

Table of Contents

- 1. INTRODUCTION 2
- 2. What is the Belize National Agriculture Census (BNAC)?..... 3
- 3. Who is a farmer? 3
 - 1. Why is it important for you the farmer to register, your farm and its production? 3
 - HYPERLINK "bookmark://_Toc515034063" [OBJ]
3
 - 2. Among other benefits and uses of census data results are: 4
 - 3. What information will be captured? Why is the census data needed?..... 4
- 4. Confidentiality: 4
- 5. JOB DESCRIPTION OF TEAM..... 5
 - 1. How to Handle an Interview..... 11
 - 2. The Interviewing Process 12
 - 1. YOUR QUESTIONNAIRE 13
 - 3. Ending the Interview 14
 - 4. Thank the respondent..... 14
- 6. Interviewing Techniques..... 14
 - 1. Maintaining Confidentiality 14
 - 2. Probing..... 15
 - 3. Listen 15
 - 4. Obtaining Clarification 16
- 5. BASIC TERMS & DEFINITIONS 16

1. Introduction

The agriculture and food sector is one of the main pillars of the Belizean economy, contributing approximately \$590 million annually to economic output, representing 80% of domestic exports, and directly employs 17.9% of the Belizean population. Moreover, it is a major foreign exchange earner, maintains a vibrant rural population and ensures food and nutrition security for the country.

The Ministry of Agriculture is implementing major initiatives to reform the enabling environment for agriculture and food production including the regulatory framework, market reform, and adoption of advanced technologies to counter the significant challenges posed by climate change. For these initiatives to be properly implemented, accurate data at all levels is required. The Belize Agriculture Management Information System (BAIMS) is now being populated via the National Agriculture Census 2018. This information is critical for evidence based decision making by the Ministry.

The BAIMS evolved from an in-depth Country Assessment on Agriculture Statistics, and a Strategic Plan for Agriculture and Rural Statistics (SPARS) following the standards set by the Food and Agriculture Organization (FAO). This project was funded by the Inter-American Development Bank and the Ministry of Agriculture. The BAIMS is a web-based application that serves as a central repository for data collection and dissemination and was developed by a local company, KYN Consulting of Corozal Town.

The Census will populate the Belize Agriculture Information Management System (BAIMS) with key information on the farmer, geo-referenced coordinates of farms and details on the farming activities.

The BAIMS data will be used to accurately project production, and link the production to markets using the virtual market platform. In addition, analysis of the geo-referenced data will enable the Ministry to do remote sensing for the evaluation, monitoring and management of crop resources, increase the implementation of pest and disease surveillance systems, design appropriate drainage and irrigation infrastructure and improve climate risk management.

With this functioning system we will be able to generate the following:

1. A farmer registry
2. A georeferenced Farm registry
3. Production projections from pre-planting to expected harvest to ensure that there is a supply and demand balance (to avoid scarcity or oversupply)
4. analysis of production trends and economic outlook

IMPORTANCE OF THE BAIMS DATA

The importance of the data cannot be understated. Farmers, buyers, agro-stakeholders & government require information for decision-making. Quality (accurate, timely & reliable) data allows for objective analysis of the agriculture sector's contribution to the socio-economic development of Belize. Some key uses of the data however will support users in the following:

- To create better opportunities for linking their products to local, regional or international markets.
- To advocate for the development of better financial policies for greater and more affordable agriculture credit
- To better allocate resources and focus programs, grants and projects to address the needs of the farming communities

With the geo-referencing data from the BAIMS Farm Registry, the Ministry of Agriculture can now take advantage of the NEW TECHNOLOGIES available through Geographic Information Systems to do analysis and deliver better services to the farming community. The Ministry is using the Farm GIS data for three specific reasons:

- To assist with the surveillance and management of pest & diseases
- To assess damages and recovery needs in times of natural disaster (flood, drought etc.)
- To provide support and technical advice in water management and climate change mitigation
- To monitor and measure land use changes

2. What is the Belize National Agriculture Census 2018 (BNAC)?

The Belize National Agriculture Census is a process of collecting data to uniquely identify all farmers as well as provide basic information about their farms and farming practices. The Agriculture Census targets individuals or groups (including companies, cooperatives & associations) who are cultivating crops and/or rearing livestock (apiculture & aquaculture) to earn an income.

(Layman terms: The purpose of the census is to provide a count of all farmers and farms in Belize, in order to provide the goods and services that those farmers need to improve their quality of life)

3. Who is a farmer?

For the purposes of the Census a farmer is

- a. Any person who has .5 acres of land under production
And/ or
- b. Any person whose yearly economic contribution from agriculture is 30% or more

1. Why is it important for you the farmer to register, your farm and its production?

The Census data results will:

- Create better opportunities for linking your products to local, regional or international markets.
- Influence financial policy for greater and more affordable agriculture credit or loans
- Assist in the surveying and managing of pest & diseases
- Develop recovery programs that will support you in times of natural disaster
- Influence government and policy makers in decision making for budget, programs, and services to be rendered.
- Accurately Measure and show how valuable your production is to the economy of Belize.

1. Why is the Census important?

1. The census is necessary because farmers, buyers, agro-stakeholders (agro-input suppliers), investors, entrepreneurs & government need information when making production & business decisions.
2. The census allows stakeholders to know the composition of the agriculture sector, what and how much is produced and the destination of its production.
3. The census data influences policy decisions, programme planning, implementation and operations in the wider agriculture sector. (E.g. *identifying beneficiaries and controlling the distribution of flood relief, & identifying market opportunities*).
4. The census allows for the measurement of the true socio-economic contribution of agriculture to GDP, foreign exchange earnings/savings, employment and food security (energy, food & feed).
5. The utility of the census data provides a unique opportunity for the ministry to support farmers through the use of spatial (GIS & remote sensing) data to
 - project & forecast of production,
 - pest & diseases surveillance (quarantine)
 - disaster risk management (flood & drought monitoring & response)
 - water management &

- measure land use changes,

2. Among other benefits and uses of census data results are:

1. All farmers in Belize are uniquely identified and officially recognized;
2. Provides extension, quarantine and Police officers means of verifying production and its origin;
3. Used to screen disaster relief claims and to enable a fair distribution of benefits or grants;
4. Farmer, Consumers, Wholesalers and retailers can get information on the location and estimated volumes of crops and livestock available;
5. Identifies to entrepreneur's and investors agriculture business opportunities
6. Steers the development of targeted agricultural support programs
7. The identification of production source through the geo-referencing of farms supports Export Traceability Programme;
8. Agriculture's capacity and prospects for expansion can be determined;

3. What information will be captured? Why is the census data needed?

Planning, planning, planning..... farmers, buyers, agro-stakeholders & government all require information for decision making. Quality (accurate, timely & reliable) data allows for objective analysis of the agriculture sector and its contribution to the socio-economic development of Belize.

4. Confidentiality:

All information provided shall remain strictly confidential and will not be used unless authorized by the individual. Data will not be used for reasons of taxation, legal tenure and immigration. Data shall be published only in the form of summaries or statistical tables in which no reference is made to an individual or entity (Statistical Institute of Belize Act No. 9, 2006.)

How to learn more about the Census:

- Visit your nearby district Agriculture Department & Extension Service
- Ministry of Agriculture webpage (www.agriculture.gov.bz)
- Facebook page (ministry of agriculture policy and public private sector interface unit)
- Call Statistics Unit at 822-2648 located at the National Agriculture and Trade Showground, Hummingbird Highway, Belmopan City.
- Available on android and *ios* stores *for free* (BAMIS)

GENERAL INSTRUCTIONS

This manual is called the **FIELD MANUAL**. It is designed to answer almost all questions that may arise while you are conducting the 2018 BNAC in the field. It explains all phases of the data collection from the beginning to the end. When you face a problem, you can find an answer in it. For this reason it is very important to read this manual very carefully and to be familiar with it. **CARRY IT WITH YOU AT ALL TIMES WHEN YOU ARE WORKING ON THE BAC.**

During the registration of a stakeholder the following will occur:

1. **Farmers will be required to provide a legal form of identification (SS, Passport)**
2. Farmers' data and photo taken by enumerators at farms (questionnaire)
(Photo IDs will be produced at the end of the district census and will be available at the Agriculture District Station)

5. **JOB DESCRIPTION OF TEAM**

Census Coordinator (Clifford Martinez)

Description of Position: management, organization and coordination of all census activities in consultation of the Head of Policy Unit

1. Implementation of an effective internal communication platform
2. Develop a post census
3. Ensure a constant flow of communication with the Head of the Policy Unit and Director of Extension on critical decisions to be made or changes recommended to the approved Implementation Strategy
4. Coordinate with Head of Policy Unit on the disbursement of funds and report challenges in processing payments
5. Ensure financial resources are available for project implementation; monitor (human and financial) resources and ensure each district spends its budget allocation.
6. Provide a monthly update on the census activities. Provide a weekly update on the Pilot Census activities.
7. Review census implementation strategy after the pilot and recommend changes where necessary. Any critical changes to the Implementation Strategy needs to be approved by the Head of the Policy Unit.
8. Provide daily briefing on the status of the Pilot Census. Organize semi-monthly meetings, to review the progress of the Census with the Policy Unit, Monitoring and Evaluation Officer and the District DAC.
9. Qualitative Analysis of the data collected after Pilot Census.
10. Responsible for the timely execution of the implementation plan.
11. Submit at Pilot Census report on the strengths, weaknesses, outcomes, and updated budget at the conclusion.
12. Ensure the timely preparation and submission of a Census report for each district at completion.
13. Monitor functions of the Assistant Coordinator and Field Supervisors on the Status of the Census and address challenges encountered.
14. Prepare a monthly report for Senior Management Meeting updating on the status of the Census.
15. Authorize payment of enumerators, fuel and subsistence and forward a copy to the Head of the Policy Unit and Liaison Officer who will ensure payment is made.
16. Prepare a post census implementation plan to guide long term data collection of the Ministry that is cost effective
17. Any other duties that maybe assigned in relation to the implementation of the Agriculture Census.

Duration: One year or until completion of the Census

Census System Coordinator (Greg Canto):

Description: Support and reports to the Census Coordinator in the implementation of the Census

1. Supervise and monitor Procurement Officer and report challenges to Census Coordinator
2. Review attendance/ surveys completed by enumerators and prepare payroll to be forwarded to the Coordinator (procurement)
3. Prepare draft budget and census reports
4. Organise and assign Field Supervisor to their survey locations
5. Assign Walk-in Farmers to Field Supervisors for verification
6. In addition, the Assistant Coordinator will simultaneously hold the role of System Coordinator.

As a System Coordinator the person holds the duty of making any minor backend changes that will facilitate the recording and processing of data. Any major changes and challenges encountered to the data base system (BAIMS) need to be reported immediately to the Head of Policy Unit and the Census Coordinator in report form.

Liaison Officer (Miguel Balan):

- I. Organize meetings with Community Leaders: contact community leaders, confirm meeting dates, venue and ensure availability of materials necessary to conduct meetings.
- II. Confirm availability of Census Village working stations and ensure station has an adequate working environment/utilities inclusive of material necessary to carry out Census duties.
- III. Secure and confirm dates for talk shows
- IV. update Website and Facebook on the status of the Census
- V. Ensuring the availability of miscellaneous for all Census personnel and stations (office equipment for conducting census, census station equipment, toiletries, water)
- VI. This Officer will also serve as the procurement officer for the census ensuring that purchase orders are prepared and invoices submitted timely to ensure payment
- VII. After Approval by Coordinator and Head of Policy Unit, forward enumerator payroll sheet to finance and ensure payment is made. Immediately advise Coordinator and Head of Policy Unit if challenges arise with payment.
- VIII. Support in the communication mechanism of the Censu (flyers, banners, posters, presentations)
- IX. Any other duties related to the implementation of the Census

Monitoring Officer (Phillip Tate and Dwight Gillet)

- I. Provide support to the Supervisors by ensuring that they have equipment, personnel, transportation and respond to any technical questions that may arise while the Census is being implemented
- II. Be the direct link between the Census Data collectors on the ground and the Census Coordinator
- III. Oversee the implementation of the Census Plan, ensuring that the time and finances being

assigned to each district is being spent adequately

IV. Randomly select 3 farms and farmers from each enumerator to ensure that data collected is true and accurate.

District Field Supervisor (District Agriculture Officer)

- I. Monitor, advise and coordinate the Group leaders
- II. Assign Group Leaders the locations where they will be collecting data
- III. Ensure the Census Groups have collected data from the entire village
- IV. Advise Monitoring Officer of status of data collection and immediately address difficulties encountered at the field by the Groups
- V. Ensure that Group leaders have the necessary equipment to work (working tablets, transportation, miscellaneous)
- VI. Review the Attendance/ number of surveys completed by each enumerator and Authorize the payment of each Enumerator
- VII. Assign Group leaders to each location and enumerators to each group leader
- VIII. Ensure that each Group Leaders have loaded their data to the system
- IX. Recommend along with the Monitoring Officer a new strategy or strengthen the strategy to collect data if the system presently being used is not yielding results expected.
- X. Monitor the quality of the data being collected by the Enumerators. In particular placing attention to the Farmer and Farm Registry
- XI. Ensure that Groups have access to the Internet
- XII. Ensure that errors flagged by the Quality Assurance Officer are amended before payment is given to Enumerators.
- XIII. Randomly sit in one the Groups interview process once every week.

Group Leaders (Extension Officers)

- I. Attendance of each enumerator will be monitored by the Group leaders.
- II. Monitor the work on the field by the Enumerators
- III. Respond to questions posed by the Enumerators. Immediately contact Supervisor to respond to questions where the response may be unclear.
- IV. Review the data collected by the Enumerators ensuring that the Farmer and Farm Registry is complete and accurate
- V. Ensure error identified are addressed by the Enumerator
- VI. Ensure data is loaded to the system at the end of the day
- VII. Advise the Supervisor when the location assigned has been completed
- VIII. Advise Supervisor of the challenges being encountered on the field
- IX. Advise Supervisor of the needs (tablets, paper, transportation) of the Group
- X. Ensure call back are made by enumerators to farmers they could not interview during first visit
- XI. Sit in on one interview per interviewer per week for the first two weeks
- XII. Submit weekly report to supervisor every Monday for duration of data collection on the field.

Data Quality Assurance (Alfonso Bautista)

- I. Advise Census Coordinator and Supervisor of data collection errors being encountered in order to minimize and correct those errors.
 - II. Recommend to the Census Coordinator changes that can be made through the System to minimise errors by data collectors
 - III. Review each completed application forwarded by the Enumerators
 - IV. Flag errors and resend applications.
- f. Cooperative Officer
- I. Assist Extension Officers in in the Grouping/Associating Farmers by commodities.
 - II. Assist in the Registration of new farmers

Enumerator (Hired personnel)

- I. Reach on time
- II. Dress according to regulations
- III. Complete data collection survey
- IV. Advise Group Leader of technical issues encountered with the survey and/ tablets tablet
- V. Seek advice from Group leader in areas of uncertainty
- VI. Upload data to database system on a daily basis
- VII. Advise Group leader of data collection challenges encountered at on the ground
- VIII. Be polite and friendly to those interviewed
- IX. Advise Farmer of purpose of Interview
- X. Always hold your Enumerator ID
- XI. Make call backs to respondents who could not be interviewed during first visit
- XII. Travel to assigned area of work
- XIII. Ensure that surveys are thoroughly completed before they leave farmer and farm. A picture of the Farmers ID must be attached to the survey.
- XIV. Ensure that all GPS coordinates are taken on the farm of the farmer being interviewed
- XV. Correct errors or omissions pointed out by Group leaders

System Administrator (Horace Jones)

Assistant System Administrator

- a. Ensure that Statistical System is functional
 - b. Ensure that tablets are accounted for and functioning
 - K. Maintenance of tablets after each district
 - L. Ensure challenges with internet connectivity are addressed
 - M. Train the Assistant System Administrator in the functioning of the system
 - N. Ensure availability of reliable internet service at each Census Village Station
- daily monitoring of database system to ensure operation in all districts
- b. ensure reliable access to internet and
 - c. Monitor tablet, laptop and desktop equipment use and set up and maintain a Maintenance

2018 Belize National Agriculture Census Field Data Collection Manual
Schedule.

INTERVIEWING TECHNIQUES

The way in which you approach respondents determines the success or failure of the interview. Proper interviewing techniques are reviewed below.

Who is an ENUMERATOR?

- **The most in valuable person in your survey/census team.**

Interviewers/enumerators play a central role in the collection of data, and the ultimate outcome of the exercise depends on how well you conduct your interviews.

- **The “face” of the organization you are working for.**

Your attitude and approach is a reflection of the organization. So it is expected that staff conduct themselves in a professional manner. This in turn will help the public to be confident in the work you are doing and the organization.

- **The person tasked to administer questionnaires to a selected respondent.**

This entails collecting detailed information on households, businesses, and personal finances. The completeness and accuracy of information you collect, determines the quality of the data and the value of the entire operation.

Your Role & Responsibilities

Arrive at your designated meeting place on time in order for the team to commence the day’s work early.

- **Dress according to regulations. (Professional yet comfortable)**
- With assistance from your group leader, locate **all farms** on your list, to be interviewed.
- Make contact with the farm owner or manager, as this is the person most knowledgeable of the operations of the farm.
- Properly introduce yourself to the farmer, by explaining the purpose of the interview and present your Enumerator ID.
- Administer your questionnaire and complete your designated assignment in a timely manner.
- **Conduct interviews with respect and establish rapport with the respondents.**
- **Maintain confidentiality during and after the interview is completed.**
- **Be polite and friendly to those interviewed and thank the respondent for his/her time and participation.**

Important Reminders for Enumerators

General Reminders:

- Make call backs or revisits to interview respondents who could not be interviewed during the first few visits due to various reasons.
- Review all recorded information, check for errors that may be corrected at the premises, and ensure that all questions are answered.
- Revisit farmers/farms to correct any errors or omissions in the questionnaires pointed out by the Field Supervisor
- Debrief your group leader on the day’s progress and any problems or challenges encountered in the field.
- Advise your group leader of technical issues with your tablet.
- Seek advice from the group leader in areas of uncertainty.

At the beginning and ending of each Census day

- UPLOAD data to database system at the END OF EVERY DAY**
- DOWNLOAD the database EVERY MORNING before collecting data**

1. *How to Handle an Interview*

The enumerator and the respondent are strangers to each other; therefore, it is important that the enumerator approaches an interview by doing the following.

a. **Make a good first impression**

When first approaching the respondent, do your best to make them feel at ease. With a few well-chosen words, you can put the respondent in the right frame of mind for the interview. Open the interview with a smile, a friendly and polite greeting, and then proceed with your introduction

b. **Build rapport with the respondent**

Smile when you approach a respondent, maintain eye contact and deliver a sincere greeting when introducing yourself. You need to develop mutual trust between yourself and the respondent especially since the information you will be collecting may be considered “personal” or confidential.

c. **Always have a positive approach**

d. **Never adopt an apologetic manner**, and never approach with such words as:

- “Are you too busy?” or
- “If you are not too busy?” or
- “If you don’t mind ...”

Such questions will invite refusal before you even start. Rather, **tell** the respondent “**I would like to ask you a few questions, please.**” If upon approaching the farm or household, the respondent appears to be busy, indicate your willingness to wait for a reasonable period.

e. **Answering questions from the respondent**

Before agreeing to be interviewed, the respondent may ask you some questions about the survey or how he/she was selected to be interviewed, or how the survey is going to help him/her. Be direct and pleasant when you answer. The respondent may also be concerned about the length of the interview. Please be frank in telling him/her how long it will likely take you to administer the questionnaire.

f. **Emphasize CONFIDENTIALITY of any information collected**

Explain to the respondent that the information you collect will remain confidential, that no individual names will be used without their consent and that all information will be grouped together and made anonymous when any report is released.

- **Never** mention other interviews or read the questionnaire with other enumerators or the supervisor in front of a respondent or any other person. This will automatically erode the respondent's confidence in you.

g. **Making Initial Contact**

On approaching a farm/household, the first thing you should do is find a knowledgeable adult (farm manager/owner) and introduce yourself, stating;

- **The time of day and your name**
- **The organization you are working for,**
- **The objectives of the survey**
- **What you want the respondent to do for you**
- **Address the issue of confidentiality**

While introducing yourself

- **Smile**
- **Show your Enumerator Identification Card**
- **Speak clearly and loud enough to be heard**

Your Introduction

Offer Your ID and say something like:

Good morning/afternoon Sir/Ma'am. My name is Mabel Williams (**showing your ID**) and I am a trained enumerator hired by the Ministry of Agriculture to collect information for the Agricultural Census.

The Ministry of Agriculture wants to learn about the progress, production of goods and the overall contributions of farmers to the economic growth and development of Belize.

The survey involves answering some questions. All the information we obtain from you will remain strictly confidential. Your cooperation and answers would be extremely important.

May I start now?

- **What if the person says “I am too busy right now”?**

Assure the respondent that you are willing to wait (keeping in mind your work schedule). If the respondent still insists that they are busy, try to reschedule the interview for another day at a more convenient time.

- **What if the person is rude to you?**

Simply thank them for their time and return another day.

- **Share your experiences and suggestions.**

h. **Your Appearance**

The respondent's first impression of you is formed through your appearance. The way you dress will influence his/her willingness to participate in the survey, therefore, you should dress neatly and simply at all times

Wear **neat, conservative, clean clothes** suitable for the area you are interviewing. Remember the organization you are representing.

Persons are more likely to respond positively to a data collector who looks and behaves in a professional manner.

Refrain from wearing colors such as red or blue so as not to be affiliated with any other organization or political party. This may sway the respondent's willingness to participate.

2. *The Interviewing Process*

Explain briefly the objective of your visit and then proceed with your brief introduction of the survey. Your friendly appearance, courtesy and a few well chosen words can put the respondent at ease and in a right state of mind to answer all your questions willingly and honestly.

Interview the respondent alone

The presence of a third person during the interview can prevent you from getting open and honest answers from the respondent.

If other people are present, explain to the respondent that some of the questions are private and request to talk to him/her alone.

- **Handling hesitant respondents**

Ask questions slowly to ensure the respondent understands what is being asked.

After you have asked a question, **PAUSE** and give the respondent time to think. If the respondent feels hurried or is not allowed enough time to think about their answers, they may respond with “**I don't know**”

In such situations where the respondent simply says “**I don't know**”, gives an irrelevant answer, acts in a manner suggesting he/she is bored, or gives a response which contradicts earlier answers, try to gain the respondents interest by spending a few moments to talk about unrelated things (Example: his/her town or village, the weather).

- **Be neutral throughout the interview/Be non-judgmental.**

Some respondents tend to give answers they think are socially desirable. It is important that you, the enumerator, remain neutral as you ask each question and non-judgmental when you are given a

response. Never, either by the expression on your face/body or by the tone of your voice, give an impression to the respondent that they are giving a right or wrong answer.

- **Never Suggest answers to the respondent**

If a respondent's answer is not relevant to the question, do not prompt him/her by saying something like

“I suppose you mean that...is that right?”

Rather, you should probe in such a manner that the respondent comes up with the relevant answer. For example, ask instead

“Can you please explain what you mean by that?”

- **Do not change the wording or sequence of questions**

The wording of questions and their sequence in the questionnaire must be maintained. Ask **ALL** the questions, even if the respondent answers two questions at once. You can explain that you must ask each question individually, or say **“Just to verify you mentioned....is that right?”**.

If the respondent has not understood the question, you should repeat the question slowly and clearly.

- **Do not leave any question blank**

Record answers immediately when the respondent gives you the responses. **NEVER rely on writing answers in a notebook for transfer to the questionnaire later.**

Do not leave any question unanswered unless you have been instructed to skip, as questions left blank are difficult to deal with after your work has been submitted and you may have left the area or village.

- **Do not rush your respondent**

After you have asked a question, pause and give the respondent time to answer. If the respondent feels hurried/rushed, he/she may become uncooperative

- **Remember time is of the essence**

Keep in mind the survey schedule, and remember that you are part of a team. Do not stay and talk for too long but **DO NOT** rush the interview either.

Avoid over-staying in the respondent's premises even if he/she is very friendly and welcoming.

You are advised to avoid long discussions on issues which are not related to the exercise and which may consume a lot of your time.

1. YOUR QUESTIONNAIRE

Your questionnaire is the tool by which information is gathered from a population of individuals, households, businesses etc in a specific geographical location. In this case our focus is on that of agricultural regions.

The information gathered from the questionnaires contain vital information that are analysed or interpreted. It is therefore important that accurate data is collected allowing researchers to actually use the data to come up with policies and programs to maintain and improve issues within our country.

As an interviewer it is therefore of optimal importance that there is a clear understanding of the instrument. This is one step in securing a successful interview.

Below are a few guidelines and reminders to assist with this;

- Be knowledgeable of the key concepts and definitions being used. When a respondent is unsure of his/her you may be able to paraphrase a question to get a more clear response.
- Interviewer must first check if the farmer/farm is already in existence before creating a new one.
- Make contact with the farm owner/manager as they are the most knowledgeable.
- Whether the farmer is Belizean or not they should be registered.

Interviewing Guidelines

- Ensure the Company/Individual names are capitalized and spelt correctly.

- Ensure dates are selected correctly, especially the year.
- Ensure the location of village corresponds with the correct district. Example: San Jose in located in Cayo and Toledo.
- The primary contact # should be that of the farm owner while the Alternate contact # would be that of the manager.
- Enter the correct social security, passport etc numbers.
- **Read** every question **exactly** as worded.
- **Read** each question in the order it was written. Do not change the sequence of the questions.
- Ensure that the correct option is selected so that the skip patterns do not affect the flow of the interview, in addition to not asking questions that do not apply to the person.
- **Listen carefully to the responses** (Example: if they give you production weight in tons rather than lbs or parcel size in a measurement other than **acres**).
- Record the answers in the questionnaire/tablet during the interview. **DO NOT** record answers on scraps of paper for transfer to tablet. Remember that your supervisor needs to monitor the progress online and in the field and report to their superior on a regular basis.
- **Check your work before leaving the area or farm.**

3. *Ending the Interview*

Check the questionnaire before you leave the respondent's premises to be sure it is complete correctly. Thank the respondent for his/her cooperation and giving you time to interview him/her. This helps to leave a way open for future interviews or revisits by a supervisor if necessary.

4. *Thank the respondent*

Thank the respondent for his/her cooperation and time. This helps to leave the way open for future interviews or revisits.

6. **Interviewing Techniques**

1. *Maintaining Confidentiality*

Some persons may be reluctant to provide the necessary information. To ease your way, you will be expected to inform them that:

- It is strictly against the Law for you to divulge information to any unauthorized individual or organization.
- Information collected is kept strictly confidential.
- The data collected will help us to understand what is happening in our society, and policy makers will use this information to make informed decisions.

Confidentiality: Things you should DO

- **Do** carry your official identification card and show it upon introducing yourself. (Law requires it)
- **Do** treat the respondents with respect. This applies no matter how this person looks to you. Remember looks can be deceiving.
- **Do** remember that confidentiality covers ALL the information obtained during your duties, including anything you are told or anything you may have observed.
- **Do** take a positive line on confidentiality. Reassure the respondents, by your actions, that you take confidentiality seriously.

Confidentiality: Things you should NOT DO 14

- **Don't** talk about the data with other people. Be discreet. Even a casual remark can be a breach of confidentiality.
- **Don't** give your tablet (or questionnaires) to anyone except the designated MOA staff member.
- **Don't** leave your tablet (or questionnaires) unattended. Keep them with you at all times when in the field and store them safely and securely at home.
- **Don't** allow any unauthorized person to accompany you on your visits.

In addition, all materials issued to you (even spoilt forms) must be returned to your supervisor so that they may be carefully stored for future use or destroyed.

2. *Probing*

When respondents provide incomplete or irrelevant answers to survey questions, it becomes necessary for enumerators to query respondents further in an effort to obtain a more complete or specific answer to a given question. This is called “**Probing**”

Probing involves the use of specific words or other interviewing techniques by an enumerator to clarify or to seek elaboration of a person's response to a survey question.

Although survey researchers may take great care in constructing questionnaires in terms of the wording of both questions and response options, some respondents may not provide a response in the format pre-specified by the researcher. Likewise, respondents may offer vague or overly simplistic replies.

Ways to Probe

- **The basic probe:** Repeat a question to get the interviewee back on track; frequently used when the interviewee is going off-tangent.
- **The explanatory probe:** Used to get clearer understanding by completing the incomplete statements of the respondent. The interviewer asks questions like, “Can you give an example?” or “Can you explain that?”
- **Drawing out:** Used when the interviewee has stopped and is not responding. The interviewer restates or rephrases the last question or topic (e.g., “So, the question was.... What else can you tell me about that?”), which helps the interviewee to start talking again.
- **Giving ideas or suggestions:** The interviewer gives suggestions or ideas to think about. For example, “What if you had to....?”
- **Verifying:** The interviewer says what the interviewee said, maybe in his/her own word and confirms the answer. This also helps the interviewee to think what he or she has just said.

3. *Listen*

The key to effective probing is simply to **LISTEN**

By listening to the respondent's answer, you will know how to formulate what your next question will be. This will also ensure the line of questioning has a natural flow.
and observing the respondent's **BODY LANGUAGE**

In addition to listening to the respondent; it is equally important to read their expression, silence and body gestures. If the respondent isn't immediately forthcoming with an answer because they need time to think about their response don't rush in to fill the gap for them.

In some cases, the respondent is silent because they do not understand the question and would like clarification, or, did not hear the question.

Control the silence by waiting for the respondent to either answer or provide clarification of the question if they don't understand it.

4. Obtaining Clarification

People tend to speak in abbreviated or vague ways, assuming you know what they mean. Do not assume. Even if you are convinced that you know what they mean; assume you don't know and ask questions to force them to say more.

To get clarification, ask questions like:

“Please say what you mean by ... “

“Please tell me more about that ...”

“Can you give me an example...”

“Please describe”

Don't say:

“When you say, ... , you mean that ...?”

“Is it [substituting the response categories]?”

Avoid leading questions

Leading questions are those questions which suggest an answer in the question. Asking such questions may well have your choice of words, rather than the interviewee's, coming back at you in the answer.

- ‘Don't you think ...’
- ‘Wouldn't you say that....’
- ‘That must have been....’
- ‘Don't you agree that...’

Other Probing Tips

- Keep your questions short, incisive, one at a time.
- Use clear, simple language: avoid technical or ‘academic speak’ language.
- Clarify uncertain points: any words or ideas you don't understand, especially when someone uses clichés or generalizations which don't tell you much.
- Don't be afraid to ask, as that is what you are there for.
- Don't interrupt or butt in. An interrupted train of thought may never be retrieved. If an interesting point is made, make a note and follow it up at an appropriate point.
- Respect people's opinions, even if you don't agree with them. You may have to bite your tongue at times, but you are able to explore how people's opinions have come to be formed. You should be ‘critical but not confrontational’.

5. BASIC TERMS & DEFINITIONS

I. Reporting Unit.

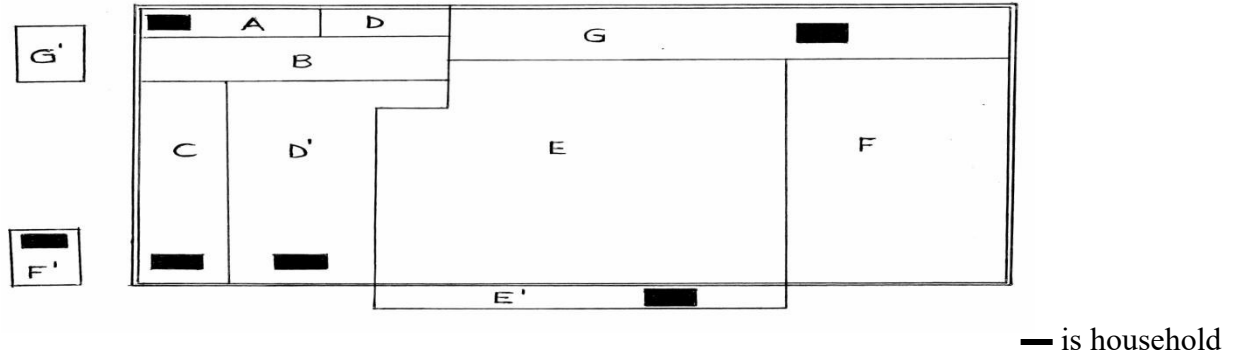
It is the individual unit or element that belongs to the population defined for the 2018 BNAC for reporting purposes. The “FARM” is the reporting unit for 2018 BNAC. One questionnaire MUST be filled out for EACH farmer.

II. Parcel

It is a portion or subdivision of a farm under one management. It is either an entire farm, part of a farm or a

nonagricultural area of land. That is, the parcel is determined by the definition of a farm and the natural boundaries. The farm boundaries consist of one or more parts; e.g., D and D'. (See figure below).

FIGURE 1: DIVISION OF FARMS INTO PARCEL



Farm - holding

It is an “ECONOMIC UNIT” of agricultural production under single management comprising all livestock

kept and all land used wholly or partly for agricultural production purposes, without regard to title , legal form, or size. Single management may be exercised by an individual or household, jointly by two or more individuals or households, by a village, or by a juridical person such as a corporation, cooperative or government agency. The farm land may consist of one or more parcels, in one or more separate areas, but inside the same district, providing the parcels, share the same “PRODUCTION MEANS” utilized by the farm, such as labour, farm buildings, and machinery or draught animals.

Characteristics for Identifying a Farm

- a. An agricultural farm **MUST** have at least 0.5 Acres (approximately 4 tasks or 0.25 manzanas) of productive land and/ or the yearly economic contribution from agriculture production must be 30% or more
- b. Any land assigned to managers, administrators, workers relatives for their own utilization for service payments, **MUST** be considered as an independent farm from the main one that is assigning the land
- c. If a land is operated independently by a household member for agricultural production, it **MUST** be considered as a second farm different from the farms operated by other household member
- d. Any land operated by persons who do not have any rights for agricultural use of the land on which the crops, trees or pastures are grown, **MUST** be considered as a farm or part of a farm
- e. Various economic agricultural production units under the same ownership, or under the same general direction, are considered separate farms if they are operated by different person
- f. agricultural production (including livestock and poultry) that is operated under the member’s management, and for which he/she has general technical economic responsibility, this land **MUST** be considered as a farm.
- g. If a cooperative, religious organization, government agency has a specified communal land delimited by fencing , or any other form of boundary demarcation, and if its use for agricultural production and specially for grazing purposes is supervised, then this land **MUST** be considered as a farm.
- h. Many farms are operated by farmers having other occupation(s) in addition to being a farmer.

i. The farm definition does not consider its land tenure. The land making up the farm could be total or partially owned, leased or rented, or under other forms (see Figure 2). If the land has different forms of tenures then the land associated with each form is considered a different parcel.

j. Economic units engaged solely in the following economic activities are not considered agricultural holdings because these economic activities are outside agriculture:

- Hunting, trapping and game propagation
- Forestry and logging
- Fishing
- Agricultural services.

The land used for these purposes are NOT considered as farm parcels, but as non-agricultural land. Other examples of non-agricultural land are: lakes, swamps, mangroves, buildings, schools, etc.

FIGURE 2: ONE FARM WITH THREE FORMS OF LAND TENURE

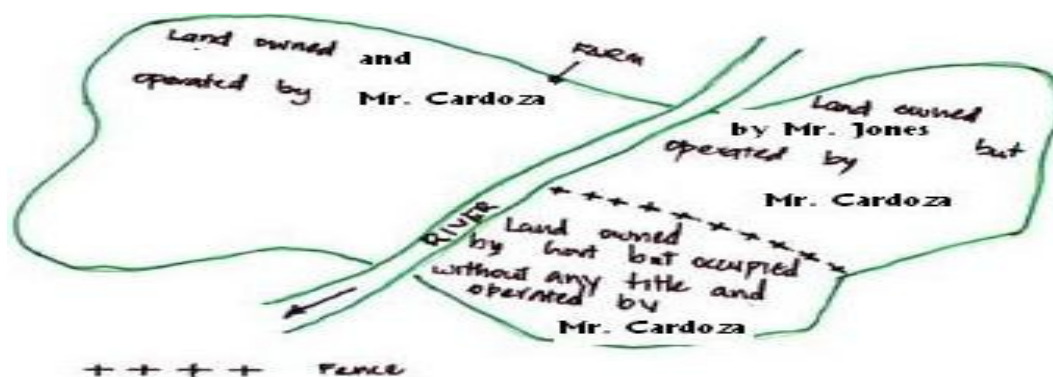
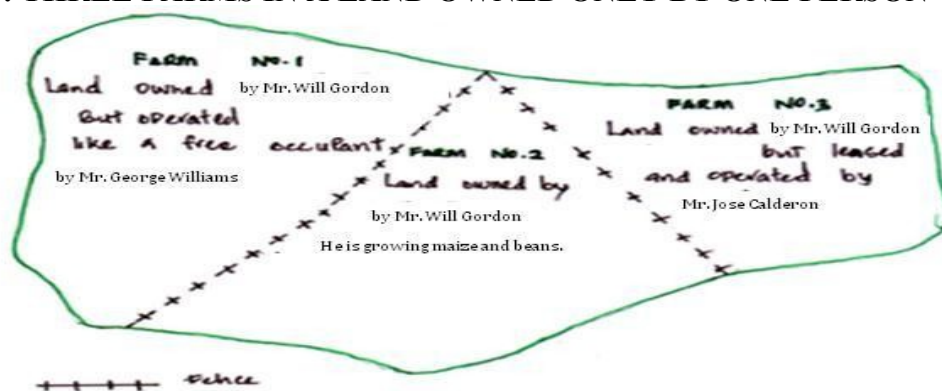


FIGURE 3: THREE FARMS IN A LAND OWNED ONLY BY ONE PERSON



Farmer - holder

- A. He/ she is a civil or judicial person who exercises management control over the agricultural farm operations and takes major decisions regarding resource use. The farmer has technical and economic responsibility for the farm and may undertake all responsibilities directly, or delegate responsibilities related to day – to – day work management to a hired manager. The work of a farmer can be material, when he conducts directly by himself the physical agricultural activities of the farm, or only intellectual, like in the case of that farmer who lives in the city, and travels periodically to the farm, or not, but takes the major decisions on the farm operation. It is important to take into account the following considerations in the determination of a farmer:
 - B. A one to one correspondence exists between a farmer and a farm.
 - C. In rural areas, a one to one correspondence between a farm (farmer) and a household is quite common. Thus households serve to identify farms.
 - D. In most cases the farmer is a person. In some households more than one farmer is possible, if each person operates different piece(s) of land. Then each piece of land is part of a different farm. However, if the agricultural operations and the production obtained in all those piece(s) of land are communal for all members of the household, there will be only one farmer and only one farm. In this case, the farmer will be the household member who spends the most time; if more than one person spent equal time, the farmer will be chosen accordingly to this priority: father, mother, elder son and so forth. The other household members participating in the work of the farm will be regarded as members of the labor force of the farm.
 - E. When two or more persons belonging to different households but from the same family operate the same farm, the farm will have legal status family and each one will be considered as a partner. The information related to the farmer household will be collected separately from each household, but the farm information from only one.
 - F. When two or more persons belonging to different households and from different families operate the same farm, each one will be considered as a partner. The information related to the farmer household will be collected separately from each household of the partners, but the farm information from only one.
 - G. A farmer can operate land that is owned and /or leased and / or under any other form of land tenure. g. A farmer can operate land without any rights to agricultural use of that land
 - H. A hired manager or administrator will not be considered as the farmer of the farm he is managing. However, if he has livestock and poultry in the land of the farm, which he operates, then he will be considered as a farmer of a farm without land.
 - I. When a manager, administrator or any worker of the farm, has received a land for his own use, then he will be considered as a farmer.

Field – plot

- A Field is a continuous piece of land inside a parcel devoted to one crop in pure or mixed stand on any other land use. A parcel may consist of one or more fields adjacent to each other. If a parcel has several crops (or mixed crops), the area of each crop is a field. If the crop has been planted on different dates, or on lands with different land tenures, then each of these situations is a field. The most common cases in the identification of fields are the following:

FIGURE 4: ONE PARCEL WITH THREE FIELDS

a) In the same parcel, there are several crops in pure stand or mixed stand (maize mixed with beans, improved exotic pasture, vegetables).

2018 Belize National Agriculture Census Field Data Collection Manual

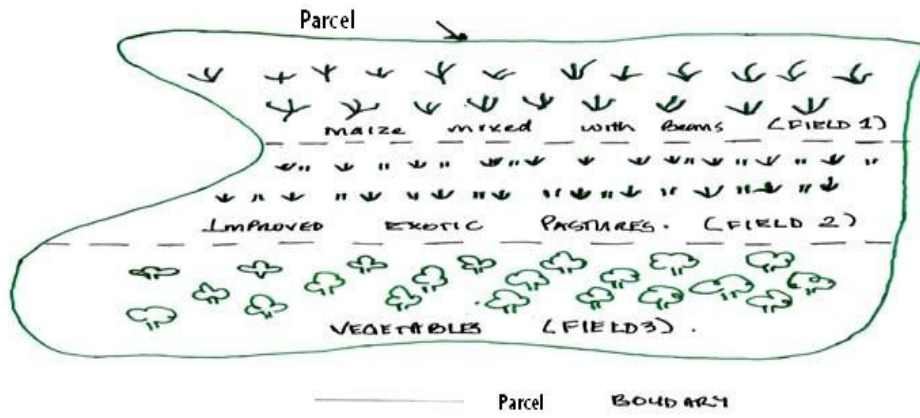
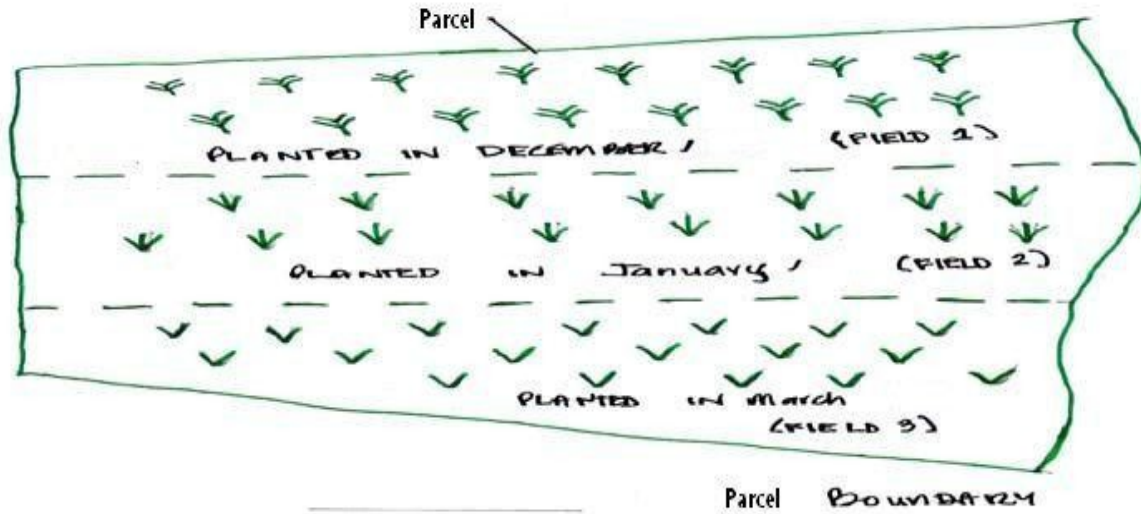


FIGURE 5: ONE PARCEL WITH THREE FIELDS



b. In the same parcel, there is one crop in pure or mixed stand planted in different dates (December, January, March.)

FIGURE 6: ONE PARCEL WITH THREE FIELDS

c. In the same parcel, there is one crop in pure or mixed stand (cassava) planted in a unique date (January) but harvested in different dates (February, March, and April); there are three fields.

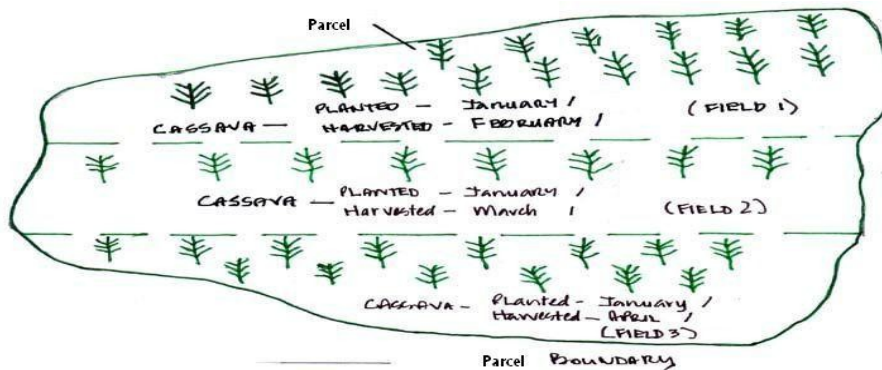
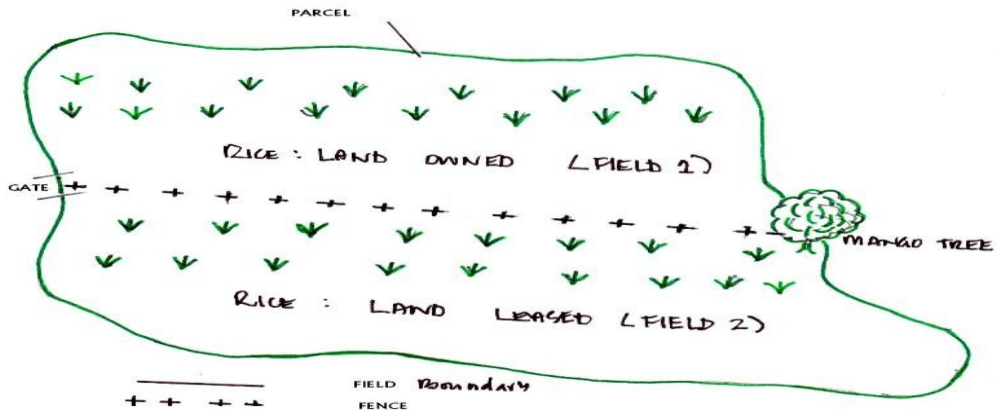
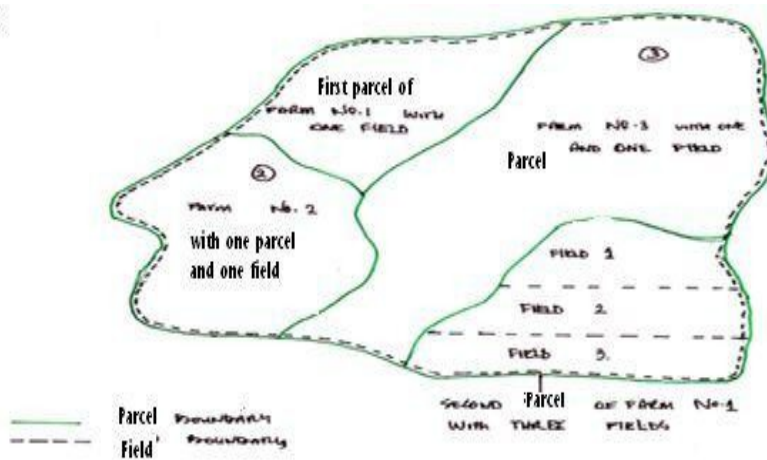


FIGURE 7: ONE PARCEL WITH TWO FIELDS - ACTUALLY TWO PARCELS



d. In the above figure, there is one crop in pure stand or mixed stand (rice), but with several forms of land tenure (owned and leased). Thus, there are two parcels because a parcel is associated with only one form of tenure

FIGURE 8: FARM 1 WITH TWO PARCELS; 2nd PARCEL WITH THREE FIELDS FARMS 2 AND 3 WITH ONE PARCEL AND ONE FIELD



e. A farm consists of one or more parcels; a parcel can have one or more fields.

2018 Belize National Agriculture Census Field Data Collection Manual
Census Year-It is the year from 4th June 2018 to 31st September 2019.

Census Day- It is the day when the census enumerator will effectively conduct the total interview to the farmer.

Respondent-The respondent is the person from whom data are collected. Normally he/she is the farmer or the operator of the farm. But sometimes, it could be a qualified person that knows very well about the information being collected, such as the manager, administrator, competent worker or an old farmer's relative.

Acre- It is a unit used in measuring land area in Belize. One acre is equal to 43,560 square feet or 208.71feet by 208.71feet.

Task or Mecate- The farmer may be more familiar with the farm area in terms of tasks. One task is equal to 0.125 acres.

Manzana-Some farmers also use a traditional Central American area measurement, although the actual size may differ from country to country. A manzana in Belize is considered to be equal to 2 acres.

QUESTIONNAIRE 2018 BNAC

The enumerator **MUST** obtain information about all parcels in the same district which belong to a farm. If the farmer operates a farm in two districts, then two questionnaires are needed.

FARM QUESTIONNAIRE BAC 2011 ITEM INSTRUCTIONS

GENERAL

A questionnaire is a communication device that structures a conversation between an interviewer and a respondent. The interview is a conversation with a purpose. Our purpose is to gather the information necessary to give the Ministry of Agriculture the best possible indication to report the land use and tenure, crops, livestock and other information collected in the 2018 BNAC.

Ensure that you are completely familiar with the 2018 BNAC questionnaire and that you fully understand these instructions before you start work.

ENSURE YOUR TABLET IS SUFFICIENTLY CHARGED AT ALL TIMES. If filling out paper questionnaire, make sure numbers and decimals are carefully written. Complete all the questions you are required to complete. Make all entries clear and easy to read.

Numbers should be consistent with the examples provided. Letters should be capital block letters.

Each answer must be written or typed entirely within the box or space provided. After completing a questionnaire quickly look through each column of the questionnaire page by page to see that all the information is complete

ITEMS ON THE 2018 FARM QUESTIONNAIRE

2018 Belize National Agriculture Census Field Data Collection Manual

- A. Farm verification and location through screening questions.
- B. Farm and farmer identification on census day.
- C. Farmer information on census day and during the census year
- D. Total land and actual land use parcel by parcel operated by the farm on the census day. E. Land tenure of the farm parcels on census day
- E. Vegetables, grains, Livestock, poultry and aquaculture in the total farm on the census day.
- F. Farmer's household demographics during last week and their participation in agricultural tasks
- G. Farm management (implements and issues) in the total farm during the census year. N. GPS coordinates of farm

SPECIFIC INSTRUCTIONS FOR COMPLETING THE FARM QUESTIONNAIRE 2018 BNAC

The questionnaire for the 2018 BNAC.

Information about the farmer, farmer household and all parcels that compose a farm with land or without land within the same district should be recorded in the questionnaire. If part of the farm is in another district, consider it as a second farm with a second questionnaire.

CONFIDENTIALITY

THE STATISTICS ACT PROVIDES FOR THE CONFIDENTIALITY OF THE INFORMATION COLLECTED IN THE 2018 BELIZE NATIONAL AGRICULTURE CENSUS. THE INFORMATION CAN ONLY BE USED FOR THE PURPOSE OF COMPILING STATISTICS AND NO INDIVIDUAL INFORMATION CAN BE DISCLOSED TO ANYONE OUTSIDE THE CENSUS ORGANIZATION.

SPECIAL ENUMERATION SITUATIONS

No Qualified Respondent Available

If a qualified respondent (farmer or non farmer, manager or administrator, component worker, old farmer's relative) is not available, the enumerator MUST get some information on when the respondent will be back and / or to find him. Then the enumerator will prepare a schedule for new visits.

The priority for the enumerator is to work as efficiently as possible and to collect information in the scheduled time. Within this constraint, if the qualified respondent would be available the next day, the enumerator should return the next day for an interview if the team will still be working in the area.

If all other work has been completed by the team in the area and only one or two farms are remaining, the priority is to contact some other informed source (a neighbor for example)for an interview and only as a last resort to record information as much as possible on the questionnaire by direct observation. In any case a questionnaire should be assigned with a clear indication in remarks (page 1) about the information sources. Many questions could remain without answers. Inform your supervisor about the particular farm.

Refusals

Be courteous and friendly. Make a diligent effort to obtain the farmer's cooperation by explaining the purpose of the 2018 BAC. If a refusal does occur, make your best estimate by observation. Do not try or deceptively try to obtain information. Inform your supervisor, who will try to get the data.

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2010/2011 Agriculture Census

Statistical Institute of Belize

