder in the space provided. He may or may not be the household head.

This section includes also a question on sub-holder (Q2-3), that is, whether the agricultural holder assigned one of his household members to manage and take care of this holding on his behalf. If the answer to this question is "Yes", enter code 1 in the box provided and ask the name, sex, age and relation to head of the sub-holder. These should be written/entered in the corresponding space/boxes provided. If the answer is "No" in the sub-holder, enter code 2 in the box provided and skip to Section C3.

Section C3. Temporary Crops Planted and/or Harvested

This section is continuation of Section B4 of Form B. Hence, the parcel(s) reported under temporary crops and/or combined temporary and permanent crops in Section B4 of Form B should also be reported in this section. There should be consistency in the data collected in the actual area and main land use of the parcel(s) reported in columns 7 and 8 of Q4-3 of Section B4 of Form B and all columns in this section. However, there might be temporary crops planted in parcel(s) under livestock/poultry and/or under aquaculture and/or under other land use. Hence, probe to determine whether such parcel(s) used for other purposes were also used in growing temporary crops in the last 12 months.

Q3-1 Did you plant any temporary crop in this holding in last 12 months?

This question is answerable by "Yes" or "No". Temporary crops are those crops with less than a year growing cycle. If the answer is "Yes", enter code 1 in the box provided and ask the succeeding questions in this section; otherwise, enter code 2 in the box provided and skip to section C4.

Q3-2 Parcel Serial Number (same as the parcel reported in Form B)

All parcels to be reported in this question or in column 1 should be consistent with column 1 of Q4-3 of Section B4 in Form B. Note that growing of temporary crops should be asked in all parcels except the one lying temporarily idle in Section B4 of Form B. Note also that each reported parcel may occupy more than one line in this question since all temporary crops planted for each cropping duration and cropping pattern will be asked.

Enter the corresponding parcel number according to temporary crops planted, cropping duration, cropping pattern, area planted and/or area harvested in this question or in column 1. Repeat the parcel serial number in each line in column 1 as many times as there are temporary crops reported in column 2.

Q3-3a Kind of Temporary Crop Planted in the last 12 months

For each parcel reported in Q3-1 or in column 1, ask the name of temporary crop planted in the last 12 months and write the crop name(s) in this question or in column 2. Note that there may be more than 1 temporary crop that will be reported in each parcel. Hence, enter the names of these crops in separate rows or lines in column 2.

Q3-3b Crop Code

For each crop reported in column 2, enter the corresponding code in this question or in column 3. Use the list of crops and codes to get the correct code.

Q3-4 Month and Year when the crop was planted

Ask and enter the month and year during the last 12 months for each planted crop reported in column 2. Enter these in column 4. The last twelve months prior to census taking and to be used in this question/column are as follows:

04/12 – April 2012
05/12 – May 2012
06/12 – June 2012
07/12 – July 2012
08/12 – August 2012
09/12 – September 2012
10/12 – October 2012
11/12 – November 2012
12/12 – December 2012
01/13 – January 2013
02/13 – February 2013
03/13 – March 2013

If the temporary crop was planted before April 2012 but harvested during the last 12 month reference period, enter "00/00" in column 4. If the temporary crop planted within the reference period but it was destroyed and not harvested during the last 12 months, still enter the month and year when it was planted.

Q3-5 Month and Year when the crop was harvested

For each crop reported in column 2, ask and enter the month and year during the last 12 month when such crop was harvested. Enter these in column 5. Use the coding for the last 12 months listed in Q3-4.

If the temporary crop was planted during the reference period but harvested after the last 12 month reference period, enter "00/00" in column 5. If the temporary crop planted in the reference period but it was destroyed and no longer harvested due to some problems, enter "88/88" in column 5.

Q3-6 Area Planted

This question seeks to determine the area planted for each crop reported in column 2. **Area planted** is the area of land, which is planted with crop of the same type or different crops as many times within the reference period. If the area is planted with crops more than once, it will be equal to the sum of the area planted for all cropping seasons/durations.

Ask the area planted for each crop reported in column 2 in hectares and enter this in column 6. Note that the area planted for each crop for every cropping duration should be equal or less than the actual area of the parcel reported in column 7 of Section B4 of Form B. The area planted should reported up to 2 decimal places.

Q3-7 Cropping Pattern

This question seeks to determine the different cropping pattern used for each crop planted in the last 12 months. **Cropping pattern** described the way the crops were planted in all cropping durations. There are five choices for the response in this question.

Code 1 – Single crop only means only one temporary crop was planted in one cropping season only during the last 12 months.

Code 2 – Successive crops refer to the temporary crops grown more than once on the same land in the same agricultural year; it May involve the same crop or different crops.

Code 3 – Inter-planted crops refer to a crop planted between rows of another crop in a particular plot or field of a parcel.

Code 4 – Mixed crops refer to more than one crops are grown unsystematically in a plot or field of a parcel.

Code 5 – Associated crops refer to temporary crops grown in a compact plantation of permanent crops.

Enter the appropriate code according to the response of the respondent on the cropping pattern of the crop(s) reported in each parcel. Note that if a parcel has only one single crop reported (occupying only one row in Section C3), the crop is said to be single crop only (code 1). If the same parcel serial number has been repeated several times in Section C3 and same crop or another crop was reported in each cropping duration, then the cropping pattern is said to be successive crops (code 2). If there are at least 2 temporary crops reported in the same cropping duration, the crops might be inter-planted or in mixed cropping pattern. Note that successive cropping pattern can be combined in inter-planted or in mixed cropping.

Enter the code for the cropping pattern in column 7 based on the answer of the respondent.

Q3-8 Was this crop

Code 1 – Completely harvested means the crop was completely harvested within the reference period

Code 2 – Partially harvested means only a portion of the crop was harvested and the other portion to be harvested after the reference period.

Code 3 – To be harvested means all portions of the crop will be harvested after the reference period

Code 4 – Not harvested due to some reasons means the crop could not be harvested due to calamity or pest or drought.

Enter the appropriate code in column 8 based on the response of the respondent. Note that the answer to this question should be consistent with column 5 (Q3-5) and column 9 (Q3-9).

Q3-9 Area Harvested if code 1 or 2 in Q3-8

Ask and enter the actual area harvested in column 9 for each crop reported completely harvested (code 1) or partially harvested (code 2) in column 8. **Area harvested** refers to the total area from which the crop is gathered; and, covers only crops grown to maturity.

If the report in each crop in column 8 is either "to be harvested" (code 3) or "not to be harvested due to some reasons" (code 4), enter "0" in column 9.

Section C4. Permanent Crops

This section determines to collect the different permanent crops growing in the holding (still standing) as of the time of visit to the agricultural household. **Permanent crops** refer to those crops with more than 1 year growing cycle.

Q4-1 Do you have permanent crop(s) in this holding as of this time of visit?

This question asks whether there is a permanent crop in the holding as of the time of visit. If the answer is "Yes", enter code 1 in the box provided and proceed to ask all succeeding questions in this section; otherwise, enter code 2 in the box provided and skip to Section C5.

Q4-2 Parcel Serial Number

All parcels to be reported in this question or in column 1 should be consistent with column 1 of Q4-3 of Section B4 in Form B. Note that growing of permanent crops should be asked in all parcels except the one lying temporarily idle in Section B4 of Form B. Note also that each reported parcel may occupy more than one line in this question since all permanent crops grown for each parcel will be asked.

Enter the corresponding parcel number according to permanent crops planted; Repeat the parcel serial number in each line in column 1 as many times as there are permanent crops reported in column 2.

Q4-3a Kind of Permanent Crops as of the time of visit

Enter all permanent crops found in each parcel in separate line or row in column 2

Q4-3b Crop Code

For each permanent crop reported in column 2, enter the appropriate code as can be seen in the list of crops and codes. Enter this crop code in column 3.

Q4-4 Is this crop in compact plantation?

This question determines whether each permanent crop reported in each parcel is grown in compact plantation. As described in the previous chapter of the EN manual, **compact plantation** includes plants, trees and shrubs planted in a regular and systematic manner, such as in an orchard or plants, trees or shrubs forming an irregular pattern but dense enough to be considered as an orchard.

If the answer of the respondent to this question is "Yes", enter code 1 in the box in column 4; then proceed to ask Q4-5. If the answer is "No", enter code 2 in column 4 and skip to Q4-6.

Q4-5 If Yes in Q4-4, Area in Compact Plantation

If the answer in Q4-4 is "Yes", ask for the area in compact plantation in which the permanent crops is grown. Enter such area in hectares in column 5. Usually the permanent crops in compact plantation cannot be counted; hence, the area is much easier to ask.

Q4-6 If No in Q4-4, Number of productive permanent crops in scattered planting

If the answer in Q4-4 is "No", ask the number of productive permanent crops/trees/ shrubs that are grown in scattered planting. Crops in **scattered planting** are those crops planted in such a manner that it is not possible to estimate the area. Hence, if the area of scattered permanent crops cannot be easily determined, the number of trees/shrubs/crops that are productive or bearing fruits should be collected. Ask and enter the number of productive trees/crops/shrubs in scattered planting in column 6.

Section C5. Irrigation and Other Information Regarding Parcel

This section provides data on shifting cultivation, parcel(s) irrigated, area irrigated and type of irrigation system. These data items should also be collected using parcel approach. The parcel(s) reported in this section should be the same parcel(s) reported in Section B4 of Form B and Sections C3 and C4 of this Form C.

Q5-1 Parcel Serial Number (same as the parcel reported in Form B)

Every parcel reported in Section B4 of Form B should be reported in this question or in column 1. Enter these parcel serial numbers in this question. These should be the same as the parcels reported from Section B4 of Form B in column 1.

Q5-2 Was shifting cultivation practiced in this parcel during the last 12 months?

Shifting cultivation is a farming practice whereby a particular piece of land is cultivated for some years and then abandoned for a period sufficient to restore its fertility by natural vegetative growth before being re-cultivated. This is also called "slash and burn".

Ask the respondent if shifting cultivation is being practiced in each parcel in his/her agricultural holding. If the answer is "Yes" for each parcel, enter code 1 in column 2 corresponding to the parcel number; otherwise, enter code 2 in column 2. Ask this question for every parcel in the agricultural holding.

Q5-3 Was this parcel irrigated during the last 12 months?

This is another question to be asked for each parcel reported in column 1or in Q5-1. This question inquires whether the parcel is irrigated or not. **Irrigation** refers to purposely providing land with water, other than rain, for improving pastures or crop production. It usually implies the existence of infrastructure and equipment for applying water to crops, such as irrigation canals, pumps, sprinklers or localized watering systems. It also includes manual watering of plants using buckets, watering cans or other devices.

If the answer to this question in each parcel is "Yes", enter code 1 in column 3; otherwise, enter code 2 in column 3.

Q5-4 If "Yes" in Q5-3, what is the total irrigated area in this parcel?

Area irrigated refers to the actual area of the land irrigated, not the total area of crops irrigated. Thus, the land irrigated for successive crops in different seasons within the reference year is only counted once in computing the area of land irrigated.

Ask the total irrigated area for each parcel reported irrigated in Q5-3. Enter the area irrigated in hectares (up to 2 decimal places) in column 4.

Q5-5 What type of irrigation system did this parcel use during the last 12 months?

Inquire from the respondent the type of irrigation system used for every parcel reported irrigated in Q5-3. The type of irrigation system can be any of the following:

Code 1 – government irrigation system refers to the irrigation infrastructure of the government to provide/supply water in the rural areas where crops are planted or grown.
Code 2 – pumping system using well
Code 3 – sprinkling method using canal
Code 4 – tube/pipe system attached to spring/lake/river or any water source

Code 5 – other types of irrigation system, specify

Enter the code of the type of irrigation system in column 5 for every irrigated parcel as reported by the respondent. The respondent may report more than 1 type of irrigation system in each parcel or in some parcel(s). This question accepts multiple entries; hence, all corresponding codes based on the report of the respondent.

Q5-6 If the answer in Q5-5 is any code from 2 to 5, do you own the irrigation system used in the parcels under this holding?

This question is to be answered only once, not by every irrigated parcel, by "Yes" or "No". If the answer is "Yes", enter code 1 in the box provided; otherwise, enter code 2 in the box provided.

Section C6. Agricultural Practices

The agricultural practices included in this section pertains to use of fertilizers and other chemicals for all crops grown in the holding; use of rice seeds and type and source of these rice seeds.

Q6-1a Did this holding use fertilizer and other chemicals for at least one of the reported crops during the last 12 months?

Fertilizers refer to mineral or organic substances, natural or manufactured, which are applied to soil, irrigation water or a hydroponic medium, to supply plants with nutrients or to enhance plant growth. Two types of fertilizers are inorganic fertilizers which are manufactured through an industrial process and organic fertilizers which are prepared from processed plant or animal material and/or unprocessed mineral materials containing at least 5% of combined plant nutrients. Other chemicals include pesticides (includes insecticides), fungicides and herbicides.

If the answer to this question is "Yes", enter code 1 in the box provided and proceed to ask Q6-1b. If the answer is "No", enter code 2 in the box provided and skip to Q6-2a.

Q6-1b If Yes in Q6-1a, what kind of fertilizer(s) and other chemicals did you use for at least one of the reported crops during the last 12 months?

These fertilizers and other chemicals are already listed in this question. These are:

1 – inorganic fertilizers
2 – organic fertilizer
3 – pesticides
4 – fungicides
5 – herbicides
6 – other, specify

Ask from the respondent if each of these items is used for at least one of the reported crops in his/her holding. If he/she used each of these in at least one of the reported crops, enter code 1 in the box provided for each item; otherwise, if not used, enter code 2 in each box provided.

Q6-2a Did this holding use rice seeds during the last 12 months?

This question pertains to the use of rice seeds in the holding during the last 12 months. Ask this question from the respondent. If his or her answer is "Yes", enter code 1 in

the box provided for this question. Then proceed to ask the next two questions regarding rice seeds. If the answer is "No", enter code 2 in the box provided and skip to Section C7.

Q6-2b If Yes in Q6-2a, what type of rice seed did this holding during the last 12 months?

Ask the type of rice seed that he/she used in the agricultural holding during the last 12 months. The type of rice seeds can be any of the following:

Code 1 – high yielding variety
Code 2 – local variety

If each of these rice seed varieties is used in the agricultural holding, enter code 1 in the corresponding box provided. Otherwise, enter code 2.

Q6-2c Where did you get this rice seeds that were used during the last 12 months?

This question refers to the source of rice seeds, that is, how rice seeds were acquired. Rice seeds refer to the seeds themselves or the rice seedlings. The source of rice seeds can be from any of the following:

Code 1 – own produced refers to rice seeds obtained by setting aside a portion of the previous year's crop for use as seed for the current crop
Code 2 – bought from market or other producers refers to the purchase of seed, either for cash or in exchange for other commodities, through markets, or localized producers
Code 3 – provided by NGOs/Cooperative/International agency refers to donations of seed from NGOs/national or international institutions/
Code 4 – provided by the government means rice seeds were given by the government agencies in-charge of agriculture such as MAFF
Code 5 – provided by trader/company refers to seeds given by itinerant traders/trade networks
Code 6 – other, specify

If each source provides rice seeds to the agricultural holding and reported as such by the respondent, enter code 1 in the corresponding box provided. Otherwise, enter code 2.

Section C7. Implements, Equipment and Machineries used in the Holding

This section collects and provides data regarding the implements, equipment and machineries used in the holding during the last 12 months.

Q7-1 Did you use any implements, machineries and equipment on this holding in last 12 months?

This question is answerable by "Yes" or "No". If the answer is "Yes", enter code 1 in the box provided and proceed to ask the succeeding questions in this section. If the answer is "No", enter code 2 in the box provided and skip to Section C8.

Q7-2a Type of implements, equipment & machineries

Write the name of implements, equipment and machineries used in the holding in the last 12 months in column 1.

Q7-2b Code for the implement, equipment and machineries

Enter in column 2 the code of each reported implement/equipment/machinery in column 1. The names and codes of the implements/equipment/machineries are provided below Section C7.

Q7-3 Total Number Used

Ask the respondent the total number of each reported implement/equipment/ machinery and enter the number in column 3.

Q7-4 Number owned

From the total number of implements/equipment/machineries used in column 3, ask the number owned and enter this in column 4. If none, enter "0" in column 4.

Q7-5 Number borrowed from the government

From the total number of implements/equipment/machineries used in column 3, ask the number borrowed from the government and enter this in column 5. If none, enter "0" in column 5.

Q7-6 Number rented from the private sector

From the total number of implements/equipment/machineries used in column 3, ask the number rented from the private sector and enter this in column 6. If none, enter "0" in column 6.

Section C8. Agricultural Services

Agricultural services include receipt of agricultural extension, availment of credit/loan, access to agricultural information and access to market.

Q8-1a Did you avail any agricultural extension service during the last 12 months?

This question pertains to the use of agricultural extension services by the holding during the last 12 months. **Agricultural extension** refers to personal contact with extension personnel or direct participation in extension activities such as a farm demonstration. Agricultural extension refers to the provision of agricultural advice and information to crop such as farm management, selection of crop varieties and use of inputs such as fertilizers, credit, farm mechanization, plant protection, sustainable development, and marketing. These services may also be used by the government to distribute inputs, disseminate market information, and promote the production of particular commodities or crop varieties.

It does not include accessing extension material though printed brochures, radio, television or the Internet. Also, extension services should be limited to formal contacts with extension workers specifically employed for that task; advice received from other informal sources should not be included.

If the answer to this question is "Yes", enter code 1 in the box provided and proceed to ask Q8-1b; otherwise, enter code 2 in the box provided and skip to Q8-2a.

Q8-1b If Yes in Q8-1a, specify the source of agricultural extension service(s) that was/were availed of during the last 12 months.

An agricultural holder may have received extension services from more than one source in the last 12 months. Ask each of the listed source of agricultural extension service from the respondent whether he or she availed such extension service(s) from this source.

1 – Government
2 – Private companies
3 – Association within community
4 – NGOs
5 – Other, specify

If availed, enter code 1 in the corresponding box provided for each source of extension service. If not availed, enter code 2 in the corresponding box provided.

Q8-2a Did you avail any credits/loans to support your agricultural activities during the last 12 months?

This question pertains to receipt or availment of credits/loans to support agricultural activities in the last 12 months. **Credit for agricultural purposes** refers to any type of credit received for purposes related to the operations of the agricultural holding. This includes credit for purchasing crop, constructing farm buildings and purchasing farm machinery. Credit not related to agricultural operations, such as for construction of the holder's house, for other family businesses, or for consumption expenditure, should be excluded.

If the answer to this question is "Yes", enter code 1 in the box provided and proceed to ask Q8-2b; otherwise, enter code 2 in the box provided and skip to Q8-3a.

Q8-2b If Yes in Q8-2a, where did you avail the credit/loan during the last 12 months?

This question inquired about the source or provider of credits/loans. The typical sources of credits/loans are from any of these:

1 – Bank (commercial/development)
2 – Micro-finance
3 – Friends/Relatives
4 – Moneylender
5 – Cooperatives
6 – Self-help group
7 – Other sources, specify

If credit/loan was availed in each source, enter code 1 in the box provided for the source. If not availed, enter code 2 in the box provided.

Q8-3a Did you receive or access any agricultural information that helped you manage the agricultural holding during the last 12 months?

This question refers to whether the holder received information to help manage the agricultural holding during the last 12 months. This includes information on weather, selection of crop varieties, new agricultural practices, farm machinery, credit facilities, plant diseases and pests, marketing, and commodities or crop varieties being promoted by the Government.

If the answer to this question is "Yes", enter code 1 in the box provided and proceed to ask Q8-3b; otherwise, enter code 2 in the box provided and skip to Q8-4a.

Q8-3b If Yes in Q8-3a, where did you receive or access the agricultural information?

The source of agricultural information can be received from:
1 – Extension services
2 – Radio
3 – Television
4 – Newspapers
5 – Input agencies
6 – Internet
7 – Other farmers
8 – Other, specify

If agricultural information was received from each source, enter code 1 in the box provided for the source. If not received, enter code 2 in the box provided.

Q8-4a Do you know the nearest market from your holding/house where you can sell your agricultural produce?

This question determines whether the agricultural holder knows the nearest market from his/her holding/house where he/she can sell his/her agricultural products. If the answer to this question is "Yes", enter code 1 in the box provided and proceed to ask Q8-4b; otherwise, enter code 2 in the box provided and skip to Section C9.

Q8-4b If Yes in Q8-4a, did you bring and sell your agricultural produce/products in this nearest market from your holding/house during the last 12 months?

After determining the knowledge of the agricultural holder regarding the nearest market from his/her holding/house, this question asks whether he/she brings his/her agricultural produce in this nearest market. If the answer to this question is "Yes", enter code 1 in the box provided and proceed to ask Q8-4c; otherwise, enter code 2 in the box provided and skip to Section C9.

Q8-4c What is the approximate travel time to reach this nearest market from your holding/house?

Ask the approximate travel time to reach this nearest market from the respondent or the agricultural holder. The travel time should be from his/her holding/house to this nearest market and should be in terms of minutes. There are 4 choices for the response in this question.

Code 1 - Less than 30 minutes
Code 2 - 30–60 minutes
Code 3 - 60–120 minutes
Code 4 - More than 2 hours

Enter the code appropriate to the answer of the respondent in the box provided in this question.

Q8-4d What means did you use in reaching the nearest market to sell your agricultural products during the last 12 months?

Ask the means that the agricultural holder/respondent used in reaching the nearest market within the approximate travel time reported in Q8-4c. The respondent may have used several means such as

1 – using vehicle/motorcycle/bicycle/tricycle

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2 – using boat/raft
3 – using draught animals
4 – by foot
5 – Other, specify

If each means is used by the respondent/agricultural holder, enter code 1 in the box provided for each means. Otherwise, enter code 2 in the box provided.

Section C9. Membership in Organization and Other Relevant Information

This section includes membership in agricultural organization and receipt of any social protection program. The membership in organization is as of the time of visit while the latter is during the last 12 months.

Q9-1a Are you a member or anyone in your household a member of the community farmers' organization as of today?

Membership in any community farmers' organization provides empowerment in terms of exchange of knowledge, socialization, technical support and even financial support in times of need. If the answer to this question is "Yes", enter code 1 in the box provided and proceed to ask Q9-1b; otherwise, enter code 2 in the box provided and skip to Q9-2.

Q9-1b If Yes in Q9-1a, are you a member of which organization?

The agricultural holder may be a member of more than 1 organization such as

1. Farmers' Association
2. Farmers' Cooperative
3. Farmer Water Users' Community Organization
4. Other, specify

If the respondent/agricultural holder is a member of each specified organization above, enter code 1 in the box provided for such organization; otherwise, enter code 2.

Q9-2 Have you ever heard of any social protection program that you can avail for your agricultural productivities in case of calamities or famine or any unexpected event?

This question determines the knowledge of the respondent/agricultural holder regarding the social protection program that can be availed of in case of calamities or famine or unexpected event. If the answer to this question is "Yes", enter code 1 in the box provided and proceed to ask Q9-3; otherwise, enter code 2 in the box provided and end the interview for this questionnaire only or go to the next questionnaire.

Q9-3 If Yes in Q9-2 did you avail or access any social protection program during the last 12 months?

This question determines whether the agricultural holder availed of or accessed any social protection program during the last 12 months. If the answer to this question is "Yes", enter code 1 in the box provided and proceed to ask Q9-4; otherwise, enter code 2 in the box provided and end the interview for this questionnaire only or go to the next questionnaire.

Q9-4 What benefits did you avail of or access from this social protection program during the last 12 months?

This question inquires the benefits derived from the social protection program during the last 12 months. These can be any of the following.

1 – Rice seeds
2 – Loans
3 – Food and medicines
4 – Other, specify

If the specified benefits above were availed of or accessed during the last 12 months from the social protection program, enter code 1 in the box provided for each benefit; otherwise, enter code 2.

An illustration on how to fill up Form C is given in this chapter.

CHAPTER 7
How to Fill up Form D – Raising Livestock/Poultry

Form D is is one of the supplementary module questionnaires that will be used to interview sample agricultural households with agricultural holding activities in raising livestock/poultry. **Livestock** refers to all animals, birds and insect kept or reared in captivity mainly for agricultural purposes. It includes cattle, buffaloes, horses, pigs, goats, chickens, ducks, quails, turkeys, doves, etc. as well as poultry, bees and silkworms. Domestic animals such as dogs and cats are excluded unless they are being raised for food or for agricultural purposes. This questionnaire includes 5 sections composed of important data items on number of livestock/poultry as of the time of visit; inventory and disposal of livestock/poultry during the last 12 months; equipment and machineries; etc.

In the upper left portion of Form C, the logo of the NCAC I is placed. In this portion also, the Royal Government of Cambodia, the Ministry of Planning, Ministry of Agriculture, Forestry and Fisheries, the full title of the census, the name of the questionnaire, starting date of the census and the confidentiality clause are written.

Section D1. Geographic (Area) Identification (Geo ID)

This section consists of four administrative units recognized in the country. All the information in this section should be written and codes should be entered before interviewing the assigned sample households with agricultural holdings.

1-1 Name and Code of the Municipality/Province

Write the name of the province/municipality in the space provided and enter its two-digit code in the boxes provided. The name and code of this province are to be provided by the census trainer/provincial supervisor during the training.

1-2 Name and Code of the Krong/Khan/District

Enter the name of the district/krong/khan in the space provided and its corresponding code in the two boxes provided for this administrative unit. The code of the Krong/Khan/District is a two-digit number, usually starting from "01" in every province or municipality and to be provided during the training.

1-3 Name and Code of Commune/Sangkat

Enter the name of the commune/sangkat in the space provided and its corresponding code in the two boxes provided.

1-4 Name and Code of Village

The village is the smallest administrative unit in the country. Enter the name of the village and its corresponding code in the space and two boxes provided, respectively.

1-5 Enumeration Area

An enumeration area (EA) is a delineated portion of a village if the number of households is more than the required average number or the whole area of the village if the number of households is more or less equal to the average number of households. If the village has only one EA, enter "00" (instead of dash) in the two boxes provided. If the village

has more than one EA, enter "01" in the boxes provided (one digit per box) for the first EA, then enter "02" in the second EA and so on and so forth.

1-6 Household Serial Number

The household serial number is a consecutive number starting "001" used in Form A for all households listed whether engaged or not engaged in agricultural activities. This number can be found in column 1 of Form A. Use the number assigned in the sample household to be interviewed in Form D. Enter this number in the three boxes provided in Section D1.

Holding Serial Number

This is a unique consecutive serial number to be assigned for every agricultural holding of the sample households to be interviewed in Form C. This serial number starts at "001" in every commune. This will be taken from the list of sample households with agricultural holding, which contains the name of the household head/agricultural holder, holding serial number and types of form to be used during the supplementary module data collection.

Note: All these Geo IDs and the Holding Serial Number should be entered in Form D before the interview of the sample households with agricultural holdings.

Time Started

As soon as the interview begins using Form C, write down in the space provided the time started. Use the standard time format and add "am" or "pm". For example: 2:30 pm; 8:00 am, etc.

Time Finished

As soon as the respondent answers the last question, enter the time finished in the space provided. Use also the standard time format and add "am" or "pm".

Section D2. Respondent and Agricultural Holder Information

This section determines the name, age, sex and relation to head of the respondent. A **respondent** is any adult member (18 years old and over) of the household who should be knowledgeable of the agricultural holding activities. The most qualified respondent is the agriculture holder. However, in his absence the spouse or any son/daughter 18 years old and over can also act as respondent. DO NOT interview/ask neighbours or other households for the information of the household to be interviewed.

No member below 18 years old should respond in this questionnaire. Write the name of the respondent in the space provided. Enter the code for his/her sex in the box provided. Ask the age as of his/her last birthday and enter this in the two boxes provided. Write his/her relation to the head in the space provided. The respondent should be a member of the household.

In this section also the holder of the agricultural holding is determined. An **agricultural holder** is the person that makes the major decision regarding resource use; exercises management control over the agricultural holding operation; has technical and economic responsibility for the holding; and, may undertake all responsibilities directly or delegate day-to-day responsibilities to a hired manager.

Ask from the respondent the person who manages and mainly responsible (technical and financial) for the agricultural holding. Write the name of the agricultural holder in the space provided. His/Her sex and age as of last birthday should be entered in the corresponding boxes provided in this section. Likewise, write his/her relation to head of the agricultural holder in the space provided. He may or may not be the household head.

This section includes also a question on sub-holder (Q2-3), that is, whether the agricultural holder assigned one of his household members to manage and take care of the raising of livestock/poultry in the holding on his behalf. If the answer to this question is "Yes", enter code 1 in the box provided and ask the name, sex, age and relation to head of the sub-holder. These should be written/entered in the corresponding space/boxes provided. If the answer is "No" in Q2-3, enter code 2 in the box provided and skip to Section D3.

Section D3. Livestock/Poultry as of the time of enumeration

This section seeks to find out the number of livestock and/or poultry as of the time of visit to the agricultural household.

Q3-1 Does this holding raise any livestock and/or poultry as of this day?

This question provides the number of sample agricultural households with livestock/poultry as of the day of visit and the number of sample agricultural households without any livestock/poultry.

If the answer to this question is "Yes", enter code 1 in the box provided and proceed to ask all questions under Section D3. If the answer is "No", enter code 2 in the box provided and skip to Section D4.

Q3-1a Kind of large livestock

In this data item, the kind of large livestock is needed to be specified. There are 4 kinds of large livestock specified below the sub-section on large livestock. Enter the 2-digit code of the large livestock reported as of the time of visit in column 1. Note the following coding scheme for the large livestock.

Code 01 – cattle
Code 02 – buffalo
Code 03 – horse
Code 04 – other large livestock (this has to be specified in this column)

Q3-2 Number of male large livestock, by age group

This data item collects the number of male large livestock according to age group. The age groups are as follows:

Column 2a – less than 1 year
Column 2b – 1 year and less than 2 years
Column 2c – 2 years and more
Column 2d – total

In each of these columns, ask for the number of male large livestock; then enter the number in the respective column based on the report of the respondent. Add columns 2a, 2b and 2c to get the total in column 2d.

Q3-3 Number of female large livestock, by age group

This data item collects the number of female large livestock according to age group. The age groups under this data item are similar to that of Q3-2. These are as follows:

Column 3a – less than 1 year
Column 3b – 1 year and less than 2 years
Column 3c – 2 years and more
Column 3d – total

In each of these columns, ask for the number of female large livestock; then enter the number in the respective column based on the report of the respondent. Add columns 3a, 3b and 3c to get the total in column 3d.

Q3-4 Number of Cattle by Breed

This data item is to be collected only for the number of cattle. Skip this question or the three columns (4a, 4b and 4c) if the large livestock reported is other than cattle. There are three kinds of breed for cattle specified in three columns under this question

Column 4a – local
Column 4b – hybrid
Column 4c – imported

Ask the breed and number of cattle found in the holding as of the time of visit from the respondent. Enter the number of cattle according to breed in the appropriate column. Enter "0"in columns without report in this question.

Q3-5 Main Purpose

This question determines the main purpose of raising large livestock as of the time of visit. **Main purpose** refers to the main reason for the animals being raised and kept. The main purpose may be any of the following:

Code 1 – milk
Code 2 – meat
Code 3 – draught
Code 4 – breeding
Code 5 – sell alive
Code 6 – other specify

Ask this question from the respondent and enter the code of the main purpose for each type of large livestock raised as of the time of visit in column 5.

Q3-7 Kind of small livestock

Small livestock is consisted of pigs, goats, sheep, rabbit. Etc. The usual kind of small livestock found in the country are pigs and goats. Hence, the coding scheme of small livestock to be used in this portion is as follows.

Code 05 – pig
Code 06 – goat
Code 07 – other small livestock (this should be specified also in this question)

Note that the codes of the small livestock follow the last code number used in the large livestock. Enter the code of the small livestock based on the report of the respondent in column 7.

Q3-8 Number of male small livestock by age group

This data item collects the number of male small livestock according to age group. The age groups are as follows:

Column 8a – less than 1 year
Column 8b – 1 year and more
Column 8c – total

In each of these columns, ask for the number of male small livestock; then enter the number in the respective column based on the report of the respondent. Add columns 8a and 8b to get the total in column 8c.

Q3-9 Number of female small livestock by age group

This data item collects the number of male small livestock according to age group. The age groups are as follows:

Column 9a – less than 1 year
Column 9b – 1 year and more
Column 9c – total

In each of these columns, ask for the number of male small livestock; then enter the number in the respective column based on the report of the respondent. Add columns 9a and 9b to get the total in column 9c.

Q3-10 Number of Pigs by Breed

This data item should be collected only for the number of pigs. Skip this question or the 3 columns (10a, 10b and 10c) if the small livestock reported is other than pig. There are three kinds of breed for pig specified in three columns under this question

Column 10a – local
Column 10b – hybrid
Column 10c – imported

Ask the breed and number of pigs found in the holding as of the time of visit from the respondent. Enter the number of pigs according to breed in the appropriate column. Enter "0"in columns without report in this question.

Q3-11 Main Purpose

This question determines the main purpose of raising small livestock as of the time of visit. The main purpose may be any of the following:

Code 1 – meat
Code 2 – breeding
Code 3 – sell alive
Code 4 – other specify

Ask this question from the respondent and enter the code of the main purpose for each type of small livestock raised as of the time of visit in column 11.

Q3-12a and Q3-12b Kind and Code of Poultry

The names and corresponding codes of the kind of poultry that can be found in the agricultural holding are already listed in columns 12a and 12b under these questions. These are as follows:

Code 08 – chickens
Code 09 – ducks
Code 10 – quails
Code 11 – swallow
Code 12 – turkeys
Code 13 – other poultry, specify _____

As reported by the respondent, circle the code in column 12b corresponding to the kind of poultry reported.

Q3-13 Number, by Age of Poultry

The age grouping of poultry defined under this question is not the same as that of the large and small livestock. The age group is as follows:

Column 13a – Adult
Column 13b - Young birds less than 10 days
Column 13c – Total

In each of these columns, ask for the number of poultry; then enter the number in the respective column based on the report of the respondent. Add columns 13a and13b to get the total in column 13c.

Q3-14 Main Purpose

This question determines the main purpose for raising and keeping poultry as of the time of visit. The main purpose may be any of the following:

Code 1 – meat
Code 2 – egg
Code 3 – breeding
Code 4 – sell alive
Code 5 – other specify

Ask this question from the respondent and enter the code of the main purpose for each type of poultry raised as of the time of visit in column 14.

Q3-15 Are the livestock/poultry reported being shared with other household(s)?

This question seeks to find out whether the large and small livestock reported in the previous questions in Section D3 are shared with other household(s). If the answer to this question is "Yes", enter code 1 in the box provided for this question. If the answer is "No" to this question, enter code 2 in the box provided and skip to Q3-18.

Q3-16 How many households are sharing the reported livestock/poultry including your household?

Ask the number of households sharing the reported livestock in Q3-13. Enter the number in the box provided.

Q3-17 How many livestock/poultry are being shared?

Inquire from the respondent which of the reported livestock/poultry in Q3-1a, Q3-7 and Q12a is being shared with other household(s). If there is more than 1 livestock reported and shared with other household(s), enter the number of all types of livestock/poultry shared in the appropriate box provided

Q3-18 Where do you raise and keep the livestock/poultry?

This question determines the place where the livestock/poultry is being raised and kept as of the time of visit to the sample agricultural household. This question will also show that the raising livestock activity needs land(s). There are 4 specific places where the livestock/poultry can be raised and kept.

1 – homelot
2 – cropland
3 – open grazing land
4 – other household homelot
5 – other, specify

If each of the specified places above is reported by the respondent in raising and keeping livestock/poultry as of the time of visit, enter code 1 in the box provided for each place. Otherwise, enter code 2 if not used for livestock/poultry raising and keeping.

Section D4. Inventory of Livestock/Poultry during the last 12 months

This section provides information on the increase (being added through birth and/or acquisition) and decrease (through disposal) of livestock/poultry in the agricultural holding in the last 12 months.

Q4-1a and Q4-1b Name and Code of Livestock and Poultry

The name and corresponding code of each kind of livestock/poultry that may be reported added and/or disposed in the agricultural holding are already listed in columns 1a and 1b in these questions. The coding scheme used in column 1b is the same as the coding scheme used in Section D3.

As reported by the respondent, circle the code in column 1b corresponding to the kind of livestock/poultry reported.

Q4-2 Number born during the last 12 months

This question collects the number of livestock/poultry born in the agricultural holding during the last 12 months. **Number born** refers to birth of livestock/poultry during the reference period that were present in the holding at the time of birth. Birth to animals belonging to another holding should not be included.

Enter the number in column 2 corresponding to the row of livestock/poultry being reported.

Q4-3 Number received or bought during the last 12 months

This question determines that number of livestock/poultry received and/or acquired by the agricultural holdings during the last 12 months, Number acquired refers to purchases or acquisition of livestock by the agricultural holding during the reference period. This includes livestock/poultry received as gifts or as payment for work.

Enter the number in column 3 corresponding to the row of livestock/poultry being reported.

Q4-4 Number Disposed during the last 12 months

This question asks for the number of disposed livestock/poultry during the last 12 months. Disposal of livestock/poultry refers to sales or other disposals of animals being raised on the holding during the reference year. It includes animals sold, as well as animals given as a gift, for payment for services, or for other reasons.

Q4-4a Sold Alive

Ask from respondent the number of livestock/poultry sold alive in the last 12 months. Enter the number in column 4a corresponding to the row of the livestock/poultry being reported.

Q4-4b Slaughtered for consumption or for sale as meat

Number of livestock/poultry slaughtered refers to the number of slaughtering of animals that were being raised on the holding during the last 12 months. This includes slaughtering carried out on the holding, as well as slaughtering carried out by someone else on behalf of the holding. The purpose for slaughtering livestock/poultry is either for consumption or for sale as meat.

Ask from respondent the number of livestock/poultry slaughtered in the last 12 months. Enter the number in column 4b corresponding to the row of the livestock/poultry being reported.

Q4-4c Lost

This is a disposal of livestock/poultry not intentionally done in the agricultural holding but merely unforeseen event that is out of control by the agricultural household. Ask from respondent the number of livestock/poultry lost in the last 12 months. Enter the number in column 4c corresponding to the row of the livestock/poultry being reported.

Q4-4d Died

This is another disposal of livestock/poultry not intended to happen in the agricultural holding. The death of the livestock/poultry may be due to natural cause or accident or calamities. Ask from respondent the number of livestock/poultry died in the last 12 months. Enter the number in column 4d corresponding to the row of the livestock/poultry being reported.

Q4-4e Given away as gift, donation, etc.

Giving away of livestock/poultry as gift is a disposal done during special occasion like wedding, funeral, feast, etc. or as donation for a specific purpose. Ask from respondent the number of livestock/poultry given away as gift/donation in the last 12 months. Enter the number in column 4e corresponding to the row of the livestock/poultry being reported.

Q4-4f Other disposal

This refers to other disposal of livestock/poultry in the holding during the last 12 months. Ask from respondent the number of livestock/poultry disposed in other means in the last 12 months. Enter the number in column 4f corresponding to the row of the livestock/poultry being reported.

Section D5. Equipment, Machineries, Buildings and Agriculture Extension

This section collects and provides data regarding the implements, equipment and machineries used in raising livestock in the agricultural holding during the last 12 months.

Q5-1 Did you use any equipment and machineries in raising livestock during the last 12 months?

This question is answerable by "Yes" or "No". If the answer is "Yes", enter code 1 in the box provided and proceed to ask the related questions to Q5-1. If the answer is "No", enter code 2 in the box provided and skip to Q5-2a.

Q5-1a Type of equipment & machineries

Write the name of equipment and machineries used in the raising of livestock/poultry in the holding in the last 12 months in column 1a. Note that there are only four listed equipment and machineries under this question. Specify other types of equipment and machineries used in raising livestock/poultry so that this can be given importance during data processing.

Q5-1b Code for the equipment and machineries

Enter in column 1b the code of each reported equipment/machinery in column 1. The names and codes of the implements/equipment/machineries are provided below Q5-1.

Q5-1c Total Number Used

Ask the respondent the total number of each reported equipment/machinery and enter the number in column 1c.

Q5-1d Number owned

From the total number of equipment/machineries used in raising livestock/poultry, ask the number owned and enter this in column 1d. If none, enter "0" in column 1d.

Q5-1e Number borrowed from the government

From the total number of equipment/machineries used in raising livestock/poultry, ask the number borrowed from the government and enter this in column 1e. If none, enter "0" in column 1e.

Q5-1f Number rented from the private sector

From the total number of equipment/machineries used in raising livestock/poultry, ask the number rented from the private sector and enter this in column 1f. If none, enter "0" in column 1f.

Q5-2a Did you use any building/structure in raising livestock during the last 12 months?

The buildings/structures referred in this question are those non-residential buildings on the agricultural holding, used wholly or partly for raising and keeping livestock/poultry or storing livestock/poultry equipment and machineries used in the holding.

If the answer is "Yes", enter code 1 in the box provided and proceed to ask Q5-2b. If the answer is "No", enter code 2 in the box provided and skip to Q5-3a.

Q5-2b If Yes in Q5-2a, what kind of building/structure did you use during the last 12 months?

This question asks for the kind of building/structure used in raising livestock/poultry in the last 12 months. There are 8 specified buildings/structures under this question that may be used in raising and keeping livestock/poultry in the holding.

    1 – under the house covered with mosquito net
    2 – stable for livestock
    3 – stockyard
    4 – pigpen
    5 – chicken house
    6 – quail cage
    7 – fenced area
    8 – Other, specify

If each of these buildings/structures is reported used in raising and keeping livestock/poultry, enter code 1 in the corresponding box provided for such building/structure. Otherwise, enter code 2.

Q5-3a Did this holding avail any livestock veterinary and extension services during the last 12 months?

This question inquires about the veterinary and extension services availed of for the raising and keeping of livestock/poultry during the last 12 months. Veterinary services cover all professional veterinary services used to protect animal health for the livestock kept on the holding, including treatment of diseases, artificial insemination, vaccination, and surgical procedures. It should include services provided by government organizations, such as through veterinary field workers, as well as by the private sector.

If the answer is "Yes", enter code 1 in the box provided and proceed to ask Q5-3b. If the answer is "No", enter code 2 in the box provided and skip to Q5-4a.

Q5-3b If Yes in Q5-3b, what veterinary and extension services did you avail of during the last 12 months?

This question includes five kinds of veterinary and extension services that could have been availed of for the raising and keeping of livestock/poultry during the last 12 months.

    1 – vaccination
    2 – medicines & vitamins
    3 – free sample piglets, etc.
    4 – free training
    5 – Other, specify

If each of these veterinary and extension services is reported availed of for the raising and keeping of livestock/poultry, enter code 1 in the corresponding box provided for such service. Otherwise, enter code 2.

Q5-3c Who provided these veterinary and extension services?

This question determines the provider of the specified veterinary and extension services in Q5-3b. The provider of these services may be any of the following:

1 – Government
2 – NGOs
3 – Private company
4 – Other specify

If the respondent reported each of these service providers as source of veterinary and extension services that were availed of for the raising and keeping of livestock/poultry during the last 12 months, enter code 1 in the corresponding box provided for such service provider. Otherwise, enter code 2.

Q5-4a Did you avail any social protection program for the livestock/poultry during calamities in the last 12 months?

This question determines whether the agricultural holder availed of social protection program for the livestock/poultry during calamities or famine or unexpected event. If the answer to this question is "Yes", enter code 1 in the box provided and proceed to ask Q5-4b; otherwise, enter code 2 in the box provided and skip to Q5-5.

Q5-4b What benefits did you avail of or access from this social protection program during the last 12 months?

This question inquires the benefits derived from the social protection program during the last 12 months. These can be any of the following.

1 – livestock/poultry vaccination
2 – Loans
3 – Food and medicines
4 – Other, specify

If the specified benefits above were availed of for the livestock/poultry raising during the last 12 months from the social protection program, enter code 1 in the box provided for each benefit; otherwise, enter code 2.

Q5-5 Are you or anyone in your household a member of the community livestock raisers' association as of today?

Membership in any community livestock raisers' association provides means of exchanging knowledge/ideas, socialization, technical support and even financial support in times of need. If the answer to this question is "Yes", enter code 1 in the box provided otherwise, enter code 2 in the box provided.

Whether "Yes" or "No" to this question, end the interview for this questionnaire. Then go to the next questionnaire.

An illustration on how to fill up Form D is given in this chapter

CHAPTER 8
How to Fill up Form E – Aquaculture Activity

Form E or the aquaculture questionnaire will be used to capture data on the different aquaculture activities in the country during the last 12 months. This is one of the supplementary module instruments **Aquaculture** is the farming of aquatic organisms such as fish, crustaceans, mollusks and plants. Farming in this chapter refers to some intervention in the rearing process to enhance production, such as regular stocking, feeding and protection from predators. Aquaculture normally involves rearing of organisms from fry, spat or juveniles. Aquaculture may be carried out in ponds, paddy fields, lagoons, estuaries, irrigation canals or the sea, using structures such as cages and tanks. It may be in freshwater or saltwater.

Strictly speaking, Not All those engaged in aquaculture activity will be interviewed during the supplementary module phase of the NCAC 2013. The aquaculture activities managed and operated by the agricultural holder in connection with the operation of his/her agricultural holding in which the same means of production such as equipment and machineries and labour were used in these two economic activities will just be included in the conduct of the supplementary module. Form E includes 5 sections regarding details about the aquaculture holder, characteristics of aquaculture activity, household member involvement and other relevant information.

In the upper left portion of Form E, the logo of the NCAC 2013 is placed. In this portion also, the Royal Government of Cambodia, the Ministry of Planning, Ministry of Agriculture, Forestry and Fisheries, the full title of the census, the name of the questionnaire, starting date of the census and the confidentiality clause are written.

Section E1. Geographic (Area) Identification (Geo ID)

This section consists of four administrative divisions recognized in the country. All the information in this section should be written and codes should be entered before interviewing the assigned sample households with agricultural holdings.

1-1 Name and Code of the Municipality/Province

Write the name of the province/municipality in the space provided and enter its two-digit code in the boxes provided. The name and code of this province are to be provided by the census trainer/provincial supervisor during the training.

1-2 Name and Code of the Krong/Khan/District

Enter the name of the district/krong/khan in the space provided and its corresponding code in the two boxes provided for this administrative unit. The code of the Krong/Khan/District is a two-digit number, usually starting from "01" in every province or municipality and to be provided during the training.

1-3 Name and Code of Commune/Sangkat

Enter the name of the commune/sangkat in the space provided and its corresponding code in the two boxes provided.

1-4 Name and Code of Village

The village is the smallest administrative unit in the country. Enter the name of the village and its corresponding code in the space and two boxes provided, respectively.

1-5 Enumeration Area

An enumeration area (EA) is a delineated portion of a village if the number of households is more than the required average number or the whole area of the village if the number of households is more or less equal to the average number of households. If the village has only one EA, enter "00" (instead of dash) in the two boxes provided. If the village has more than one EA, enter "01" in the boxes provided (one digit per box) for the first EA, then enter "02" in the second EA and so on and so forth.

1-6 Household Serial Number

The household serial number is a consecutive number starting "001" used in Form A for all households listed whether engaged or not engaged in agricultural activities. This number can be found in column 1 of Form A. Use the number assigned in the sample household to be interviewed in Form E. Enter this number in the three boxes provided in Section E1.

Holding Serial Number

This is a unique consecutive serial number to be assigned for every agricultural holding of the sample households to be interviewed in Form C. This serial number starts at "001" in every commune. This will be taken from the list of sample households with agricultural holding, which contains the name of the household head/agricultural holder, holding serial number and types of form to be used during the supplementary module data collection.

Note: All these Geo IDs and the Holding Serial Number should be entered in Form E before the interview of the sample households with agricultural holdings.

Time Started

As soon as the interview begins using Form C, write down in the space provided the time started. Use the standard time format and add "am" or "pm". For example: 2:30 pm; 8:00 am, etc.

Time Finished

As soon as the respondent answers the last question, enter the time finished in the space provided. Use also the standard time format and add "am" or "pm".

Section E2. Respondent and Agricultural Holder Information

This section determines the name, age, sex and relation to head of the respondent. A **respondent** is any adult member (18 years old and over) of the household who should be knowledgeable of the agricultural holding activities. The most qualified respondent is the agriculture holder. However, in his/her absence the spouse or any son/daughter 18 years old and over can also act as respondent. DO NOT interview/ask neighbours or other households for the information of the household to be interviewed.

No member below 18 years old should respond in this questionnaire. Write the name of the respondent in the space provided. Enter the code for his/her sex in the box provided. Ask the age as of his/her last birthday and enter this in the two boxes provided. Write his/her

relation to the head in the space provided. The respondent should be a member of the household.

In this section also the holder of the agricultural holding is determined. An **aquaculture operator** is the person that makes the major decision regarding resource use; exercises management control over the aquaculture operation; has technical and economic responsibility for the aqua farm; and, may undertake all responsibilities directly or delegate day-to-day responsibilities to a hired manager.

Ask from the respondent the person who manages and mainly responsible (technical and financial) for the aquaculture activity. Write the name of the aquaculture operator in the space provided. His/Her sex and age as of last birthday should be entered in the corresponding boxes provided in this section. Likewise, write his/her relation to head of the household in the space provided. He may or may not be the household head. The aquaculture operator may also be the agricultural holder in which the aquaculture activity is connected.

This section includes also a question on sub-operator (Q2-3), that is, whether the aquaculture operator assigned one of his household members to manage and take care of the aquaculture activity on his behalf. If the answer to this question is "Yes", enter code 1 in the box provided and ask the name, sex, age and relation to head of the sub-operator. These should be written/entered in the corresponding space/boxes provided. If the answer is "No" in Q2-3, enter code 2 in the box provided and skip to Section E3.

Section E3. Details of the Aquaculture Activity

This section determines the type of aquaculture activity, location, actual area, type of water used, type of production facility, main specie cultured and kind of equipment and machineries used. All of these data items except the location and actual area will be collected using the last 12 months as the reference period.

Q3-1 Did you engage in own account in any aquaculture activity during the last 12 months?

This question determines whether the sample household is engaged in own account in any aquaculture activity during the last 12 months. Note that there will be 2-week gap between the core module phase and the supplementary module phase. Hence, Q3-1 is necessary to ask to find out whether the answer in Q11 of Form A and Section B12 of Form B will be consistent in this Form E. If the agricultural household that reported to have agricultural holding and aquaculture activity in which same production means are used will report that his/her household just recently stopped operating the aquaculture activity, you should still interview such household since the aquaculture operation information to be collected refer to those in the past 12 months.

If the answer to this is "Yes", enter code 1 in the box provided and proceed to ask the succeeding questions. If the answer is "No", enter code 2 in the box provided and end the interview for this questionnaire for the household being interviewed.

Q3-2 Detailed characteristics of the aquaculture activity during the last 12 months

This question pertains to the detailed characteristics of the aquaculture activity during the last 12 months. These characteristics will be discussed one by one in this part of Chapter 8.

Column 1 – Aquaculture Serial Number

Use this column in entering the serial number for each type of aquaculture activity to be reported in column 2 by the respondent. Provide this serial number consecutively starting "1".

Column 2 – Type of Aquaculture Activity

This column will collect the type of activity operated by the sample household in the last 12 months. There are 6 specified aquaculture activities in the country.

Code 1 – pond culture means the breeding or rearing of aquatic plants or animals in natural or artificial enclosures. Pond culture is usually carried out in stagnant waters with periodic water exchange or water flushing through inlets and outlets.

Code 2 – pen culture is the rearing aquatic animals or plants in lakes, rivers, reservoirs or open sea using pens

Code 3 – cage culture is also the rearing of aquatic animals or plants in the lakes, rivers, reservoirs or open sea using cages or net enclosures.

Note that pen culture used net enclosure from the water level down to the bottom of the bodies of water (such as river, lake, reservoirs or open sea). While the cage culture used net enclosure like an inverted mosquito net usually hanging held in place by floating structures or suspended by stakes in the four corners in open water bodies

Code 4 - Rice-cum-fish culture is the use of land for the culture of both rice and aquatic organisms. One form of rice-cum-fish culture is the introduction of brood-stock or seed into flooded paddy fields, often modified for aquaculture purposes. Another form of rice-cum-fish culture is where rice and fish are raised on the same land in different seasons.

Note that fishing associated with fish from the wild that enter paddy fields during flooding is not included.

Code 5 – hatchery is rearing or culturing aquatic animals or plants from the fry stage to juvenile stage.

Code 6 – Other aquaculture activity such as cultivation of shellfish or seaweeds; or raising frogs or crocodiles; or culturing pearls; etc.

Enter the appropriate code of the aquaculture activity operated and reported by the respondent in column 2.

Columns 3a to 5b – Location of the Aquaculture Activity

In this column, the exact location where the aquaculture activity is being operated by the sample household should be obtained carefully. The location of the aquaculture activity may be the same as the location of the residence of the operator. Ask further questions so that the exact location will be reported by the respondent.

Write the name of the province and enter its code in columns 3a and 3b, respectively. Then ask for the name of the district where the aquaculture activity is located and write this in column 4a. Get its corresponding code in the geographic coding book and enter the two digit code in column 4b. Likewise, do the same for the commune and village. Write the names of the commune and its corresponding code in columns 5a and 5b, respectively.

Column 6 – What is the actual area used in the aquaculture activity?

Ask from respondent the actual area of each parcel reported in Q4-2. Note that there is no set limit in the actual size of the aquaculture activity area. Hence, even if the aquaculture activity area is less than 0.03 hectare you should still interview such sample household. Enter the actual area (up to 2 decimal places) used in the aquaculture activity in the space provided in column 6.

Column 7 – Type of water used

This question asks whether the aquaculture activity of the sample household was carried out during the reference year using water in any of the following types.

Code 1 – **marine water or saltwater** refers to coastal and offshore waters where salinity is high and is not subject to significant daily or seasonal variation.

Code 2 – **Brackish water** refers to waters with appreciable salinity but not to a constant high level. It is characterized by fluctuations in salinity due to regular influxes of freshwater and seawater, such as in estuaries, coves, bays and fjords. Enclosed water bodies in which salinity is greater than freshwater but less than seawater are also regarded as brackish.

Code 3 - **Freshwater** refers to reservoirs, rivers, lakes and canals, with consistently negligible salinity.

Enter the code for the type of water used in the aquaculture activity area in column 7 based on the response of the respondent.

Column 8 - Type of Production Facility during the last 12 months

This question determines the type of production facility used in the aquaculture activity during the last 12 months. Note the following production facility specified in this column.

Code 1 – ponds refer to natural or artificial enclosures used usually in pond culture. Hatchery and cage culture can be undertaken also used in pond.

Code 2 – pens are net enclosure fixed by frameworks made of metal, plastic, bamboo or wood from the water level down to the bottom of the bodies of water such as river, lake, etc.

Code 3 – cages are net enclosures held in place by floating structures. Hapas are simple net enclosures suspended by stakes in the four corners in open water bodies.

Code 4 – paddy fields are used in the rice-cum-fish culture. Note that only such culture is using paddy fields.

Code 5 – culvert/tank/drum/aquarium/raceways is the production facility for hatchery. Note that backyard pond culture can also be used such production facility.

Tanks and raceways are fixed structures used for raising aquatic animals or plants. They are normally built above ground and can be made of bricks, concrete or plastic. Tanks are small round or rectangular structures, whereas raceways are long, narrow structures. Drum is a barrel usually used for reserving water. Aquarium is usually made of glass where fry or seeds are being raised or propagated.

Note that if the aquaculture activity is pen culture the production facility is only "pen". If pond culture, the production facility is pond or culvert/ tank/drum/aquarium/raceways. If cage culture, the production facility are cages and hapas. But cage culture can used pond facility where cages and

hapas can be built. If rice-cum-fish culture, the production facility is only paddy field. Hatchery can be undertaken in pond or culvert/tank/ drum/aquarium/raceways.

Enter the appropriate code for the type of production facility in column 8 according to the answer of the respondent.

Column 9 - Main specie that was cultured during the last 12 months

This column determines the main specie cultured in the aquaculture activity in the last 12 months. Note that there may be more than 1 species cultured in the reported type of aquaculture activity. Inquire from the respondent which of these species was the main specie (more than 50% of the total species) cultured in the last 12 months.

There are 6 species specified under Section E from which the answer of the respondent can be coded.

Code 1 - fish (such as catfish, tilapia, carp, snakehead, grouper, sea-perch, trout, eel, etc.)
Code 2 - shrimp/prawn
Code 3 - crab
Code 4 - frog
Code 5 - crocodile
Code 6 - other species, specify

Enter the appropriate code for the main specie cultured in column 9.

Column 10 - Kind of Equipment or Machineries Used in the last 12 months

The kind of equipment or machineries used in the aquaculture activity in the last 12 months is main data item needed to collect under this column. The equipment or machineries used in the last 12 months per aquaculture activity can be any of the following.

Code 1 - Aerator
Code 2 - Boat
Code 3 - Net
Code 4 - Food processor for feeds
Code 5 - Hand tractor
Code 6 - Generator/solar panel
Code 7 - Car/Motorcycle/tricycle/remork
Code 8 - other specify

Note that in column several or multiple answers can be included. Hence, if the respondent reported more than 1 equipment or machineries in each type of aquaculture activity, enter all codes separated by comma.

Section E4. Household Involvement and Hired Labor

This section will collect and provide data on the aquaculture labor in the last 12 months. Aquaculture labor includes household member involvement and labor force hired outside other than members.

Q4-1 Who was involved in the aquaculture activity during the last 12 months?

This question determines the different people involved in the aquaculture activity during the last 12 months. Hence, the succeeding questions under this part of Section E4 ask for the number by time worked, sex, age group and weekly working hours.

There are two parts under Q4-1, household involvement and hired labor, in the succeeding questions under Section E4.

Column 1 – Time Worked/Sex of Workers

This column is already pre-defined. The time worked pertains whether the person worked full time or part time or occasional. The sex of the person was also identified whether male or female.

Columns 2a to 2c – Number of household members involved by age group

These columns ask for the number of household member inside the sample household that was/were involved in the aquaculture activity in the last 12 months. The household members are grouped by age:

Column 2a – 5-14 years old
Column 2b – 15-17 years old
Column 2c – 18 years old and over

Time worked pertains to full time, part time, and occasional. This time worked depends on what the agricultural household considers as such.

Ask and enter the number of household members by each age group, sex and time worked in the respective column. Be careful to note down this number in the appropriate column. The total of the number in 3 columns should not exceed the number of household member reported in Form F.

Columns 3a to 3d - Number of Hired Labor (not household member), by weekly working hours

These next four columns pertain to the hired laborers which are not household members. The number of these hired laborers is asked according to their weekly working hours, by sex and time worked.

Column 3a – 21 hours or less
Column 3b – 22-49 hours
Column 3c – 50 hours and more
Column 3d – total

Ask and enter the number of hired labor in the aquaculture activity by weekly working hours and by sex and time worked.

Section E5. Other Relevant Information

This section deals with different information that are relevant in undertaking the aquaculture activity.

Q5-1 Which of the following did you produce in the aquaculture activity during the last 12 months?

This question determines the number of households with aquaculture activity that produces fry and/or fingerlings and/or both fry/fingerlings or none at all.

Enter the appropriate code in this question based on the reply of the respondent.

Q5-2 Did you use any building/structure in the aquaculture activity during the last 12 months?

Building/Structure in the aquaculture activity might have been used for office purposes of the aquaculture operator or for keeping the equipment or machineries or used to store feeds, fertilizers, etc. Note that the residence of the operator if used as office should not be included as building/structure used in aquaculture activity.

If the answer to this is "Yes", enter code 1 in the box provided. If the answer is "No", enter code 2 in the box.

Q5-3 Did this aquaculture activity avail any social protection and extension services during the last 12 months?

This question determines whether the aquaculture operator availed of any social protection and extension services during the last 12 months. If the answer to this question is "Yes", enter code 1 in the box provided and proceed to ask Q5-4; otherwise, enter code 2 in the box provided and go to Q5-5.

Q5-4 If Yes in Q5-3, what social protection and extension services did you avail of during the last 12 months?

This question inquires the services derived from the social protection and extension service during the last 12 months. These can be any of the following.

Code 1 - Advice regarding aquaculture
Code 2 - Free training
Code 3 - Free fingerling, fry, seed, etc.
Code 4 - Loan
Code 5 - Other, specify

If the specified services above were availed of during the last 12 months from the social protection program, enter code 1 in the box provided for each benefit; otherwise, enter code 2.

Q5-5 Are you a member or anyone in your household has membership in the community fisheries or aquaculture association/organization as of today?

Membership in the community fisheries or aquaculture association/organization provides venue to exchange ideas/knowledge, socialization, technical support and even financial support in times of need. If the answer to this question is "Yes", enter code 1 in the box provided; otherwise, enter code 2 in the box provided and end interview for Form E.

CHAPTER 9
How to Fill up Form F – Agricultural Household and Its Socio-Economic Activities

Form F or the household questionnaire will be used to capture data on the different socio-demographic and economic characteristics of the agricultural household and its members. This is the fifth supplementary module instrument to be included in the NCAC I. **A household** is a group of persons who usually live together and have a common arrangement for food, such as using a common kitchen or a common food budget. The persons may be related to each other or may be non-relatives, including servants or other employees, staying with the employer. A person living alone is a single person household. If the household is engaged in any agricultural holding as defined in the previous chapters is considered an **agricultural household**.

In the upper left portion of Form F, the logo of the NCAC I is placed. In this portion also, the Royal Government of Cambodia, the Ministry of Planning, Ministry of Agriculture, Forestry and Fisheries, the full title of the census, the name of the questionnaire, starting date of the census and the confidentiality clause are written.

Section F1. Geographic (Area) Identification (Geo ID)

This section consists of four administrative units recognized in the country. All the information in this section should be written and codes should be entered before interviewing the assigned sample households with agricultural holdings.

1-1 Name and Code of the Municipality/Province

Write the name of the province/municipality in the space provided and enter its two-digit code in the boxes provided. The name and code of this province are to be provided by the census trainer/provincial supervisor during the training.

1-2 Name and Code of the Krong/Khan/District

Enter the name of the district/krong/khan in the space provided and its corresponding code in the two boxes provided for this administrative unit. The code of the Krong/Khan/District is a two-digit number, usually starting from "01" in every province or municipality and to be provided during the training.

1-3 Name and Code of Commune/Sangkat

Enter the name of the commune/sangkat in the space provided and its corresponding code in the two boxes provided.

1-4 Name and Code of Village

The village is the smallest administrative unit in the country. Enter the name of the village and its corresponding code in the space and two boxes provided, respectively.

1-5 Enumeration Area

An enumeration area (EA) is a delineated portion of a village if the number of households is more than the required average number or the whole area of the village if the number of households is more or less equal to the average number of households. If the

village has only one EA, enter "00" (instead of dash) in the two boxes provided. If the village has more than one EA, enter "01" in the boxes provided (one digit per box) for the first EA, then enter "02" in the second EA and so on and so forth.

1-6 Household Serial Number

The household serial number is a consecutive number starting "001" used in Form A for all households listed whether engaged or not engaged in agricultural activities. This number can be found in column 1 of Form A. Use the number assigned in the sample household to be interviewed in Form F. Enter this number in the three boxes provided in Section F1.

Time Started

As soon as the interview begins using Form C, write down in the space provided the time started. Use the standard time format and add "am" or "pm". For example: 2:30 pm; 8:00 am, etc.

Time Finished

As soon as the respondent answers the last question, enter the time finished in the space provided. Use also the standard time format and add "am" or "pm".

Section F2. Respondent and Agricultural Holder Information

This section determines the name, age, sex and relation to head of the respondent. A **respondent** is any adult member (18 years old and over) of the household who should be knowledgeable of the agricultural holding activities. The most qualified respondent is the agriculture holder. However, in his absence the spouse or any son/daughter 18 years old and over can also act as respondent. DO NOT interview/ask neighbours or other households for the information of the household to be interviewed.

No member below 18 years old should respond in this questionnaire. Write the name of the respondent in the space provided. Enter the code for his/her sex in the box provided. Ask the age as of his/her last birthday and enter this in the two boxes provided. Enter the code of his/her relation to the head in the space provided. Such code can be found in the lower portion of Section F3. Note that the code of the sex, the age and code of relation to household head for the respondent should correspond to the answers in Section F3, cols. 4, 5 and 3, respectively. The respondent should be a member of the household and should be included in Section F3.

In this section also the name, sex, age and relation to head of the agricultural holder should be entered in Q2-2. Copy all information from Form C – growing of crops. However, enter the code for relation to household head; refer to bottom portion of Section F3 for such code. All information about the agricultural holder should be the same as the data that will be entered in cols. 4, 5 and 3, respectively, of Section F3.

Section F3. Holder's Household Member Information

This section inquires the socio-demographic and economic characteristics of the members of the holder's household. These are important in determining the size of the agricultural household, composition of the membership whether young or old membership, whether employed or mostly dependent on the household head, whether the agricultural

holder is also the household head, whether with or without physical difficulty, and time used in primary and/or secondary economic activities.

Before writing anything starting in column 1 for membership, be sure to ask the number of members usually residing in the household as of the time of visit. It is possible that there may be several families living together under the same roof or same house. But if there is no common arrangement in the preparation of food, then they are defined as a separate household. The membership of the household is that they have common arrangement of food and live under the same roof or common provision of other essentials for living.

Follow the suggested order of enumeration of household members. Start the list of the membership with the household head, followed by the spouse, and the unmarried children from eldest to youngest and then married children and their related families from eldest to youngest. And also parent, parent-in-law, other relatives and other unrelated members of the household like household helpers, whom should be living together with the household. Because it is very important to obtain the accurate count of the household membership, therefore, the babies should even be included in the list.

As the enumeration will generate a population count of those engaged in agriculture in each administrative unit in the country, it is necessary for all enumerators to get every member of the household. To avoid double counting, the usual residence approach, which is called the *de jure* concept, is recommended for the agricultural census. This is the way official agricultural household population estimates are normally made. Usually, it is not difficult to identify a person's place of usual residence. However, sometimes members of a family are studying or working away from the family home and return home regularly. When asking for the members of the household, it should be emphasized to the respondent that who usually reside in his/her house as of the time of visit.

In determining the members to be included, follow the procedures below:

1. Those who are present at the time of enumeration who are members of the household for at least six months.
2. Children who are studying elsewhere but go back home at least once in 6 months;
3. Other members who are temporarily away but within Cambodia and expected to return within 6 months;
4. Other members who are abroad or working abroad but expected to be back within one year or depending on their work contract if working abroad, as long as they are not considered as permanent resident in other countries.
5. Additional members of the household who have not been there for at least six months but would stay permanently with the household due to birth or marriage.
6. Other persons who have not been living with the household for at least six months but cannot be enumerated elsewhere in a household.
7. Newly born babies.

The following are to be excluded as members of the household:

1. Temporary local visitors of the household who is intending to go back to their household within six months.
2. Foreign visitors of the household who are intending to return to their country of origin within one year.
3. New member of the household who have stayed with the household in less than 6 months who came from another household. The usual residence concept puts a boundary of at least 6 months residence therefore this person will still be

enumerated in the household where he/she came from, except those who transferred to another household because of marriage.
4. Military personnel who live in the camp and do not visit their families at least 6 months.
5. All diplomats and their families.

Note that columns 3-01 to 3-05 and 3-09a to 3-09h should be accomplished for all members of the household.

Column 01 – Serial Number

This column is pre-numbered from 01 to 15 members. In case, there are more than 15 members in a household, use another loose sheet for Section F3 but be sure to continue the sequential numbering of members by re-numbering the line number starting with 16, 17 and so on. After interview, staple the loose sheet to the main questionnaire in order not to lose it.

Column 02 - Name of Household Members

Write down the name of household members according to the prescribed order of enumeration specified previously so that you do not miss any members of the household especially if there are several families living under one household. The prescribed order of enumeration is repeated below.

Household head
Spouse
Unmarried children from eldest to youngest
Married children and their related families from eldest to youngest
Parent
Parent-in-law
Other relatives
Servant
Other unrelated members including boarders

Column 03 - Relationship to Household Head

Enter the code number of relation to head for each household member. The coded items are pre-printed at the bottom of Section F3 for easy reference. The classifications are as follows:

Code 01 – Head
Code 02 – Spouse
Code 03 – Son/Daughter
Code 04 – Stepchild
Code 05 – Adopted child
Code 06 – Parent/Parent-in-law
Code 07 – Sibling/Brother/Sister
Code 08 – Grandchild
Code 09 – Nephew/Niece
Code 10 – Son-in-law/Daughter-in-law
Code 11 – Brother-in-law/Sister-in-law
Code 12 – Other relatives
Code 13 – Servant
Code 14 – Other non-relative including boarder

Column 04 – Sex

Enter the code for the sex of the members in this column; "1" for Male or "2" for Female.

Column 05 – Age as of last birthday

This refers to the age in completed years (as of last birthday) prior to the time of the census enumeration. Data on age may be collected by asking directly for it or by obtaining the person's date of birth. Age is sometimes difficult to collect. Be careful not to round off the age to multiple of 5s. If the age is 4.5 years old, enter the age 4 but not 5. If the age is less than "1", enter "00". If the age is 98 and above, enter "98". If age is unknown or cannot be determined by the respondent, enter "99".

Column 06 - Marital Status

This is the status of the household member in relation to the marriage laws or customs of the country. This should be asked for members 10 years old and over. Enter the code of the marital status of the members 10 years old and over. The codes are pre-printed at the bottom of Section F3. These are as follows:

Code 1 – Married/Living together
Code 2 – Divorced/Separated
Code 3 – Widowed
Code 4 – Never married/Never live with a partner

Column 07 – Highest Grade Completed

This column pertains to the highest education attained/completed by a person. These are useful in an agricultural census to examine the effects of education on the holding characteristics such as cropping systems and agricultural practices. In this agricultural census, educational attainment data should be collected for household members 5 years old and over. The codes for the highest grade completed are pre-printed at the bottom of Section F3.

Code 00 – Pre-school/Kindergarten
Code 01 – Class 1 completed
Code 02 – Class 2 completed
Code 03 – Class 3 completed
Code 04 – Class 4 completed
Code 05 – Class 5 completed
Code 06 – Class 6 completed
Code 07 – Class 7 completed
Code 08 – Class 8 completed
Code 09 – Class 9 completed
Code 10 – Class 10 completed
Code 11 – Class 11 completed
Code 12 – Class 12 completed without certificate completed
Code 13 – Lower education certificate (diploma)
Code 14 – Higher education certificate (baccalaureate)
Code 15 – Technical/Vocational pre-secondary diploma
Code 16 – Technical/Vocational post secondary diploma
Code 17 – College/University undergraduate
Code 18 – Bachelor degree (B.A.; BSc. etc.)
Code 19 – Master's degree (M.A., MSc., etc.)

Code 20 – Doctorate degree (Ph. D.)
Code 21 – Other, specify _____
Code 88 – no class completed/did not go to school
Code 98 – Don't know

Enter the code corresponding to the highest grade completed of each member. Note that the code should be reported in 2-digits. In case, if a household reported to have sent their members in a special school different from the regular schooling education set by the government, then such education should be reported under code 21 and this should be specified.

Column 08 - Is [Name] currently attending school?

This column determines the current attendance of each member in this school. Actually this question should be asked from members who are currently attending school from age 05 and over. The reason why there is no limit set in the upper age of the age group is that current education is being availed of/can be availed of even by the elder member of the household.

This question in column 08 is answerable by "Yes" (code 1) or "No" (code 2). If the answer is "Yes", enter code 1 in this column; otherwise, enter code 2.

If the age of the member is below 5 years old, enter dash (-) in column 8.

Column 09 - Does [Name] have any of the following health-related difficulties?

Health-related difficulties refer to impairments, activity limitations and participation restrictions. This column seeks to determine whether the member of the household has any health-related difficulties such as

3-09a. in seeing even if wearing glasses
3-09b. in hearing even if wearing hearing aid
3-09c. in walking or climbing steps
3-09d. in remembering or concentrating
3-09e. in self-care such as washing all over or dressing
3-09f. in using language with difficulty in communicating
3-09g. in learning the names of common objects or imitating or repeating something you say or do
3-09h. psychological/behavioral mental difficulty

The response to each of the difficulties above is "Yes" (code 1) or "No" (code 2). If the answer is "Yes", enter code 1 in each of these columns; otherwise, enter code 2. If the difficulty was due to old age, it should be included as "Yes".

In the succeeding columns 10-16, the questions on these should be asked for household members 5 years old and over.

Column 10 – Primary Economic Activity in the last 12 months

This column determines the primary economic activity of the member in the last 12 months, which is his/her main source of income and that the member is employed or with work in the last 12 months. There are 8 specified possible responses in this column.

Code 1 – agricultural activity in own holding
Code 2 – agricultural activity in other household's holding

Code 3 – fishing
Code 4 – forestry
Code 5 – Handicraft
Code 6 – Other industry such as manufacturing, etc.
Code 7 – Services such as <mark>providing agriculture services like hauling crops or harvesting or milling paddy</mark>, domestic housekeeping/cleaning, etc.
Code 8 – none

Among the 8 specified responses, code 8 should be used for those household members without economic activity or without work. Enter the code corresponding to the response for each member of the household; that is, if reported to have primary economic activity, the codes can be any from 1 to 7 or if without primary economic activity, enter code 8. <mark>If code 8 is the answer for any household member, enter a dash in columns 11 to 16.</mark>

Column 11 – Status of employment in the last 12 months

Status of employment determines the classification of employment of the member in his/her primary economic activity in the last 12 months. The member may be

Code 1 – paid employee
Code 2 – employer
Code 3 – own account/self-employed (without employees)
Code 4 – unpaid member working in own household economic activity

<mark>Enter in column 11 the code appropriate to the reply of the response concerning the employment status of each member reported to have primary economic activity.</mark>

<mark>Column 12a - How many days per week did you undertake this primary economic activity?</mark>

<mark>In column 12a, ask the number of days worked per week by each member with primary economic activity. The number of days worked per week may be the total weekdays (5 days) or may be all days in a week including Saturdays and Sundays which means 7 days. Enter the number of days per week in column 12a.</mark>

<mark>Column 12b - Total number of hours worked per day in the primary economic activity</mark>

This column asks for the total number of hours worked per day in the primary economic activity. Enter the response in column 12b.

Based from columns 12a and 12b, the total time spent <mark>per week</mark> by each member in his/her primary economic activity <mark>can</mark> be determined.

Column 13 – Secondary Economic Activity in the last 12 months

Some members of the household may have more than 1 economic activity. If this is the case, column 13 seeks to determine the secondary economic activity of the members. Note that a member cannot report a secondary economic activity if he/she does not have any primary economic activity.

The choices of response to this column are the same as that in column 10.

Code 1 – agricultural activity in own holding
Code 2 – agricultural activity in other household's holding
Code 3 – fishing
Code 4 – forestry

Code 5 – Handicraft
Code 6 – Other industry such as manufacturing, etc.
Code 7 – Services such as providing agriculture services like hauling crops or harvesting or milling paddy, domestic housekeeping/cleaning, etc.
Code 8 – none

Enter the code corresponding to the response for each member of the household; that is, if reported to have secondary economic activity, the codes can be any from 1 to 7 or if without secondary economic activity, enter code 8. Note that if code 1 is reported in column 10, the secondary economic activity should be reported other than code 1. If code 8 is entered in any of the household members, enter dash (-) in columns 14a and 14b.

Column 14a - How many days per week did you undertake this secondary economic activity?

This column determines whether the secondary economic activity of the member was undertaken on a full time or part time basis just like the reported primary economic activity. Ask for the number of days per week that the member undertakes his/her secondary economic activity. Enter the number in column 14a.

Column 14b - How many hours per day did you undertake your secondary economic activity?

Determine also the number of hours per day spent by the member in his/her secondary economic activity. Enter the number in column 14b.

Columns 14a and 14b will provide the data on the time used by members in their secondary economic activity.

Column 15 - *If code 1 in Q3-10 or Q3-13, what are the* specific tasks done in own agricultural holding in the last 12 months?

The specific tasks done in own agricultural holding in the last 12 months are very important to determine the contribution of each member in the agricultural activities inside their own agricultural holding. There are 8 tasks specified at the bottom of Section F3.

Code 1 – Land preparation
Code 2 – Planting/Transplanting
Code 3 – Care of crops
Code 4 – Harvesting/picking/threshing
Code 5 – Marketing of produce
Code 6 – Care of livestock/poultry
Code 7 – Care of aquaculture on the holding
Code 8 – Other, specify _____

Any member may be reporting more than 1 task; hence, all tasks in which the member had been involved in the last 12 months should be reported in this column. Multiple responses are accepted in this column. Enter in column 15 the code or codes (if multiple response) separated by comma. If the answer in both columns 10 and 13 in one or some of the members are NOT code 1, then enter a dash (-) in column 15.

Column 16 - Average number of hours per day spent in own agricultural holding in the last 12 months

The average number of hours per day spent in own agricultural holdings is very important to be able to determine the contribution of each member in own agricultural holding. This is also useful in comparing the time use spent by members in agriculture and non-agricultural economic activity. Enter the average number of hours per day in column 16.

If the answer in both columns 10 and 13 in one or some of the members are NOT code 1, then enter also a dash (-) in column 16.

Section F4. Other Farm Labor (not household member)

This section deals with other farm labor other than household member. This asks whether the agricultural holding hired outside labor during the last 12 months.

Q4.1 Did you hire (paid) farm labor (in crop cultivation and/or raising livestock/aquaculture) in the holding during the last 12 months?

The answer to this question is either "Yes" or "No". If the holder hired farm labor to work in the growing of crops and/or raising livestock/poultry and/or in aquaculture in the agricultural holding during the last 12 months, enter code 1 in the box provided; otherwise, enter code 2.

Q4.2 to Q4.5 are discussed in the following columns.

Column 1a - Sex of Farm Laborer and Frequency of Work on the Holding

Under this column, the sex of the farm laborer is specified as well as the frequency of work on the holding, that is, the type of hired workers is specified whether male full time or male part time or male occasional or female full time, etc. Nothing should be entered in this column.

Column 1b – Circle codes for the reported type of farm labor hired

The code(s) corresponding to the reported type of farm workers hired during the last 12 months should be circled in column 1b.

Column 2 – Number of hired workers

Enter in this column the number of hired workers specified in column 1a. If none was hired for a specific kind of worker in column 1, enter dash (-).

Columns 3a, 3b and 3c – Number of workers per hours worked per week

Of the total number of hired workers reported in column 2 pertaining to the kind of worker in column 1, enter the number of workers according to the number of hours worked per week. The number of hours worked per week is specified in three columns: column 3a – 21 hours or less; column 3b – 22-49 hours; and, column 3c – 50 hours and over. If one or two of these columns have no report, enter dash (-). If there is a report in columns 1a, 1b and 2, there should be answers in any of these 3 columns. If one of these columns has no answer, enter "0".

Column 4 – Form of Payment

This column provides the form of payment given to the hired farm workers. There are four choices that can be possible reply to this column.

Code 1 – in cash
Code 2 – in terms of farm produce
Code 3 – exchange labor
Code 4 – other forms of in-kind payment

Enter the code appropriate to the answer of the respondent for each type of farm labor reported in columns 1a and 1b.

Q4.6 Did you use agricultural service contractor other than hiring farm laborers in this holding in the last 12 months?

This question asks the use of agricultural service contractor. The agricultural household might have use the agricultural service contractor instead of hiring farm laborer or might have used both agricultural services and hiring of farm labor. If the answer to this question is Yes, enter code 1 in the box provided. If the answer is No, enter code 2 in the box provided for this question.

Section F5. Selected Economic Activities

This section explains the other economic activities where any member of the household engaged in own account during the last 12 months. Other economic activities included in this section are capture fishing, forestry-related activities and handicraft. The other non-agricultural economic activities are excluded in this section.

Q5.1 Did your household engage in any own-account fishing activity (any catching of fish and aquatic products) in the inland or marine water during the last 12 months?

Own account fishing refers to the catching and/or gathering of fish and other aquatic products in the inland or marine waters or along the shore during the last 12 months using fishing gear with or without boat. If the answer to this question is Yes, enter code 1 in the box provided and proceed to ask Q5.2; otherwise, enter code 2 and skip to Q5.7.

Q5.1a Who was the member mainly responsible for the own-account fishing activity in the last 12 months?

Ask from the respondent the name, sex, age and relation to head of the household member mainly responsible in operating the own-account fishing activity in the last 12 months. Copy such information from Section F3 in columns 1, 4, 5 and 3, respectively, and enter these in the corresponding provided spaces under this question.

Q5.2 What was the main purpose of fishing of any aquatic products in the last 12 months?

The main purpose being referred to in this question is either mainly for home consumption (code 1) or mainly for sale (code 2). Enter the code according to the response of the person being interviewed in the box provided.

Q5.3 Did you use fishing gear in the last 12 months?

Fishing gear is an aid or tool for the fishermen or fishing operator to catch fish and other aquatic products in inland or marine water. If the answer to this question is Yes, enter code 1 in the box provided and proceed to ask Q5.4; otherwise, enter code 2 and skip to Q5.5.

Q5.4 What kind of fishing gear did you use in the last 12 months?

This question asks for the kind of fishing gear used in the last 12 months. The household may have used more than 1 kind of fishing gear. If this is the case, enter code 1 in the box provided for every fishing gear used; if not used, enter code 2 corresponding to the fishing gear specified in this question.

1 – hand gear
2 – cast net
3 – fishing rod
4 – small trap
5 – lift net/push net
6 – gill net
7 – large fixed trap
8 – other, specify

Q5.5 Did you use fishing boat?

The fishing boat is also necessary in order to catch fish in inland or marine water. Without the boat, fishing can only mean gathering aquatic products (such as seashells, etc.) near or along the shore.

If the answer to this question is Yes, enter code 1 in the box provided and proceed to ask Q5.6; otherwise, enter code 2 and skip to Q5.7

Q5.6 What kind of fishing boat did you use?

The kind of boat specified in this question is as follows:

1 – traditional boat without motor
2 – boat with motor
3 – other, specify

If the household used boat in its fishing operation, ask for the kind of boat used and enter code 1 (if used) in any of the three types specified in this question. If not used, enter code 2 corresponding to the type of boat.

Q5.7 Did your household engage in any own-account forestry-related activities in the last 12 months?

Forestry-related activities are engaged by the agricultural households merely for home use or for additional source of income or food alternative. If the answer to this question is Yes, enter code 1 in the box provided and proceed to ask Q5.8; otherwise, enter code 2 and skip to Q5.9.

Q5.8 What type of own-account forestry-related activities did your household engage in during the last 12 months?

There are 7 types of forestry-related activities specified in this question. These are

1 – gathering firewood/cutting bamboo
2 – charcoal making
3 – cutting sandalwood/timber
4 – gathering wild fruits/food
5 – collecting medicinal plants
6 – hunting wildlife/animals
7 – other forestry-related activities, specify _____

If the household was engaged in each or any of these forestry-related activities during the last 12 months, enter code 1 in each of the boxes provided. If not engaged, enter code 2 in the box provided.

Q5.9 Did your household engage in any handicraft activity in own account during the last 12 months?

Handicraft is another activity specified in the other economic activities of the agricultural household. If the answer to this question is Yes, enter code 1 in the box provided and proceed to ask Q5.10; otherwise, enter code 2 and skip to Q5.11.

Q5.10 What type of handicraft activities did your household engage in during the last 12 months?

The four kinds of handicraft activities mentioned in this question are as follows:

1 – food processing/manufacturing
2 – weaving (basket, mats, etc.)
3 – Semi-finished/Finished products (like making thread, clothing material)
4 – other, specify _____

If the agricultural household is engaged in all or some of these activities, enter code 1 in each box provided corresponding to the activity. If the household is not engaged in any of the activities, enter code 2 in the corresponding box provided.

Q5.11 Did your household engage in any other own account small business or even in micro/small/medium enterprises (not in agriculture)?

Other own account small business or micro/small/medium enterprises do not include all the previous activities mentioned in any of the questions Q1 to Q10. If the answer to this question is Yes, enter code 1 in the box provided and proceed to ask Q5.112; otherwise, enter code 2 and skip to Section F6.

Q5.12 What kind of small business or micro/small/medium enterprises (not in agriculture) did you engage in?

The kind of micro/small/medium business/enterprises specified in this question are the following:

1 – Manufacturing such as brick/tile making; garment. etc.
2 – Trading business such as selling phone cards, etc.
3 – Services like micro lending, etc.
4 – Food business like processing, preserving, cooking and selling, etc.
5 – other, specify

If the agricultural household is engaged in any of these activities, enter code 1 in each box provided corresponding to the activity. If the household is not engaged in some of these activities, enter code 2 in the corresponding box provided.

Section F6. Food Security

Food security refers to both physical and economic access to food that meets people's dietary needs as well as their food preferences (as defined by WHO). This section helps determine how food secured are the agricultural households in the country.

Q6.1 Did your household consume any one of the following basic food items during the last 7 days?

To answer this question, the following basic food items were listed in column 1a or Q6.1a.

1 – Rice & other cereals
2 – Potato & other root crops
3 – Edible beans and pulses
4 – Vegetables (leafy, fruit-bearing and other)
5 – Fruits
6 – Edible nuts
7 – Meat and meat products (such as egg, etc.)
8 - Fish & other seafood

In each basic food item, Q6.1b or column 1b asks whether this was consumed in the last 7 days. If the answer is "Yes", enter code 1 in the box/space provided corresponding to the food item. If the answer is "No", enter code 2.

If the answer is "Yes" in col. 1b, then in column 1c (Q6.1c), ask and enter the number of days the basic food item was eaten in the last 7 days.

Based on the responses in columns 1b and 1c, ask for the source of the basic food items. This source may be included in the following:

1 - own produced (from agriculture, fishing and forestry)
2 – received as gifts
3 – bought these foods
4 – traded goods or services
5 – borrowed
6 – exchange of labor for food
7 – exchange of item for food
8 – food aid from charitable organizations
9 – other sources

In answering this question, specify the main source and the secondary source. Enter the code for the main source in column 1d and the secondary source in column 1e.

Q6.2a Was there anytime in the last 12 months that your household experienced food shortage?

If the answer to this question is Yes, enter code 1 in the box provided and proceed to ask Q6.2b; otherwise, enter code 2 and skip to Q6.6.

Q6.2b How many times in the last 12 months did you experience food shortage?

The response to this question can be taken in any of the folowing:

Code 1 – one month only
Code 2 – 2-3 months
Code 3 – more than 3 months

Enter the code appropriate to the reply of the respondent in the box provided.

This question asks for the reason for the occurrence of the food shortage in anytime of the last 12 months or even in the last month. This question accepts multiple responses. The response(s) may be any of the following:

1 – low production of such food due to shortage of capital and less land area
2 – low production due to illness/disability of the holder
3 – crop loss due to heavy rain or drought or calamities or attack of pest
4 – very costly and cannot afford to eat more frequently
5 – limited food budget due to loss of job
6 – other reasons, specify_____

If each of these specified reasons is provided by the respondent, enter code 1 in the corresponding box provided. For those that will not be mentioned as reason(s), enter code 2 in the corresponding box provided.

If the answer to this question is Yes, enter code 1 in the box provided and proceed to ask Q6.6; otherwise, enter code 2 and go to next questionnaire or to next household.

Ask for the steps taken or remedies adopted in order to solve food shortage in anytime of the past 12 months or even in the last month. Such steps may be in any of the following:

01 – sold household assets (e.g. blankets, utensils, furniture, TV) to be able to purchase/obtain food
02 – sold agricultural or other productive assets (e.g. equipment, tools, seeds, other inputs, transport assets) to be able to purchase/obtain food
03 – sold non-food crops/some livestock to be able to purchase/obtain food
04 – sold or rented out land to be able to purchase/obtain food
05 – bartered some goods such as livestock, handicrafts, etc. to be able to purchase/obtain food
06 – sent some household members to look for work or other sources of income to buy food
07 – asked assistance from relatives within the country/living abroad to be able to purchase/obtain food
08 – accepted assistance from charitable institutions to have food
09 – borrowed food and/or money on credit or get an advance on next harvest or labor to be able to purchase/obtain food
10 – changed food routine to alternative food items
11 – other steps, specify _____

If each of these specified steps has been mentioned by the respondent, enter code 1 in the corresponding box provided. For those that will not be mentioned as step(s) taken, enter code 2 in the corresponding box provided.

Q6.6 In the last month, did your household experience any of the following:

1 – not able to eat the kind of food you preferred (like high quality rice or meat)
2 – have to eat just a few types of food (like only rice and green vegetables)
3 – have to eat some foods that you really did not want to eat (like the poisonous wild tuber or poor quality of fish/meat)
4 – have to eat less in any main meals
5 – have to eat fewer meals in a day
6 – no food at all to eat in your household and there was no way of getting more by buying/trading or from the garden or field or from storage

Ask each of these 6 situations whether experiences by the agricultural households in the last month. If experienced by the household, ask and enter code 1 in the space provided if experienced rarely or once or twice in the last month; or enter code 2 if experienced sometimes or 3-10 times in the last month; or enter code 3 if experienced often or more than 10 times in the last month; or if not experienced, enter code 4.

CHAPTER 10
Form G – Self-Administered Village Questionnaire

Form G is one of the 7 questionnaires to be accomplished in the NCAC 2013. However, this is designed to be a self-administered questionnaire. This is to be answered by the village leader himself or herself. This is to be distributed in all villages in every commune of every province/municipality. This will provide data on the different physical attributes of the village such as topography, climate and type of soil as well as its available socio-economic infrastructures such as school, hospital, transportation, agricultural machineries, economic activities, etc.

As a team supervisor, you should distribute this questionnaire to leader of each village under your jurisdiction. Before you leave the place of the village leader, ask him whether he or she can read the questionnaire and write the responses in the spaces or boxes for all questions. If the village leader knows how to read and write, let him/her familiarize and glance first all the questions in Form G. Then ask him/her if there are questions that he/she cannot understand. Explain to him/her what to do with those questions that seem to be difficult for him/her to respond.

If the village leader cannot read and write, ask him/her to delegate to one of the village officials that can answer the questions in Form G. Explain all important information/procedures in answering Form G to the person who will be given the responsibility in answering such questionnaire.

Tell the village leader or the person answering Form G that you will be back the following day to collect the filled up Form G.

Section 1. Important Procedures to be Emphasized

The following procedures should be emphasized to the village leader or to the person that will answer Form G.

1. Name, sex and age of the village leader should be entered in the spaces/boxes provided
2. Name, sex and age of the respondent (whether the village leader or another person is answering) should be entered in the spaces/boxes provided.
3. All data items in most of the questions with Yes or No choices should be answered by circling the answer in each corresponding box. For example,

	តើនៅភូមិរបស់អ្នកមានមធ្យោបាយទំនាក់ទំនងអ្វីខ្លះ? **Do** the different communication facilities **below** available in your village?	គូសរង្វង់លេខក្នុងខាងក្រោម *Circle each answer below*	
10. មធ្យោបាយទំនាក់ទំនង Communication Facilities	1 – ប្រៃសណីយ៍ (កន្លែងផ្ញើសំបុត្រ)post office	1 - បាទ Yes	2 - ទេ No
	2 – ទូរលេខ telegraph	1 - បាទ Yes	2 - ទេ No
	3 – អ៊ីនធើណែត internet	1 - បាទ Yes	2 - ទេ No
	4 – ទូរស័ព្ទយឺត telephone line	1 - បាទ Yes	2 - ទេ No
	5 – ទូរស័ព្ទចល័ត mobile phone	1 - បាទ Yes	2 - ទេ No
	6 – ផ្សេងទៀតសូមបញ្ជាក់ other, specify	1 - បាទ Yes	2 - ទេ No

4. Response to the question with different coded choices but needed 1 coded answer should be entered in the box provided. For example,

	ប្រភេទទំរង់ភូមិសាស្ត្រ *នុះក្នុងទំរង់ភូមិសាស្ត្រដែលលទំនង់នៃភូមិរបស់អ្នកក្នុងប្រអប់ទំនេះ:*
	<mark>What is the type of topographical feature in your village?</mark> *Enter the code for the main topographical feature of your village in the box provided.*

2. លក្ខណៈទំបង់តំបន់ភូមិសាស្ត្រ Main Topographical Feature	1 – រាបទំនាប Plain	4 – ភ្នំ ខ្ពង់រាប/Mountainous/Hilly	4
	2 – មាត់សមុទ្រ Coastal	5 – ផ្សេងទៀតបញ្ជាក់ Other topographical feature, specify_____	
	3 – ជុំវិញបឹងទន្លេសាប Around Tonle sap		

5. Response to the question that needed exact answer should be entered in the box provided. For example,

	តើនៅភូមិរបស់អ្នកមានប្រភេទសាលារៀនអ្វីខ្លះដែលអាចមាន? Which type of school exist and available in your village?	គូសរង្វង់លេខក្នុងចាងក្រោម *Circle each answer below*		បើមានសូមធុះចំនួនសាលា , If Yes, Number of School
9. ភាពមានសាលារៀន Available School	1 – បឋមសិក្សា primary	1 - បាទ Yes	2 - ទេ No	2
	2 – មធ្យមសិក្សា middle school	1 - បាទ Yes	2 - ទេ No	1
	3 – វិទ្យាល័យ high school	1 - បាទ Yes	2 - ទេ No	1
	4 – មហាវិទ្យាល័យ សកលវិទ្យាល័យ/college/university	1 - បាទ Yes	2 - ទេ No	-
	5 – ផ្សេងទៀត សូមបញ្ជាក់ ,other, specify	1 - បាទ Yes	2 - ទេ No	-

As you supervise the work of each enumerator each day, pass by the village leader's place to determine whether the village questionnaire has been filled up. If filled up, check all questions whether these have been answered and the responses have been recorded properly. If the questionnaire has been answered correctly, thank the village leader for his/her responses and cooperation for the census of agriculture. However, if the questionnaire has not been filled up or if filled up but wrongly recorded the responses, assist him/her in filling up Form G.

Annex 1
Sampling Design for the NCAC I Supplementary Module

Introduction

The NCAC 2013 is composed of two modules, Core Module and Supplementary Module. The Core Module is a complete listing of households and interview of all households with agricultural holding(s) in all villages in every commune of every district of each municipality/province. This will be conducted in April 17, 2013 to May 31, 2013. Hence, this will be called the Core Module Listing of Households and Holdings in Cambodia (CMLHHC). **Agricultural holdings** in Cambodia is an economic unit under single management comprising of at least 2 large livestock and/or at least 3 small livestock and/or at least 50 poultry of any kind and/or land with a size of at least 300 square meters (or 0.03 ha. or 3a) used wholly or partly for agricultural production purposes, regardless of title, legal form or size.

In the NCAC 2013 CMLHHC, there will be different activities to be conducted in each village: (a) complete listing of households residing in the villages to identify those households with agricultural holdings using Form A – Listing of Households; (b) interview of the households with agricultural holdings using Form B – Basic Information on Agricultural Holdings; (c) distributing Form G (self-administered village questionnaire) to village leaders and collecting such accomplished/completed Form G from these leaders; and, (d) updating important features/landmarks on EA map and plotting the exact location of the listed households on the EA map.

The Form A will be used in selecting the sample households with agricultural holding(s) for the second phase of the NCAC 2013, which is called the Supplementary Module Interview of Sample Agricultural Households (SMISAH). The SMISAH will be undertaken from June 24, 2013 to July 23, 2013. A household in Cambodia is considered agricultural household if it engaged in any agricultural activity such as crop cultivation and/or raising livestock/poultry, conducted in at least 300 square meters of land (or 0.03 ha. or 3a) during the past 12 months reference period.

In the SMISAH, the following census activities will be conducted in each commune: (a) interview of sample households engaged in growing of crop(s) (Using Form C); and/or raising livestock/poultry (using Form D); and collection of the socio-economic characteristics of households (using Form F)); and, (b) further interview of sample households if these are also engaged in aquaculture (using Form E).

Sample Selection

This census will use stratified systematic sampling using one-stage. The two strata that will be used are households with large agricultural holdings and households with small agricultural holdings. All large agricultural holdings will be interviewed while 5 percent of small agricultural holdings will be selected using systematic sampling. Large agricultural holdings are defined in two ways:

1. Households with at least 10 hectares and over used wholly or partly for agricultural activities will be considered to have large agricultural holdings
2. Households with at least 10 cattle/buffaloes/other large livestock and/or at least 20 pigs/goats/other small livestock and/or at least 100 poultry will also be considered to have large agricultural holdings.

Hence, those households cultivating agricultural lands between 0.03 ha. to 9.99 hectares and/or with large livestock ranging from 2 to 9 and/or with 3-19 small livestock and/or with 25-99 poultry will be considered to have small agricultural holdings. These households with small agricultural holdings will be subjected to systematic sampling. The sampling rate will be 5% of the total households with small agricultural holdings. The sample selection will be done at the commune level, which will be the domain for this census. Hence, the lowest administrative unit in which all estimated results from SMISAH will be produced is at the commune level.

The sampling procedures in choosing the sample households with agricultural holdings are as follows:

1. In each commune, number the households with small agricultural holdings consecutively from 1 to the last number.
2. Add all these households with small agricultural holdings. The total should correspond to the last number provided in the last household in the commune.
3. Then compute 5% of these total households with small agricultural holdings and these will be the total sample households with small agricultural holdings for that commune. For example, the total households with small agricultural holdings are equal to 550. 5% of 550 are 27.5 or when rounded off, it will be 28 sample households.
4. Divide the total households with small agricultural holdings by the number of sample households with small agricultural holdings. This will be the sampling interval (SI). For example, 550/28 = 19.6 or approximately 20.
5. Get a random start (RS) between 1 and the sampling interval. For example, if the sampling interval is 20; a random start between 1 and 20 should be selected. Let us say 9 is the random start.
6. If between 1 and the sampling interval, a random number has been selected, the numbers of the sample households in the commune are determined using the following series of formulas starting at the random start: RS; RS+SI; RS+2SI; RS+3SI; RS+4SI; RS+5SI; …; RS+(n-1)SI. For example, if 9 is the random start, #9 household will be the first sample; then followed by 9+20=29 will be the second sample household; 29+20=49 will be the 3rd sample household; 49+20=69; 69+20=89; 89+20=109; 109+20=129; 129+20=149; 149+20=169; 169+20=189; 189+20=209; 209+20=229; 229+20=249; 249+20=269; 269+20=289; 289+20=309; 309+20=329; 329+20=349; 349+20=369; 369+20=389; 389+20=409; 409+20=429; 429+20=449; 449+20=469; 469+20=489; 489+20=509; 509+20=429; 429+20=449. In summary, the sample households with small agricultural holdings in the given example will be: 9; 29; 49; 69; 89; 109; 129; 149; 169; 189; 209; 229; 249; 269; 289; 309; 329; 349; 369; 389; 409; 429; 449; 469; 489; 509; 529; 549.

Sample selection will be done in the provincial office of the NIS. All NIS/MAFF central census staff acting as the overall supervisor(s) in their respective provinces will be the lead person to select the sample households with small agricultural holdings.

Tentatively, the estimation formula in computing the estimated characteristics of the holdings at the commune level will be:

$$Y_i = Y_1 + Y_2,$$

where Y_i pertains to any total characteristic of the agricultural holdings or agricultural households in the commune; Y_1 is the characteristics of all large agricultural holdings or households with agricultural holdings in the commune; and, Y_2 is the estimated characteristics of small agricultural holdings or household with small agricultural holdings in each commune.

$$Y_1 = \sum_{j=1}^{m} y_j,$$

where Y_j is any total characteristics of all large agricultural holdings or all households with large agricultural holdings in the commune.

$$Y_2 = N/n \sum_{k=1}^{n} y_k,$$

where y_k is any total characteristics of the sample small agricultural holdings or sample households with small agricultural holdings in the commune; N is the total number of agricultural holdings in the commune; and, n is the 5% sample small agricultural holdings or sample households with small agricultural holdings in the commune.

Annex 1
Sampling Design for the NCAC I Supplementary Module

Introduction

The NCAC 2013 is composed of two modules, Core Module and Supplementary Module. The Core Module is a complete listing of households and interview of all households with agricultural holding(s) in all villages in every commune of every district of each municipality/province. This will be conducted in April 17, 2013 to May 31, 2013. Hence, this will be called the Core Module Listing of Households and Holdings in Cambodia (CMLHHC). **Agricultural holdings** in Cambodia is an economic unit under single management comprising of at least 2 large livestock and/or at least 3 small livestock and/or at least 50 poultry of any kind and/or land with a size of at least 300 square meters (or 0.03 ha. or 3a) used wholly or partly for agricultural production purposes, regardless of title, legal form or size.

In the NCAC 2013 CMLHHC, there will be different activities to be conducted in each village: (a) complete listing of households residing in the villages to identify those households with agricultural holdings using Form A – Listing of Households; (b) interview of the households with agricultural holdings using Form B – Basic Information on Agricultural Holdings; (c) distributing Form G (self-administered village questionnaire) to village leaders and collecting such accomplished/completed Form G from these leaders; and, (d) updating important features/landmarks on EA map and plotting the exact location of the listed households on the EA map.

The Form A will be used in selecting the sample households with agricultural holding(s) for the second phase of the NCAC 2013, which is called the Supplementary Module Interview of Sample Agricultural Households (SMISAH). The SMISAH will be undertaken from June 24, 2013 to July 23, 2013. A household in Cambodia is considered agricultural household if it engaged in any agricultural activity such as crop cultivation and/or raising livestock/poultry, conducted in at least 300 square meters of land (or 0.03 ha. or 3a) during the past 12 months reference period.

In the SMISAH, the following census activities will be conducted in each commune: (a) interview of sample households engaged in growing of crop(s) (Using Form C); and/or raising livestock/poultry (using Form D); and collection of the socio-economic characteristics of households (using Form F)); and, (b) further interview of sample households if these are also engaged in aquaculture (using Form E).

Sample Selection

This census will use stratified systematic sampling using one-stage. The two strata that will be used are households with large agricultural holdings and households with small agricultural holdings. All large agricultural holdings will be interviewed while 5 percent of small agricultural holdings will be selected using systematic sampling. Large agricultural holdings are defined in two ways:

1. Households with at least 10 hectares and over used wholly or partly for agricultural activities will be considered to have large agricultural holdings
2. Households with at least 10 cattle/buffaloes/other large livestock and/or at least 20 pigs/goats/other small livestock and/or at least 100 poultry will also be considered to have large agricultural holdings.

Hence, those households cultivating agricultural lands between 0.03 ha. to 9.99 hectares and/or with large livestock ranging from 2 to 9 and/or with 3-19 small livestock and/or with 25-99 poultry will be considered to have small agricultural holdings. These households with small agricultural holdings will be subjected to systematic sampling. The sampling rate will be 5% of the total households with small agricultural holdings. The sample selection will be done at the commune level, which will be the domain for this census. Hence, the lowest administrative unit in which all estimated results from SMISAH will be produced is at the commune level.

The sampling procedures in choosing the sample households with agricultural holdings are as follows:

1. In each commune, number the households with small agricultural holdings consecutively from 1 to the last number.
2. Add all these households with small agricultural holdings. The total should correspond to the last number provided in the last household in the commune.
3. Then compute 5% of these total households with small agricultural holdings and these will be the total sample households with small agricultural holdings for that commune. For example, the total households with small agricultural holdings are equal to 550. 5% of 550 are 27.5 or when rounded off, it will be 28 sample households.
4. Divide the total households with small agricultural holdings by the number of sample households with small agricultural holdings. This will be the sampling interval (SI). For example, 550/28 = 19.6 or approximately 20.
5. Get a random start (RS) between 1 and the sampling interval. For example, if the sampling interval is 20; a random start between 1 and 20 should be selected. Let us say 9 is the random start.
6. If between 1 and the sampling interval, a random number has been selected, the numbers of the sample households in the commune are determined using the following series of formulas starting at the random start: RS; RS+SI; RS+2SI; RS+3SI; RS+4SI; RS+5SI; …; RS+(n-1)SI. For example, if 9 is the random start, #9 household will be the first sample; then followed by 9+20=29 will be the second sample household; 29+20=49 will be the 3rd sample household; 49+20=69; 69+20=89; 89+20=109; 109+20=129; 129+20=149; 149+20=169; 169+20=189; 189+20=209; 209+20=229; 229+20=249; 249+20=269; 269+20=289; 289+20=309; 309+20=329; 329+20=349; 349+20=369; 369+20=389; 389+20=409; 409+20=429; 429+20=449; 449+20=469; 469+20=489; 489+20=509; 509+20=429; 429+20=449. In summary, the sample households with small agricultural holdings in the given example will be: 9; 29; 49; 69; 89; 109; 129; 149; 169; 189; 209; 229; 249; 269; 289; 309; 329; 349; 369; 389; 409; 429; 449; 469; 489; 509; 529; 549.

Sample selection will be done in the provincial office of the NIS. All NIS/MAFF central census staff acting as the overall supervisor(s) in their respective provinces will be the lead person to select the sample households with small agricultural holdings.

Tentatively, the estimation formula in computing the estimated characteristics of the holdings at the commune level will be:

$$Y_i = Y_1 + Y_2,$$

where Y_i pertains to any total characteristic of the agricultural holdings or agricultural households in the commune; Y_1 is the characteristics of all large agricultural holdings or households with agricultural holdings in the commune; and, Y_2 is the estimated characteristics of small agricultural holdings or household with small agricultural holdings in each commune.

$$Y_1 = \sum_{j=1}^{m} y_j,$$

where Y_j is any total characteristics of all large agricultural holdings or all households with large agricultural holdings in the commune.

$$Y_2 = N/n \sum_{k=1}^{n} y_k,$$

where y_k is any total characteristics of the sample small agricultural holdings or sample households with small agricultural holdings in the commune; N is the total number of agricultural holdings in the commune; and, n is the 5% sample small agricultural holdings or sample households with small agricultural holdings in the commune.

Annex 2
NCAC 2013 Sticker

Ministry of Planning and
Ministry of Agriculture, Forestry and Fisheries
2013 Census of Agriculture in Cambodia

Province Name:

Village Name: EA Number:

Household Serial Number
in the Listing Form (Form A)

Do not prevent posting nor deface this notice until December 31, 2013

Annex 3 – Codes for Agricultural Crops in Cambodia

A. Codes for Temporary Crops (Section B7 of Form B and Sections C3 of Form C)

Code	Crop	Code	Crop	Code	Crop	Code	Crop
	ត្រាប់ធញ្ញជាតិប្រមូលបាន **Cereals harvested for grain**		ដំណាំគ្រឿងទេស ក្រអូបនិងឱសថ **Spices, condiments, aromatic and medicinal plants**	512	ផ្ទីរដុង Amaranth		ពពួកសណ្ដែកបៃតង **Leguminous green vegetables**
101	ស្រូវធម្មតា Non-aromatic paddy	421	ដើមម្ទេម Caraway	513	ផ្ទីរបណ្ដា Pig weed	561	សណ្ដែកបាវាំង Peas/Snow Peas
102	ស្រូវក្រអូប Aromatic paddy	422	ជីអង្គាមឬនាងរង Mint	514	បន្លែយកស្លឹកឬទងផ្សេងៗទៀត Other leafy or stem vegetables	562	សណ្ដែកត្រ Yard long bean
103	ស្រូវដំណើប Sticky paddy	423	គ្រាប់ការី Coriander		បន្លែមានផ្លែ **Fruit-bearing vegetables**	563	ពពួកសណ្ដែកបៃតងផ្សេងៗ Other leguminous green vegetables
104	ស្ពៀតពោត Maize (young corn)	424	ដើមជន្លង់ Sweet basil	521	ម្ទេស Chili		បន្លែផ្សេងៗ **Other vegetables**
105	ពោត Maize (white/Yellow/Violet)	425	ស្លីកម្លូ Betel leaf	522	ត្រសក់ Cucumber	571	ស្ពៃផ្កាខាត់ណា Cauliflower
106	គ្រាប់ស្ពួយ Sorghum	426	ដើមស្លិកគ្រៃ Lemon grass	523	ត្រសក់ស្រូវ Muskmelon	572	ស្ពៃផ្កាឃរ៉ូបៃតង Broccoli
107	គ្រាប់ធញ្ញជាតិផ្សេងៗ Other cereal harvested for grain	427	ដើមរមៀត Turmeric	524	គ្រប់ Egg plant	573	ផ្កាក់ផ្ការ Water hyacinth flower
	ដំណាំយកមើម **Tubers, Root and Bulk Crops**	428	ស្លីកកាឆាយ Chive	525	គ្រប់ពុតញាយ Common Asiatic Wood	574	ទំពាំងបារាំង Asparagus
201	ដំឡូងបារាំង Potato	429	ជីវ៉ាន់ស៊ុយ Parsley	526	ឃ្លោក Gourd	575	ទំពាំង Bamboo shoot
202	ដំឡូងឆ្វា Sweet potato	430	គ្រឿងទេសផ្សេងៗ Other spices	527	ឃ្ញី Pumpkin	576	គ្រយាងចេក Banana flower bud
203	ដំឡូងមី Cassava		ឧស្សាហកម្មផ្សេងៗ **Industrial Crops**	528	ឃ្លោកខៀវ Green gourd	577	បន្លែផ្សេងៗ Other vegetables
204	គ្រៅ Taro/Trao	441	អំពៅ Sugarcane	529	ម្ទេសផ្អែក Sweet pepper/ Capsicum/Bell pepper		ដំណាំសាកវប្បកម្មពិសេស **Special horticultural cultivation**
205	សាគូ Arrowroot	442	ថ្នាំជក់ខ្លាំង Tobacco strong	530	ប៉េងប៉ោះ Tomato	601	ផ្សិត Mushroom
206	ដំឡូងលាមមាន់/ដុង Yam potato	443	ថ្នាំកាតម Tobacco light	531	ម្រះ Bitter melon	602	ដំណាំសាកវប្បកម្មផ្សេងៗ Other horticultural crops
207	ដំឡូងដៃខ្លា the tiger's claw	444	ដំណាំឧស្សាហកម្មផ្សេងៗ Other industrial crops	532	ឪឡឹក Watermelon		ដំណាំចំណីសត្វ **Fodder Crops (for grazing or cut for hay, green feed or silage)**

Annex 3 – Codes for Agricultural Crops in Cambodia (continuation)

Code	Crop			Code	Crop	Code	Crop
208	ដំឡូងបាស Tuberous potato		ដំណាំយកកសរ៉ៃសដំបោះ **Fiber crops**	533	ពពាយជ្រង Wing bean	701	ដំណាំដុះជាចំបើងសម្រាប់ចំណីគោ-ក្របី Fodder Crops

209	ដំឡូងដួង Wangled yam	451	កម្បាស Cotton	534	ពោតបារាំង Bhendii	702	ស្មៅចំណីគោ King grass
210	ដំណាំមើមផ្សេងៗ Other tubers, root and bulk crops	452	ក្រចៅ Jute	535	ននោងកាប់ Snake gourd		
ដំណាំសណ្តែកយកគ្រាប់សំខាន់ៗ **Leguminous (Grain) Plants**		453	គរ Kapok	536	ននាង Ivy gourd		
301	សណ្តែកអង្គុយ Cowpea	454	ដើមខ្វែរ Nettle plant	537	ត្រឡាច Squash/Winter squash		
302	សណ្តែកបាយ Mungbean	455	ដំណាំសម្រាប់ធ្វើអំបោះផ្សេងៗ Other fiber crops	538	បន្លែមានផ្លែផ្សេងទៀត Other fruit-bearing vegetables		
303	សណ្តែកក្រហម Scybean/Red kidney bean	បន្លែយកខ្ទង ឬស្លឹក **Leafy or stem vegetables**		ដំណាំយកមើម **Root, bulb and tuberous vegetables**			
304	សណ្តែកអង្កែ Pigeon pea	501	ត្រកួន Trakun/Water convolvulus	541	ការ៉ុត Carrot		
305	ពពាយស្លឹក Lablab/Hyacinth bean	502	ស្ពៃក្តោប Cabbage	542	ឆៃថាវ Sugar beet		
306	ដំណាំដាំសម្រាប់យកគ្រាប់ Other leguminous plants	503	ស្ពៃស Lettuce/all types	543	រ៉ាឌី Radish		
ដំណាំយកប្រេង **Oilseed crops**		504	ខ្ទឹមស្លឹក Green garlic	544	ស្ពៃមើម Turnip		
401	សណ្តែកដី Ground nut (peanut)	505	ខ្ទឹមដើម Scallion (spring onion)	545	ខ្ទឹមក្រហម Shallot		
402	សណ្តែកសៀង Soybean	506	ស្ពៃក្តោបចិន Celery	546	ខ្ទឹមបារាំង Onion		
403	ល្ង Sesame	507	ព្រលិត Water lily	547	ខ្ទឹមស Garlic, white		
404	ល្ហុងខ្លង Castor bean	508	ស្ពៃខ្ទៅ Spinach	548	ខ្ញី Ginger		
405	គ្រាប់ឈូករតន៍ ឬផ្កាឈូករតន៍ Sunflower	509	ក្រសាំងទាវ Watercress	549	ដំណាំយកមើមផ្សេងៗ Other root, bulb and tuberous vegetables		
406	ដើមកប្បាស Cottonseed	510	ស្ពៃក្រញាញ់ Chinese kale				
407	ដំណាំយកប្រេងផ្សេងៗ Other oilseed crops	511	ជន្លល់ភ្នំ Clover				

Annex 3 – Codes for Agricultural Crops in Cambodia (continuation)

B. CODES FOR PERMANENT CROPS (Section B8 of Form B and Sections C4 of Form C)

កូរក្រូច	**Citrus fruit**	829	ធូរ៉ែន Durian	864	គ្រាប់ដែលអាចបរិភោគបានផ្សេងៗ Other edible nuts	947	ផ្កាប៉ីក្របាម Plumeria
801	ក្រចពោធិសាត់ Oranges	830	ទឹកដោះគោ Milk fruit	ដំណាំភេសជ្ជៈ **Beverage Crops**		948	ផ្កាម Anthurium
802	ក្រចហ្ស៊ិច Tangerines	831	ឈូក Lotus fruit	901	កាហ្វេ Coffee	949	ផ្កាឈូករ័ត Daisy
803	ក្រចថ្លុង Grapefruit/ Pomelo	832	ជំពូ Rose apple	902	តែ Tea	950	ផ្កាឈីម្មួយរបប Chrysanthemum

804	ក្រូចឆ្មារ Lime/lemon	833	ម៉ាក់ប្រាង Marian plum	903	កាកាវ Cacao	951	ដំណាំផ្កាផ្សេងៗ Other flowers
805	ក្រូចសើច Kafir lime	834	ម្កាក់ Hog plum	904	ដំណាំមាសជូរៈផ្សេងៗ Other beverage crops	**ដំណាំយកការដើមលម្អ Ornamental Plants**	
806	ផ្សេក្រូចផ្សេងៗ Other citrus fruits	835	ព្រីង Jambolen/Jamboram plum	**ដំណាំយកប្រេង Oil Crops**		961	ផ្កាក្រសាំង Bougainvilea
ដំណាំយកផ្លែផ្សេងឧទ្យាន Cultivated fruit		836	ទំលប់ Persimmon/Lekima fruit	911	ដូង Coconut	962	ដើមចេកមាស Heliconia
811	ចេក Banana	837	ទំពាំងបាយជូរ Grape	912	ដូងប្រេង Oil Palm	963	ដើមខ្ញី Ginger plant
812	ទៀប Custard apple	838	ពុទ្រា Jujube	913	ដើមត្នោត Palm	964	ដើមរាសី Lucky bamboo plant
813	ទៀបបារាំង Sour sop	839	គូលែន Lychee or Litchi	914	ដំណាំយកប្រេងផ្សេងៗ Other oil crops	965	ដំណាំលម្អផ្សេងៗ Other ornamental plant
814	ត្របែក Guava	840	ស្ពឺ Star Fruit	**ដំណាំសម្រាប់បញ្ចុះឥទ្ធិពល Spices and aromatic crops**		**ដំណាំមិនមែនស្បៀង Non-food crops**	
815	មៀន Longan	841	ស្រកានាគ Dragon Fruit	921	ម្រេច Black pepper	971	ឫស្សី Bamboo
816	ស្វាយ Mango	842	ទលិងទឹក Bilimbi Fruit	922	ក្រសាំង Wood Apple	972	ពីងពង់ Japanese Bamboo
817	ល្ហុង Papaya	843	ប៉ះស្សុង Passion Fruit	924	អំពិល Tamarind	973	ដើមប្រេងខ្យល់ Eucalyptus trees
818	ម្នាស់ Pineapple	844	កំពីងរាជ Sour apple/Cotton fruit/ Sandorica	925	ដំណាំគ្រឿងទេសផ្សេងៗ Other spices and aromatic crops	974	ឈើចន្ទន៍ក្រស្នា Sandalwood
819	ខ្វិត Wood apple	845	កន្ទួត Small bell	**ដំណាំយកកៅស៊ូ Rubber and Tanning Crops**		975	ឈើមួល Timber wood trees

Annex 3 – Codes for Agricultural Crops in Cambodia (continuation)

820	ខ្នុរ Jackfruit	846	ក្រៅ Malabar orange	931	កៅស៊ូ Rubber	976	ដំណាំមិនមែនស្បៀងផ្សេងៗឈរ Other non-food permanent crops
821	ចំប៉ាដក់ Jampadak/ Breadfruit	847	ខ្វិត Elephant apple	932	ដំណាំដំណាំយកកង់ Other rubber and tanning crops		
822	ទទីម Pomegranate	848	លម្ភើ Date	**ដំណាំផ្កា Flower Crops**			
823	ល្មុត Sapodilla/Chico	849	ញ Noni/Morinda	941	ផ្កាកុលាប Rose		
824	សេងា Lekima fruit	850	ដំណាំផ្លែផ្សេងៗ Other cultivated fruit	942	ផ្កាម្លិះ Jasmine		
825	សាវម៉ាវ Rambutan	**ដំណាំយកគ្រាប់ដែលអាចញ៉ាំបាន Edible nuts**		943	ផ្កាចន្ធ Tuberose		

826	មង្ឃុត Mangosteen	861	ស្វាយចន្ទី Cashew nuts	944	ផ្កាអរគីដេ Orchid		
827	ម្ជៀរ Rambeh	862	ស្លា Betel nuts	945	ផ្កាឈូក Lotus flower		
828	អំពិលទឹក Manila tamarind	863	ឈូក Lotus nuts	946	ផ្កាចំប៉ី Frangipani		

ចម្លើយឆ្លើយផ្សេងទៀត Other responses	
997	ដំណាំផ្សេងទៀតដែលមិនបានចាត់ថ្នាក់ Other crops not classified elsewhere
998	អ្នកឆ្លើយមិនស្គាល់ដំណាំ Respondent do not know the crop

Annex 3 – Codes for Agricultural Crops in Cambodia

A. Codes for Temporary Crops (Section B7 of Form B and Sections C3 of Form C)

ត្រាប់ធញ្ញជាតិប្រមូលបាន **Cereals harvested for grain**		អំណាប់គ្រឿងទេស គ្រឿងបរិភោគនិងឱសថ **Spices, condiments, aromatic and medicinal plants**		512	ផ្ទីរដូង Amaranth	ពពួកសណ្ដែកបៃតង **Leguminous green vegetables**	
101	ស្រូវធម្មតា Non-aromatic paddy	421	ដើមម្ជូម Caraway	513	ផ្ទីរបង្គា Pig weed	561	សណ្ដែកបាវរាំង Peas/Snow Peas
102	ស្រូវក្រអូប Aromatic paddy	422	ជីអង្គាមឬខ្នងរង Mint	514	បន្លែយកស្លឹកឬទងផ្សេងៗទៀត Other leafy or stem vegetables	562	សណ្ដែកកួរ Yard long bean
103	ស្រូវដំណើប Sticky paddy	423	គ្រាប់ការី Coriander	បន្លែមានផ្លែ **Fruit-bearing vegetables**		563	ពពួកសណ្ដែកបៃតងផ្សេងៗ Other leguminous green vegetables
104	ស្ពៀតពោត Maize (young corn)	424	ដើមជលគ់ Sweet basil	521	ម្ទេស Chili	បន្លែផ្សេងៗ **Other vegetables**	
105	ពោត Maize (white/Yellow/Violet)	425	ស្លឹកម្លូ Betel leaf	522	ត្រសក់ Cucumber	571	ស្ពៃផ្កាខាត់ណា Cauliflower
106	គ្រាប់ស្ពួយ Sorghum	426	ដើមស្លឹកគ្រៃ Lemon grass	523	ត្រសក់ស្រូវ Muskmelon	572	ស្ពៃផ្កាឈររីបៃតង Broccoli
107	គ្រាប់ធញ្ញជាតិផ្សេងៗ Other cereal harvested for grain	427	ដើមរម្ញៀត Turmeric	524	ត្រប់ Egg plant	573	ផ្កាក់ផ្កា Water hyacinth flower
អំណាំយកមើម **Tubers, Root and Bulk Crops**		428	ស្លឹកកាឆាយ Chive	525	គ្រាប់ពុតញ្ជុង Common Asiatic Wood	574	ទំពាំងបារាំង Asparagus
201	ដំឡូងបារាំង Potato	429	ជីរាំត់ស្ទីយ Parsley	526	ឃ្លោក Gourd	575	ទំពាំង Bamboo shoot
202	ដំឡូងផ្ទា Sweet potato	430	គ្រឿងទេសផ្សេងៗ Other spices	527	ល្ពៅ Pumpkin	576	គ្រយោងចេក Banana flower bud
203	ដំឡូងមី Cassava	សណ្ដាហារកម្មផ្សេងៗ **Industrial Crops**		528	ឃ្លោកបៃតៈ Green gourd	577	បន្លែផ្សេងៗ Other vegetables
204	គ្រា Taro/Trao	441	អំពៅ Sugarcane	529	ម្ទេសផ្អែម Sweet pepper/ Capsicum/Bell pepper	អំណាំសាកវប្បកម្មពិសេស **Special horticultural cultivation**	
205	សាគូ Arrowroot	442	ថ្នាំជក់ខ្លាំង Tobacco strong	530	ប៉ងប៉ាៈ Tomato	601	ផ្សិត Mushroom
206	ដំឡូងលាមមាត់/ដុង Yam potato	443	ថ្នាំកាធ Tobacco light	531	ម្រះ Bitter melon	602	អំណាំសាកវប្បកម្មផ្សេងៗ Other horticultural crops
207	ដំឡូងដៃខ្លា the tiger's claw	444	អំណាំសណ្ដាហារកម្មផ្សេងៗ Other industrial crops	532	ឪឡឹក Watermelon	អំណាំទំណីសត្វ **Fodder Crops (for grazing or cut for hay, green feed or silage)**	

Annex 3 – Codes for Agricultural Crops in Cambodia (continuation)

208	ដំឡូងបាស Tuberous potato	អំណាំយកកេសរសំឡី **Fiber crops**		533	ពពាយជ្រុង Wing bean	701	អំណាំដុះជាចំបើងសម្រាប់ចំណីគោ–ក្របី Fodder Crops

Code	Crop	Code	Crop	Code	Crop	Code	Crop
209	ដំឡូងដួង Wangled yam	451	កប្បាស Cotton	534	គោកបាវ៉ាង Bhendii	702	ស្មៅចំណីគោ King grass
210	ដំណាំមើមឬដុំផ្សេងៗ Other tubers, root and bulk crops	452	ក្រចៅ Jute	535	ននោងឌងគ់ Snake gourd		
ដំណាំសណ្ដែកយកគ្រាប់សំខាន់ៗ Leguminous (Grain) Plants		453	គរ Kapok	536	ននោង Ivy gourd		
301	សណ្ដែកអង្គុយ Cowpea	454	ដើមខ្សែ Nettle plant	537	ត្រឡាច Squash/Winter squash		
302	សណ្ដែកបាយ Mungbean	455	ដំណាំសម្រាប់ធ្វើអំបោះផ្សេងៗ Other fiber crops	538	បន្លែមានផ្លែផ្សេងទៀត Other fruit-bearing vegetables		
303	សណ្ដែកក្រហម Scybean/Red kidney bean	**បន្លែយកទង ឬស្លឹក Leafy or stem vegetables**		**ដំណាំយកមើម Root, bulb and tuberous vegetables**			
304	សណ្ដែកអង្កែ Pigeon pea	501	ត្រកួន Trakun/Water convolvulus	541	ការ៉ុត Carrot		
305	ពពាយស្លឹក Lablab/Hyacinth bean	502	ស្ពៃក្ដោប Cabbage	542	ឆៃថាវ Sugar beet		
306	ដំណាំដាំសម្រាប់យកគ្រាប់ Other leguminous plants	503	ស្ពៃស Lettuce/all types	543	រ៉ាឌី Radish		
ដំណាំយកប្រេង Oilseed crops		504	ខ្ទឹមស្លឹក Green garlic	544	ស្ពៃមើម Turnip		
401	សណ្ដែកដី Ground nut (peanut)	505	ខ្ទឹមដើម Scallion (spring onion)	545	ខ្ទឹមក្រហម Shallot		
402	សណ្ដែកសៀង Soybean	506	ស្ពៃក្ដោបចិន Celery	546	ខ្ទឹមបារ៉ាំង Onion		
403	ល្ង Sesame	507	ព្រលិត Water lily	547	ខ្ទឹមស Garlic, white		
404	ល្ហុងខ្លង Castor bean	508	ស្ពៃថោ Spinach	548	ខ្ញី Ginger		
405	គ្រាប់ល្ហុងករតន៍ ឬផ្កាល្ហុងករតន៍ Sunflower	509	ក្រសាំងទាប Watercress	549	ដំណាំយកមើមផ្សេងៗ Other root, bulb and tuberous vegetables		
406	ដើមកប្បាស Cottonseed	510	ស្ពៃក្រញាញ់ Chinese kale				
407	ដំណាំយកប្រេងផ្សេងៗ Other oilseed crops	511	ជន្លល់ភ្នំ Clover				

Annex 3 – Codes for Agricultural Crops in Cambodia (continuation)

B. CODES FOR PERMANENT CROPS (Section B8 of Form B and Sections C4 of Form C)

Code	Crop	Code	Crop	Code	Crop	Code	Crop
ផ្លែក្រូច Citrus fruit		829	ធូរ៉េន Durian	864	គ្រាប់ដែលអាចបរិភោគបានផ្សេងៗ Other edible nuts	947	ផ្កាប៉ិករបាម Plumeria
801	ក្រូចពោធិសាត់ Oranges	830	ទឹកដោះគោ Milk fruit	**ដំណាំភេសជ្ជៈ Beverage Crops**		948	ផ្កាម Anthurium
802	ក្រូចហ្ចេ Tangerines	831	ល្មុត Lotus fruit	901	កាហ្វេ Coffee	949	ផ្កាឈូករ័ត Daisy
803	ក្រូចថ្លុង Grapefruit/ Pomelo	832	ជំពូ Rose apple	902	តែ Tea	950	ផ្កាឈ្មួយរបប Chrysanthemum

804	ក្រូចឆ្មារ Lime/lemon	833	ម៉ាក់ប្រាង Marian plum	903	កាកាវ Cacao	951	ដំណាំផ្កាផ្សេងៗ Other flowers
805	ក្រូចសើច Kafir lime	834	ម្កាក់ Hog plum	904	ដំណាំភេសជ្ជៈផ្សេងៗ Other beverage crops	**ដំណាំយកការដើមលម្អ Ornamental Plants**	
806	ផ្លែក្រូចផ្សេងៗ Other citrus fruits	835	ព្រីង Jambolen/Jamboram plum	**ដំណាំយកប្រេង Oil Crops**		961	ផ្កាក្រដាស Bougainvilea
ដំណាំយកផ្លែដាំផ្សេងៗ Cultivated fruit		836	ទំលាប់ Persimmon/Lekima fruit	911	ដូង Coconut	962	ដើមចេកមាស Heliconia
811	ចេក Banana	837	ទំពាំងបាយជូ Grape	912	ដូងប្រេង Oil Palm	963	ដើមខ្ញី Ginger plant
812	ទៀប Custard apple	838	ពុទ្រា Jujube	913	ដើមត្នោត Palm	964	ដើមរាស៊ី Lucky bamboo plant
813	ទៀបបារាំង Sour sop	839	គូលែន Lychee or Litchi	914	ដំណាំយកប្រេងផ្សេងៗ Other oil crops	965	ដំណាំលម្អផ្សេងៗ Other ornamental plant
814	ត្របែក Guava	840	ស្ពឺ Star Fruit	**ដំណាំសម្រាប់ប្រើ្រឿងទេស Spices and aromatic crops**		**ដំណាំមិនមែនស្បៀង Non-food crops**	
815	មៀន Longan	841	ស្រកានាគ Dragon Fruit	921	ម្រេច Black pepper	971	ឫស្សី Bamboo
816	ស្វាយ Mango	842	ទលិងទឹង Bilimbi Fruit	922	ក្រសាំង Wood Apple	972	ពីងពង់ Japanese Bamboo
817	ល្ហុង Papaya	843	ប៉ាស្យុង Passion Fruit	924	អំពិល Tamarind	973	ដើមប្រេងខ្យល់ Eucalyptus trees
818	ម្នាស់ Pineapple	844	កំពីងរាជ Sour apple/Cotton fruit/ Sandorica	925	ដំណាំគ្រឿងទេសផ្សេងៗ Other spices and aromatic crops	974	ឈើចន្ទន៍ក្រស្នា Sandalwood
819	ខ្នុរ Wood apple	845	កន្ទួត Small bell	**ដំណាំយកកៅស៊ូ Rubber and Tanning Crops**		975	ឈើមូល Timber wood trees

Annex 3 – Codes for Agricultural Crops in Cambodia (continuation)

820	ខ្នុរ Jackfruit	846	ផ្លៃ Malabar orange	931	កៅស៊ូ Rubber	976	ដំណាំមិនមែនស្បៀងៗផ្សេងៗទៀត Other non-food permanent crops
821	ចំប៉ាដក់ Jampadak/ Breadfruit	847	ខ្ញិត Elephant apple	932	ដំណាំដំណាំយកកៅស៊ូ Other rubber and tanning crops		
822	ទទឹម Pomegranate	848	លម៉ើ Date	**ដំណាំផ្កា Flower Crops**			
823	ល្មុត Sapodilla/Chico	849	ញ Noni/Morinda	941	ផ្កាកុលាប Rose		
824	សេងា Lekima fruit	850	ដំណាំផ្លែផ្សេងៗ Other cultivated fruit	942	ផ្កាម្លិះ Jasmine		
825	សាវម៉ាវ Rambutan	**ដំណាំយកគ្រាប់ដែលអាចញ៉ាំបាន Edible nuts**		943	ផ្កាចន្ទ Tuberose		

826	មង្ឃុត Mangosteen	861	ស្វាយចន្ទី Cashew nuts	944	ផ្កាអរគីដេ Orchid		
827	ម្ជៀរ Rambeh	862	ស្លា Betel nuts	945	ផ្កាឈូក Lotus flower		
828	អំពិលទឹក Manila tamarind	863	ឈូក Lotus nuts	946	ផ្កាចំប៉ី Frangipani		

ចម្លើយឆ្លើយឆ្លៀក Other responses	
997	ដំណាំផ្សេងៗទៀតដែលមិនបានចាត់ថ្នាក់ Other crops not classified elsewhere
998	អ្នកឆ្លើយមិនស្គាល់ដំណាំ Respondent do not know the crop

Annex 4
References

Cochran, William G. (1977), Sampling Techniques (3rd edition)[1]

Food and Agriculture Organization of UN (2010), World Programme for the Census of Agriculture 2010, Volume 1, A System of Agriculture Censuses and Surveys[2]

National Statistics Office Philippines (2002), Census of Agriculture Enumerator's Manual[3]

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[1] This book was used as reference in choosing the sampling design and procedures.

[2] The data items recommended for the core module and supplementary modules (in addition to the data users' data needs) were followed in developing and finalizing the census questionnaires. The definitions of the terms and concepts in relation to these data items were based on the explanations given in the WCA 2010 and considering also the agricultural situation in Cambodia.

[3] The procedures set in the Enumerator's Manual of Philippine National Statistics Office (PNSO) 2002 Census of Agriculture regarding mapping and canvassing will be used in the first National Census of Agriculture in Cambodia (NCAC) in 2013 to update the boundaries and landmarks of the village/enumeration area maps as well as to plot the exact location of the households to be listed in Form A in these maps. Such procedures used by NSO are so effective that the sample households in any of its surveys can be located. Hence, since the NCAC 2013 will be used as sampling frame for the future agricultural surveys of MAFF, the listing and core module frame to be produced from such census should also have good enumeration area maps in which the sample households can easily be located. The PNSO procedures will be applied according to the real situation of the rural areas in Cambodia.