



GHANA STATISTICAL SERVICE



**GHANA 2023 INTEGRATED  
BUSINESS ESTABLISHMENT  
SURVEY (IBES)**

***Data for Prudent  
Business Decisions***

**INTEGRATED BUSINESS  
ESTABLISHMENT SURVEY (IBES)**

**FIELD OFFICER'S MANUAL  
(PHASE I)**

DECEMBER, 2023

# TABLE OF CONTENT

<b>TABLE OF CONTENT</b> .....	<b>ii</b>
<b>List of Tables</b>	<b>vi</b>
<b>List of Figures</b>	<b>vi</b>
<b>CHAPTER ONE</b>	<b>1</b>
<b>INTRODUCTION</b>	<b>1</b>
1.0 Preamble .....	1
1.1 Purpose of IBES I .....	1
1.2 Objectives of IBES I .....	2
1.3 Scope and Coverage .....	3
1.3.1 Scope of IBES I .....	3
1.3.2 Coverage .....	13
1.4 IBES Zones .....	13
1.5 IBES I Organisation .....	18
1.6 IBES Field Organization .....	18
1.7 Field Staff .....	19
1.8 Preparatory Work .....	20
1.9 Publicity .....	20
<b>CHAPTER TWO</b>	<b>20</b>
<b>RESPONSIBILITIES AND CONDUCT OF FIELD OFFICERS</b> .....	<b>20</b>
<b>CHAPTER THREE</b> .....	<b>35</b>
<b>ENUMERATOR'S FIELD KIT</b> .....	<b>35</b>
3.4 List of Materials .....	35
<b>CHAPTER FOUR</b>	<b>36</b>
<b>USE OF MAPS IN THE CENSUS</b> .....	<b>36</b>
4.1. Definition of maps .....	36
4.1.1: Maps used for data collection .....	36
4.1.2: Enumeration Area (EA) map .....	37
4.1.3: Type 1 Enumeration Area (EA) Map .....	37
4.1.4: Type 2 Enumeration Area (EA) Map .....	38
4.1.5: Type 3 Enumeration Area (EA) Map .....	39
4.1.6: Supervision Area (SA) Map .....	42
4.1.7: New localities in EA .....	42
4.1.8: Geographic Identification Codes (Geo-Codes) .....	42
4.1.9: Definition of Enumeration Zone .....	45
4.1.10: Purpose of EZs .....	45

4.1.11: Basis for EZ creation.....	46
4.1.12: Core dataset used for the creation of EZs.....	46
4.1.13: Steps to locating your EZ/Reading map/map orientation.....	48
4.1.15: Difficult EZs.....	49

## **CHAPTER FIVE 51**

### **FIELD PROCEDURES ..... 51**

5.1 Confidentiality .....	51
5.2 Planning Your Field Work.....	51
5.3 Identification of Establishment.....	52
5.3.1 Enumerating Physical Businesses.....	52
5.4 First Visit to the EZ .....	54
5.4.1 What to do during the first visit.....	54
5.4.2 Problems Arising from the First Visit .....	55
5.5 Meeting with Your Supervisor .....	55
5.6 General Enumeration Problems .....	56
5.6.1 Workers on leave .....	56
5.6.2 Person to give information not available.....	56
5.6.3 Call-Backs .....	56
5.6.4 Other problems.....	56
5.7 Field Checks .....	56
5.7.1 Check interviews and spot checks .....	57
5.8 Field Records .....	57
5.8.1 Use of notebook.....	57
5.8.2 Completing the summary sheet.....	57
5.8.4 Completion of your work.....	57

## **CHAPTER SIX 58**

### **THE STRATEGY FOR IDENTIFYING BUSINESS AND ENUMERATING BUSINESSES IN GHANA ..... 58**

6.1 Geography of Ghana.....	58
6.2 Modes of identifying establishments in structures listed during the 2021 PHC.....	58
6.3 Modes of Identifying Establishments under sheds .....	59
6.4 Modes of identifying businesses operating from an open space but fixed location .....	59
6.5 Modes of identifying mobile businesses.....	60
6.6 Modes of identifying establishments in structures not intended for its original purpose .....	60
6.7 Modes of identifying virtual businesses .....	60
6.8 Use of Signposts .....	60
6.9 Instruments and approaches for enumerating business establishments.....	60
6.10 Strategies for enumerating businesses .....	61

6.10.1 Enumerating Physical Businesses.....	61
6.10.2 Enumerating mobile businesses.....	62
6.10.3. Enumerating virtual businesses .....	62
6.11 Quality Assurance and complete coverage.....	63
6.12 Mitigating Strategies to Challenges.....	64
<b>CHAPTER SEVEN .....</b>	<b>66</b>
<b>PREPARING FOR AN INTERVIEW .....</b>	<b>66</b>
7.1 Introduction.....	66
7.2 Appearance and whom to Interview .....	66
7.2.1 Your Appearance.....	66
7.2.2 Whom to interview .....	66
7.3 Approaches to Enumerating Establishments .....	66
7.3.1 Questionnaire drop off and pick up.....	67
7.3.2 Direct interview procedure .....	67
7.3.3 Interrupted interview.....	68
7.3.4 Telephone interview .....	68
7.3.5 Online Questionnaire.....	68
7.4 Conducting an Interview.....	68
7.4.1 Interview technique .....	68
7.4.2 Building rapport with the respondent .....	69
7.4.3 Stress confidentiality.....	69
7.4.4 Length of interview.....	69
7.4.5 Remaining neutral.....	69
7.4.6 Do not change the sequence of the questions .....	69
7.4.7 Don't allow the respondent to rush through the interview .....	69
<b>CHAPTER EIGHT .....</b>	<b>70</b>
<b>ADMINISTRATION OF QUESTIONNAIRE .....</b>	<b>70</b>
<b>SECTION A       70</b>	
<b>IDENTIFICATION AND LOCATION OF ESTABLISHMENT .....</b>	<b>70</b>
<b>SECTION B:       74</b>	
<b>CONTACT DETAILS OF ESTABLISHMENTS .....</b>	<b>74</b>
<b>SECTION C       75</b>	
<b>HEAD OFFICE INFORMATION AND FEATURES OF ESTABLISHMENT .....</b>	<b>75</b>
<b>SECTION D:       82</b>	
<b>ECONOMICACTIVITIES OF ESTABLISHMENTS .....</b>	<b>82</b>
<b>SECTION E       104</b>	
<b>NUMBER OF PERSONS ENGAGED .....</b>	<b>104</b>

<b>SECTION F</b>	<b>107</b>	
<b>RECORD KEEPING AND EXTERNAL TRADE</b>		<b>107</b>
<b>SECTION G</b>	<b>110</b>	
<b>IDENTIFICATION OF GREEN ESTABLISHMENTS</b>		<b>110</b>
<b>SECTION H</b>	<b>112</b>	
<b>DIGITAL FINANCE</b>		<b>112</b>
<b>SECTION I</b>	<b>116</b>	
<b>REVENUE/TURNOVER</b>		<b>116</b>
<b>SECTION J</b>	<b>118</b>	
<b>CATEGORISATION OF RESIDENTIAL BUSINESSES</b>		<b>118</b>
<b>SECTION K:</b>	<b>119</b>	
<b>SECTION L:</b>	<b>120</b>	
<b>CONTACT PERSON'S DETAILS</b>		<b>120</b>
<b>CHAPTER NINE</b>	<b>121</b>	
<b>MOBILE BUSINESSES</b>		<b>121</b>
<b>CHAPTER TEN</b>	<b>125</b>	
<b>OPEN SPACE BUSINESSES</b>		<b>125</b>
Strategies to Ensure Complete Coverage of Open Space Businesses		125
Enumerating Open Space Businesses		126
Completing the Open Space Questionnaire		126
<i>SECTION A: IDENTIFICATION OF BUSINESS</i>		127
<i>SECTION B: CONTACT INFORMATION OF BUSINESS</i>		128
<i>SECTION D: PRINCIPAL ACTIVITY</i>		129
<i>SECTION E: PERSONS ENGAGED</i>		130
<i>SECTION J: REVENUE AND OWNERSHIP OF PRODUCTS</i>		130
<b>CHAPTER ELEVEN</b>		<b>131</b>
<b>TABLET BASICS AND CAPI USE</b>		<b>131</b>
Login Controls (ID Composition)		143
CAPI Navigation and features		145
Application versioning		146
2023 Integrated Business Establishment Survey CAPI Navigations		146
2023 Integrated Business Establishment Survey CAPI Features		146
2023 IBES CAPI Menu System		150
2023 IBES CAPI Assignment Creation		152
Practical Steps In Assignment Creation		153
<b>2023 IBES Data Transmission - Supervisor and Enumerator</b>		<b>158</b>
<b>GLOSSARY</b>	<b>161</b>	
<b>APPENDIX 1: DISTRICT CODES</b>		<b>163</b>

**APPENDIX 2: COUNTRY CODES ..... 172**  
**APPENDIX 3: OATH OF SECRECY..... 185**

**List of Tables**

Table 4:1: Geographic codes ..... 43  
Table 4:2: List of Sub metros within the Metropolitan Assemblies..... 43  
Table 4.3: Illustration of Components of EZ code..... 46  
Table 10.1: Users’ specific responsibilities..... **Error! Bookmark not defined.**

**List of Figures**

Figure 4.1: Example of Map..... 36  
Figure 4.2: Example of Type 1 EA (EA numbers 057)..... 38  
Figure 4.3: Example of Type 2 EA (EA numbers 058,)..... 39  
Figure 4.4: Example of Type 3 EA (EA numbers 031)..... 40  
Figure 4.5: Example of SA Map ..... 42  
Figure 4.6: Characteristics of e-zone maps ..... 45  
Figure 4.7: Sample urban EZ map..... 47  
Figure 4.8: Sample rural EZ map ..... 47

# CHAPTER ONE

## INTRODUCTION

### 1.0 Preamble

The Integrated Business Establishment Survey (IBES) is an economic census to be conducted on the full set of economic units across all sectors of Ghana's economy. These economic units include all establishments undertaking some economic activity in Ghana. IBES is structured in two phases, IBES I and IBES II. Phase I is a census of all establishments/businesses in Ghana to produce a business register for Ghana. IBES II will be a sample survey which will focus on detailed operational activities of businesses in all sectors of the economy. The Register will serve as a sampling frame for the selection of establishments for the second phase of IBES. Generally, the census will be conducted on the three main economic sectors (Institutional Agriculture, Industry and Services). The Agricultural census and the Ghana Living Standards Survey focus on the economic activities within the household whilst the 2023 IBES focuses on economic activities of both households and non-household.

### 1.1 Purpose of IBES I

The purpose of Phase 1 is to obtain an up-to-date information and accurate description of all businesses in Ghana. This information is necessary to assist in planning and decision-making to improve productivity.

#### Concepts and Definitions

The following concepts have been used in the introduction to IBES I.

1. **Micro businesses:** Engages 1-5 persons
2. **Small Businesses:** Engages 6-30 persons
3. **Medium Business:** Engages 31-100 persons
4. **Large Businesses:** Engages 101 or more persons
5. **For-profit businesses:** A business which aims at earning profit through its operations and is concerned with its own interests
6. **Not-for-profit businesses:** A Business which aims at providing services, facilities or assistance to the government and communities
7. **Formal Businesses:** These are registered businesses with regulatory authorities such as Registrar General's Department, Ghana Revenue Authority. They keep formal accounting records and pays tax.
8. **Informal businesses:** Businesses that are not registered with any regulatory authority such as Registrar General's Department, Ghana Revenue Authority. They do not keep official accounting records and do not pay tax
9. **State establishments:** Establishments that are largely regulated, owned or controlled by the central or local government e.g., Ministries, other Government Departments and Agencies, District Assemblies, National Mobilization Programme, etc.
10. **Private establishments:** Establishments owned and controlled by a private person(s)

## **Structure of the Training**

1. There are 16 presentations to be covered
2. Ten presentations are based on the content of the questionnaire and 6 other presentations
3. The training will involve demonstration of practical experiences, asking and answering of questions
4. There will be quizzes and reading assignments
5. Field practices
6. Role plays are key
7. Group discussions

## **1.2 Objectives of IBES I**

The main objectives of the census are to:

- a) Obtain data on economic activity and employment as a basis for government and businesses decision making;
- b) Measure employment by economic activity, region, and district.
- c) Collect internationally comparable data on the structure and activity of all businesses.
- d) Obtain a framework that will enable the Ghana Statistical Service update the business register periodically;
- e) Obtain a sampling frame that will enable the Ghana Statistical Service to conduct the second Phase of the Integrated Business Establishment Survey (IBES);
- f) Obtain a sampling frame that will help conduct other surveys.
- g) Classify businesses into green establishments and provide the basis to measure the green economy in IBES II;
- h) Provide detailed analysis of the firmographics to inform business decision-making
- i) Provide indicators to measure firm growth in-country and across the country using the SDG and other indicators;

## **Policy Relevance of IBES**

The relevance of the data from the IBES cannot be overemphasised. The data is relevant to both government and private sector for several policy actions including:

1. the provision of employment figures for all sectors which will be readily available for policy and research;
2. helping implement measures to address business death rate;
3. updating the performance of the overall economy and guide future policies;
4. forming the foundation for Ghana's Gross Domestic Product (GDP);
5. helping make informed decisions about the health of the economy;
6. being used to assess business activities and develop programs to attract new businesses;
7. helping private businesses to identify possible new business locations based on other, similar businesses in an area;
8. being used by businesses that sell their products to other businesses to evaluate markets and plan sales strategies for growth; and
9. helping the private sector make evidence-based business decisions based on excellent data that gives firms a competitive advantage.



## **1.3 Scope and Coverage**

### **1.3.1 Scope of IBES I**

Businesses within the 2023 IBES have been categorized as:

1. Businesses operating in structure:
  - 2021 PHC defined structure
  - Non-2021 PHC defined structure
2. Businesses operating in an open space but Fixed location
  - a. Open Space but independent of a Market
  - b. Open Space in and around a Market
3. Businesses operating in structures not intended for its original purpose
  - a. Churches in school building
  - b. Sunday market
4. Mobile businesses
  - a. Vehicle/Animal-assisted mobile businesses: mobile vans, carts (sellers of phone accessories on trucks), selling ice cream on bicycle, selling coconut in a wheelbarrow, selling on an animal, etc.
  - b. Hawking
5. Virtual establishments/businesses
  - a. Examples of this include
    - i. Jumia
    - ii. Tonaton
    - iii. Businesses using social media platform (WhatsApp, Instagram, Facebook, etc.)

### **Definition of Business Activities**

These are activities for producing goods and services, either for-profit or non-profit, in which their mode of operations defines the type of businesses in the Ghana 2023 IBES.

#### **1. Business operating from 2021 PHC defined Structure.**

These are businesses operate from structures with enclosure as defined in the 2021 PHC. The 2021 PHC defines a structure as a separate and independent building or an enclosure either completed or uncompleted. These structures are either used for residential or non-residential activities. However, IBES covers structures in the 2021 PHC structures that have business activities.

They are usually found in structures that are in fixed location. These types of businesses can be traced at any time when the need arises. Examples of businesses include:

**HOTEL**



**UNIVERSITY**



**SCHOOL**



**CLINIC**



**SHOP**



**STALLS**



**STORES**



**MOSQUE**



**CHURCH**



**WASHING BAY**



**CARPENTRY SHOP**



**SHRINE**



**SHOP**



**SUPERMARKET**





## 2. Businesses operating from a Non-2021 PHC Structure

Business operating from a Non-2021 PHC defined Structure are businesses who operate in structures without enclosure. The 2021 PHC excluded structures without enclosures. The 2023 IBES will identify all structures, including those without enclosures (e.g., sheds) but are used for business activity. These shall be referred to as Non-2021 PHC Structures. Examples of such businesses include:





### 3. **Businesses operating in an open space but fixed location**

These businesses operate in fixed locations but not in structures and are exposed directly to weather conditions. Open space businesses include those operating under umbrellas, on the floor, and on table-tops. There are two main types of businesses operating in open but fixed locations. These are:

- a. **Open space independent of a market:** These business activities are undertaken not in stalls or under sheds outside designated market areas for such activities. Typically, these are found in residential neighbourhoods.





b. **Open space in and around the market:** These business activities are undertaken not in stalls or under sheds but around designated market areas.







**4. Businesses operating in structures not intended for its original purpose**

These are establishments operating temporarily in the same location but in structures. These include churches in classrooms operating only in the evenings or Saturdays, Sunday markets, etc.

*Business operating temporarily in front of a shop*



*Church in School Building*



5. **Mobile businesses:** These are businesses that operate not in a fixed location and not in structure. Typically, they operate while in motion.

a. **Vehicle-assisted mobile businesses:** These business activities are undertaken not in structures or fixed locations but are mobile with the aid of a vehicle. For example, selling ice



cream in a van or bicycle, selling bread in a van, selling bitter cola, dates fruit in a wheelbarrow.



- b. **Hawking business:** These business activities are undertaken not in structures or fixed locations but are mobile. These include vendors who travel or move on foot from place to

place, selling goods or providing services. For example, street hawkers, shoe-shine boys, ice-water sellers, etc.



6. **Virtual Businesses:** These are business activities whose transactions are virtual (electronic). It includes buying and selling online or providing an online service.





### **1.3.2 Coverage**

All establishments will be covered irrespective of the size of the business.

## **1.4 IBES Zones**

The IBES zone is the smallest unit that will be assigned to an enumerator. Enumerators will visit all establishments within their zones as has been assigned to them.

Enumerators are responsible for ensuring that all establishments on the list of their zones are enumerated. In each case, the enumerator must carry out accuracy and completeness checks before leaving the establishment. They are also responsible for making a field summary of the completed questionnaire.

### **Modules in the Questionnaire**

There are ten modules in the questionnaire as follows:

1. Identification and contact of establishment
2. Head office information and features of establishment
3. Economic activities of establishments
4. Persons engaged
5. Record keeping and external trade
6. Identification of green establishments
7. Digital finance
8. Unique identity of establishment
9. Categorisation of residential businesses
10. Turnover or revenue

### **Output from IBES**

#### ***Examples of reports and statistics from IBES I***

##### **1. Regional Spatial Business Report**

- Spatial distribution of businesses by region Spat
- Spatial distribution of persons engaged by region Spat

- Spatial distribution of persons engaged by establishment Spat

## 2. Summary Report

- Establishment by principal activity Esta
- Number of businesses by sector Nu

## 3. National Employment Report

- Statistics on number of persons engaged by sex Stati
- Owner's nationality by size of business Ow
- Number of persons engaged by sector Nu

## History of Economic Census

Economic census started as National Industrial Census in 1987 and 2003. The name changed to Integrated Business Establishment Survey (IBES) in 2013. The 1987 and 2003 looked at only the industry sector while the 2013 IBES looked at all the three sectors (Institutional Agriculture, Industry and Service) but excluded businesses not in structures. The 2023 IBES will however, look at all the three sectors of the economy including businesses that are not in structures such as those in open spaces and mobile businesses.

## What is New in the 2023 IBES I?

Unlike previous economic censuses, the 2023 IBES introduced new topics to the questionnaire and also new modes and procedures of data collection. The following are new in the 2023 IBES.

1. The 2023 IBES has expanded its scope to include:
  - a. Businesses under sheds (structures without enclosure)
  - b. Businesses in structures intended for other activities
    - E.g., A residential structure also used as a bakery
    - A garage used for hairdressing saloon
  - c. Businesses in open spaces but fixed locations
  - d. Mobile businesses
  - e. Virtual businesses (Tonaton, Jumia, Social Media, etc)
2. Linking of business and population registers
  - Relating household level data to business data
  - Collaborate with other institutions to relate population and business data
3. Linking of business registers with other MDA databases
  - This will help in updating the business register between intercensal periods (by including new businesses and removing businesses that are no more in existence)

4. Taking of GPS coordinates to show the spatial location of businesses
5. Automation of data collection and processing
  - The use of CAPI and online questionnaire
  - The use of interactive map
  - Programming of ISIC to select appropriate principal activity of businesses
  - The use of dashboards to monitor coverage, number of completed questionnaires and generate basic statistics
  - Quality control by Data Quality Monitors (DQM)
6. Additional modules in questionnaire
  - Digital finance
  - Green establishments

### **Legal Authority and Confidentiality of the Information**

The 2023 IBES will be conducted in accordance with the Statistical Service Act, 2019 (Act 1003). As an IBES official, the law allows you (the enumerator) access to any premises, compound, or house for the purpose of enumerating businesses. However, the law forbids you from conducting yourself inappropriately. It allows you to only ask such questions as are necessary to complete the questionnaire or check entries already made. Penalties are specified for members of the public who fail to furnish enumerators with the required information or enumerators who fail in their duties. The law particularly stresses on confidentiality of the information collected from individuals.

### **Legal Authority for the Census**

The Legal Authority for conducting the Integrated Business Establishment Survey (IBES) is the Statistical Service Act 2019 (Act 1003). This Law empowers the Government Statistician to conduct statistical surveys and any Census in Ghana.

### **Legal right to enter premises to conduct the Census**

Any person authorized by the Government Statistician in writing is empowered to enter any premises within reasonable hours (e.g. between the hours of 6 a.m. and 6 p.m.) to enumerate businesses. This does not mean that you must work only within these hours. It may be necessary for you to work outside these hours on many occasions depending on the respondent's time schedule. Any person who hinders or obstructs any IBES Officer in the execution of his/her duties is guilty of an offense with the penalty of a fine or a term of imprisonment or both (Statistical Service Act 2019, Act 1003).

### **The Act requires the public to respond to Census enquiries**

The Act also stipulates penalties for failure to furnish information and for making false statements. The penalty is a fine or a term of imprisonment or both (Statistical Service Act, 2019, Act 1003).

### **The Act demands careful handling of documents and logistics**



It is important to note that there is a penalty for the destruction, defacing, or mutilation of forms or other documents and logistics connected with the IBES. The relevant section of the Statistical Service Act 2019, Act 1003 reads as follows:

“Any person, who, without lawful authority, destroys, defaces or mutilates any schedule, form or other document containing particulars obtained in pursuance of the provisions of this Act shall be guilty of an offense and liable on summary conviction to a fine or to imprisonment for a term not exceeding twelve months or to both fine and imprisonment”.

### **Confidentiality of Census information**

It must be emphasized that the information you obtain is **CONFIDENTIAL** and shall only be used to compile statistics. The law places a restriction on publishing particulars on individuals and that all data are published as numerical tables, summaries and general conclusions. You are not permitted to disclose any information to anyone who is not an authorized officer, nor should you leave the information where others may have access to it. Disclosure of any information obtained in the IBES without lawful authority is an offence liable to a fine or a term of imprisonment or both (Statistical Service Act 2019, Act 1003). You will administer the questionnaire using the CAPI. On no account should you allow any unauthorized person(s) to use your tablet or any of the IBES forms.

All the IBES information you receive must be kept confidential. Under no circumstance must you reveal any information to anyone unless he or she is a sworn employee of the Ghana Statistical Service (GSS) and needs it for official purposes.

### **Taking of Oath of Secrecy**

To enforce this confidentiality, you will be required to take an oath of secrecy (see Appendix 2). In the oath-taking, you will promise to fulfill your duties as an enumerator faithfully and honestly and you will promise not to disclose any information which comes to your knowledge because of your engagement as an enumerator/supervisor. This oath is prescribed by the law and is administered to all the staff of the Statistical Service as well as all other persons engaged to perform a duty under the Statistical Service Law. If you break your oath, you will be guilty of an offense and liable to punishment, which is either a fine or a term of imprisonment, or both (Statistical Service Act 2019, Act 1003). Any person who fails to take the oath will not be allowed to work as an enumerator for the IBES.

### **Security Guidelines**

1. Always keep minimal cash when stepping out
2. Keep all equipment and gadgets (i.e., tablets, power banks, etc.) inside your bag always except when administering a questionnaire
3. Avoid shortcuts, dark routes, suspicious neighbourhoods, etc. while moving from one place to the other
4. Avoid indulgence in any kind of arguments with natives
5. Leave behind expensive articles such as jewellery at home
6. If possible, avoid working during odd hours i.e., night or dawn.

7. Identify multiple safe points (open space) within the Supervisory Zone (SZ) to converge with your Supervisor. Try as much as possible to rotate the meeting points
8. Be careful when visiting construction sites
9. Wear nose masks at production points (e.g., manufacturing companies)
10. Be mindful of where the interview takes place
11. Observe the body language of the respondent
12. Avoid sensual conversations and physical contacts
13. Avoid indecent exposure

## **Health and Safety Guidelines**

### ***Precautions to consider:***

1. always keep a clean bottle of water on you
2. wear face mask anytime you step out of your room.
3. physically distance yourself – at least 2 metres from any person.
4. use an alcohol-based hand sanitizer with at least 70% alcohol.
5. always wash hands first with soap and water if hands are visibly dirty.
6. cover your nose and mouth with disposable tissue when coughing or sneezing, and then properly dispose of the tissue.

## **1.5 IBES I Organisation**

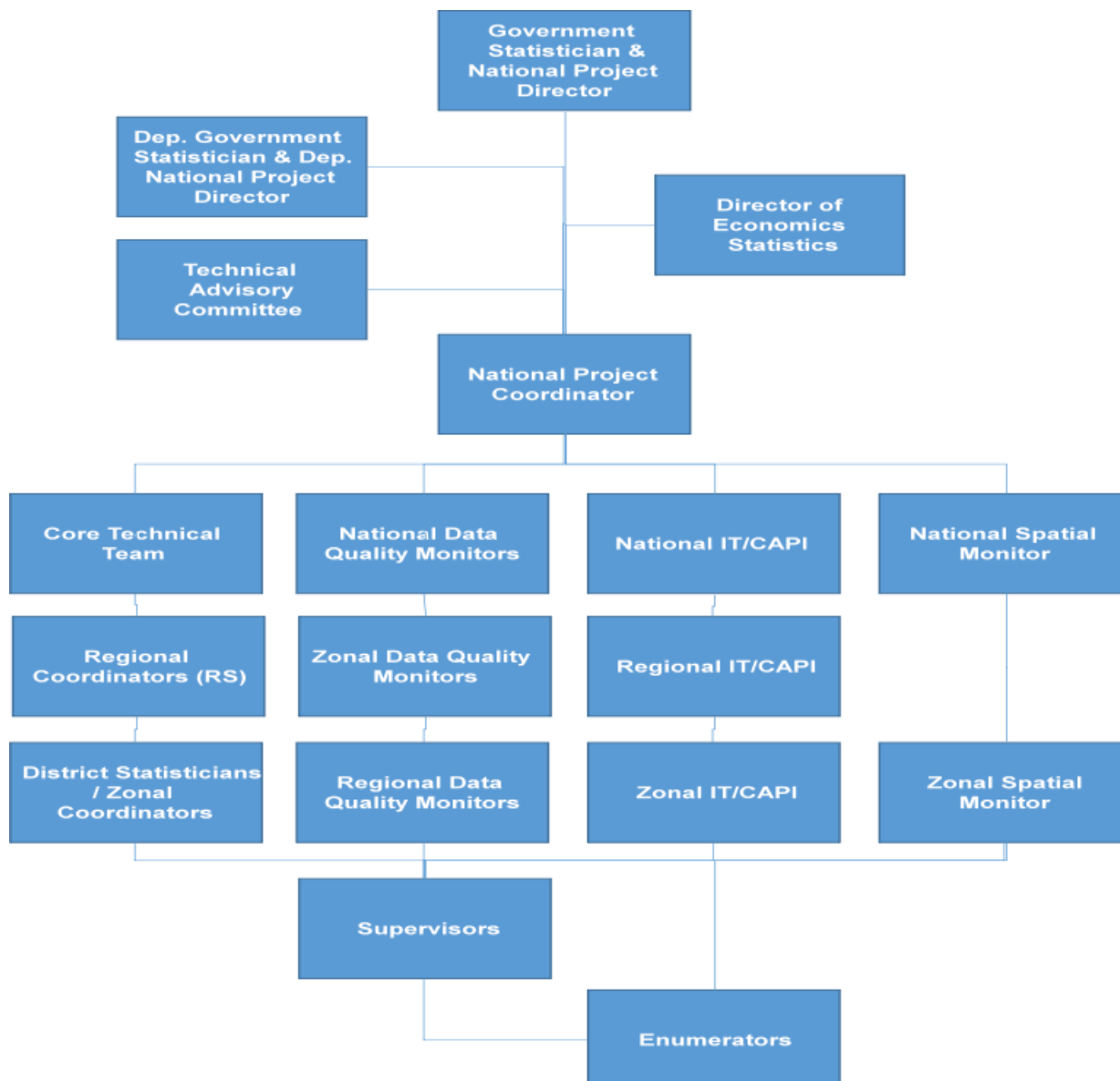
The IBES I is planned and organized by the Industrial Statistics Section of the Ghana Statistical Service. The IBES organization is headed by the Government Statistician and is composed of three major units. These are:

- Design and Data processing
- Field Operation
- Administration

## **1.6 IBES Field Organization**

### **IBES ORGANOGRAM FOR PHASE I**





## 1.7 Field Staff

### Field Monitors

The monitoring staff from the IBES Secretariat will visit the field staff in the regions to ensure that quality work is being done and help address problems which the field staff may encounter. They will also act as liaison officers between the Regional Statisticians and the Census Secretariat.

### Regional Statistician

The Regional Statistician will be responsible for the overall supervision of the IBES in their region. He or she will provide administrative support to the IBES. In particular, they will assist the District zonal coordinators in dealing with difficult establishments and provide transport and communication link with the IBES Secretariat. In addition, the Regional Statistician is to ensure that the work is completed on schedule in his or her region.

### **District Statistician**

The District Zonal Coordinator will be the supervisor of the IBES in the district and will be responsible for the overall supervision in his or her district. In particular, he or she will assist the supervisors in dealing with difficult establishments, provide support for field enumerators and serve as the communication link between the Regional IBES Secretariat and field officers. In addition, the District Zonal Coordinators will ensure that the work is completed on schedule and collect all tablets from field staff. He or she must ensure that proper editing and the necessary corrections are done in the field before syncing the data to headquarters.

### **Supervisor**

The supervisor, whose task is to supervise the enumerators in his or her team, will report to the District Zonal Coordinators. He or she will assign work to his or her enumerators, observe their interviews, and edit completed questionnaires received from them. He or she will also assist the enumerators to resolve problems that may occur including uncooperative respondents.

### **Enumerator**

An enumerator is assigned to enumeration zone. He or she is to visit all the establishments in the EZ, explain the purpose of the IBES, give assistance with the completion of the questionnaire, review the questionnaire for completeness and accuracy and obtain any additional information that may be necessary. He or she is to make a field summary for his or her enumeration zone.

## **1.8 Preparatory Work**

The preparatory activities began in 2021 and data is expected to be collected in June 2023. Data processing is expected start when field commence.

## **1.9 Publicity**

The IBES is an important national undertaking. There will be publicity before the enumeration commences. This will involve advertisements, announcements, and radio or television discussions.

# **CHAPTER TWO**

## **RESPONSIBILITIES AND CONDUCT OF FIELD OFFICERS**

### **Introduction**

The success of IBES depends to a large extent on how well respondents co-operate in giving the needed information. By the time you approach the people, every effort would have been made already to publicize the IBES through all the important publicity and education channels such as the Press, Television, Radio, Chiefs, Assemblymen and Assemblywomen, Unit Committee Members and Schools, to obtain the co-operation of business owners. Nevertheless, your success as a Field Officer depends

greatly upon your approach and conduct. This manual is designed to help you understand clearly your responsibilities and perform them well.

## **Concepts and Definitions**

### ***Responsibility***

This refers to the duty of having authority or control over something or someone. If you are responsible for something, you will be held accountable for the outcome of what comes from it, as this was your duty.

### ***Conduct***

This refers to the way a person behaves, especially in a particular place or situation.

## **Your Engagement as Field Officer**

Field Officers have uniquely been selected for this exercise and as such they must be prepared to think beyond the monetary gains from the exercise. You have been placed higher than anyone else on the IBES simply because a lot depends on you for the required data. GSS will not be able to get the needed data without you.

As a result of the forementioned reasons, Field Officers should see themselves as important to the IBES for the following reasons:

1. be part of a national exercise that will be used for business decision making for the next ten years;
2. opportunity to visit establishments which ordinarily they will not be able to visit;
3. opportunity to talk to businesspersons (Managers, CEOs, Directors);
4. opportunity to raise your self-esteem and confidence; and
5. addition to one's knowledge (a learning opportunity for Field Officers).

## **Responsibilities of Enumerators and Supervisors**

### ***Responsibilities of the IBES Field Enumerator***

As an Enumerator, you play an important role in the IBES operation. You are one of a team of about 12,000 Enumerators with the common goal of obtaining accurate and complete information about all businesses which qualify to be enumerated in the country. Your job is to ask questions and to record the answers correctly. It is the single most important job in the IBES. The quality of the IBES data will depend to a large extent on the effort you make and the thoroughness with which you and your fellow Enumerators carry out your tasks.

The information you collect becomes the foundation upon which all IBES results will be based until another economic census is conducted. You must make every effort to obtain complete and accurate answers and to record them carefully and correctly. The IBES results cannot be better than the data you obtain. The success of the exercise largely depends upon the public's cooperation, and it is your job to obtain this by being polite, tactful, and patient at all times.

***You must work through to the end of the IBES data collection exercise***

You are expected to work conscientiously to complete work in the area assigned to you in good time. You should not abandon the work before the end of the exercise except for the reason of sickness. In case you become ill or incapacitated while working on IBES, you must report this immediately to your Field Supervisor or, in his/her absence, to a higher authority so that he or she can arrange for your replacement.

***You must work as a full-time enumerator without engaging in any other activity during the exercise***

Take note that your work is full-time. You are strictly forbidden to engage in any other activity such as the teaching of extra classes, petty trading, political or religious propaganda/activity during the period of enumeration.

***You must work without the assistance of unauthorized persons***

You must not permit anybody, not even members of your family or household, to help you with your work. Only sworn IBES Officials are allowed to help you. Note that punitive action would be taken against you if found culpable.

***You must visit all businesses and avoid omission and double counting***

You must not miss any business in your EZ or enumerate any business twice to avoid omission and double counting.

***You must be a team player***

The IBES operation is teamwork. Enumeration is not complete until work in the whole Supervision Zone (SZ) is completed. Your supervisor or District Statistician can send you to assist enumeration in any Enumeration Zone (EZ) in the district or a nearby district if there is a need.

***Follow instructions***

It is your responsibility to clearly understand and follow instructions on the questionnaires and in this manual. It is necessary that each enumerator ask the IBES questions as indicated in the questionnaire and use identical definitions and procedures. Instructions and procedures in the manual must be strictly followed.

***You must complete your assignment***

You are expected to work hard and complete the area assigned to you within the allotted time. You will not be permitted to resign once you have started enumeration. However, in case you become ill or incapacitated whilst working on the census you should report immediately to your supervisor so that a replacement could be arranged immediately.

**Restrictions**

***No other activities during enumeration***

You are prohibited from engaging in activities such as petty trading, political or religious propaganda during the enumeration. People who are in full-time employment elsewhere cannot take part in the IBES without a formal release from their employers. Students who are fully engaged in educational institutions which are in session during the training and enumeration periods cannot take part in the census.

***No unauthorized persons should help you in your work***

You are not permitted to delegate your work to anyone. No one can help you except your supervisor or another enumerator as directed by your supervisor.

***No discussion of IBES work***

You are not to discuss your work with anyone except your supervisor, or an authorized IBES staff.

***Disciplinary proceedings***

If you break any of the above rules, disciplinary action will be taken against you. This may include termination of work or institution of legal proceeding against the offender

***Continuation of your Appointment***

***Performance of Duties***

The continuation of your appointment is conditional on the satisfactory delivery of your duties as an enumerator and the maintenance of a high standard of behaviour. In this respect, you must keep in mind that you represent the Ghana Statistical Service (GSS) and as such must conduct yourself professionally. Note that GSS relies on the goodwill and cooperation of respondents in accessing data from the public. Enumerators would be dismissed if they misbehave or disrespect respondents or supervisors.

### ***Absenteeism***

Any person who is absent from training or the enumeration without prior approval from the IBES Coordinator, Regional Statistician or his or her field supervisor, will be dismissed from the exercise.

### ***Disruptive Influence***

Any enumerator, supervisor or field coordinator who in the judgment of the IBES Coordinator creates a disruptive influence will be dismissed from the IBES.

### ***Breach of Confidentiality***

Disciplinary proceedings will be taken against anyone should you breach the confidentiality requirements of the IBES. In addition, you may face legal prosecution.

### ***Duties of the IBES Field Supervisor***

The IBES Field Supervisor is responsible for all IBES work in the SZ assigned to him or her. Specifically, the Supervisor is to:

1. Assign EZs to enumerators in your SZ before enumeration commences;
2. Report to the DQMT and call for support where necessary; e.g. reassigning workload to enumerators;
3. Ensure that all businesses are enumerated;
4. Check for duplicates and partial save cases for corrections and completeness;
5. Sync data with enumerators;
6. Review the work of enumerators;
7. Conduct re-interviews;
8. Sync data to HQ;
9. Ensure to sync with enumerators anytime there is a CAPI update;
10. Run reports on EAs for omission and correction;
11. Check and assist enumerators to address the challenges they may encounter during enumeration;
12. Report any problem encountered to the Zonal Coordinator; and
13. Submit a written report on each EZ and for the entire IBES I exercise to the IBES secretariat.

### **What do to before Enumeration as a Field Supervisor**

#### **i. Assign EZs to enumerators**

The supervisor will assign EZs to the enumerators

It is teamwork; thus, no enumerator can claim to have completed until the team finishes.

#### **ii. Manage adequate workload of enumerators**

Where there is evidence that there is a disproportionate allocation of workload, get the enumerators with less workload to assist those with excessive workload.

Where all enumerators are overloaded report to your Regional Statistician through the District Statistician.

### **iii. Ensure that Enumerators check their EZ boundaries**

Before enumeration, Enumerators should check their:

EZ boundaries when the EAs in the EZs are type 1 and 2

localities within each EZ if the EAs are type 3.

Assists them on how to read and interpret the EZ maps and find the boundaries on the ground.

### **iv. Preparation of itinerary**

Ensure that Enumerators prepare their itinerary for the day.

Prepare their own itinerary for visiting the Enumerators in the field and share with the IBES secretariat.

### **v. Distribution of field logistics**

Distribute tablets and its accessories, and field materials (ID cards, bags, IBES jacket, contract letters, Maps, etc.) to assigned enumerators.

Complete the appropriate part of the Field Supervisor's Materials Receipt Form

### **vi. Help in publicising the IBES**

Contact local opinion leaders to help publicise IBES in area of operation.

## **What to do during Enumeration as a Field Supervisor**

### **i. Keep in touch with your Enumerators**

Check enumerators' work regularly for consistency and errors, encourage them and help address their errors.

Check for duplicates and partially saved cases for corrections and completeness.

As a supervisor, your actions and inactions can affect the quality of data positively or negatively.

### **ii. Replacement of Enumerators**

The IBES secretariat will have some reserve Enumerators. During the enumeration period, if any of your Enumerators should fall sick or not doing their work as expected, report to your Regional Statistician through the District Statistician for possible replacement.

### **iii. Syncing**

Enumerators are expected to synchronize (sync) their data to you, the supervisor, immediately after each day's work and also sync same data to HQ after error checks (**Remember NO SYNC NO SLEEP**).

Remain in the field till all the Enumerators have submitted their work and synced successful.

**iv. Maintain effective control over your responsibilities**

Take all aspects of the work seriously and be confident on the job.

Enumerators would be serious with their work if you are serious with yours.

**v. Conduct Re-interviews in your SZ**

Supervisors must conduct re-interviews in 10 randomly selected establishments to ascertain the quality of data collected by their respective enumerators.

Re-interviews involve supervisors administering a shorter questionnaire. Questions include:

GPS Coordinates of the establishment

Name of establishment

Locality

Suburb of locality

Type of structure

Principal activity

**What to do after Enumeration**

***i. Review of the Completed Work***

Examine the questions and responses carefully for any anomaly.

Send the Enumerator back to the field for corrections if there are any.

***ii. Dealing with Omissions and Errors***

If from your check you observe that more than 10% of rows/persons have errors in the work of any Enumerator, contact IBES secretariat immediately and discuss the problem with him or her.

***iii. Retrieve IBES documents and materials from Enumerators***

Collect all the materials that are returnable including the tablets, ID cards and hard copy questionnaires (completed, spoiled, cancelled or unused) from the Enumerators and hand them over to the IBES secretariat.

Sign the Enumerator's Material Receipt Form and hand it to the Enumerator upon receipt of all returnable items.

NB: You will be surcharged for failure to submit any of the returnable items.

***iv. Handover materials to the IBES secretariat***

Book an appointment with the secretariat before seeing them, as other Field Supervisors may also wish



to see them at the same time.

When you hand over the documents to the secretariat, they will check them again with you, and you must make sure that you obtain their signature on your copy of the Field Supervisor's Material Receipt Form.

***v. Submit a written report on each EZ supervised to the IBES secretariat***

Write a report on the enumeration and supervision process. This should cover challenges observed and how these challenges were resolved.

As we have noted, training is a continuous process that does not end with classroom sessions. Observation and supervision during fieldwork are part of your training. As a supervisor you play an important role in this regard to ensure the quality of the exercise. The supervisor will:

- Observe some interviews to ensure that it is conducted in the right manner and interpreting concepts correctly.
- Review each questionnaire to be sure it is complete and internally consistent.
- Meet with enumerators on a regular basis to discuss performance and give instructions or work assignments.

**Likely Challenges and Actions on the Field**

***Challenges for supervisors' attention include:***

- i. Boundary disputes
- ii. Misalignment of EA boundaries
- iii. Uncooperating or difficult respondents
- iv. Temporal closure of businesses causing delay in responses
- v. Syncing problems
- vi. Uncooperating or absent enumerators

**Actions of supervisor**

- i. Use all legal means to contact workers or owners of temporally closed businesses and provide information to enumerator to be used for data collection.
- ii. Work with the District IT support team to address syncing challenges.
- iii. Report all uncooperating or absentee enumerators to the Regional Statistician through the District Statistician for replacement.
- iv. Discuss boundary disputes with opinion leaders, assembly members and report to District Statistician for assistance.
- v. Confirm misalignment of EA boundaries and report to the Regional Statistician through the District Statistician.
- vi. Assist the enumerators to continue persuading uncooperating respondents until they complete the questionnaire.
- vii. Solicit assistance of opinion leaders and the district assembly in persuading the uncooperating respondents.

## Conduct of Field Officers

As Field Officers, you must be conscious of the following:

1. adhere to establishment entry guidelines;
2. assure confidentiality of responses;
3. always conduct the interview in a language that is understood by the person who is answering the questions;
4. be patient and tolerant;
5. always be courteous and friendly;
6. make the respondent feel at ease; and
7. do not intimidate or offend any person.

## Appearance of Field Office




### *The clothes you put on matters*


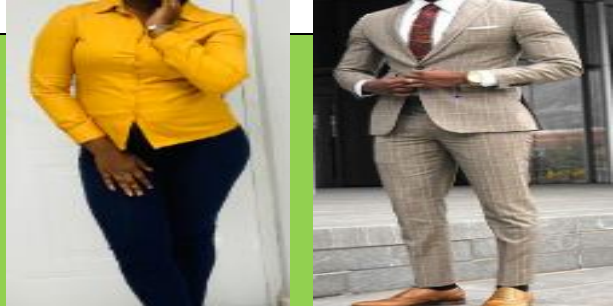
Do not do anything to frighten the people whose co-operation you are seeking. It is important not to wear clothes that resemble uniforms such as a policeman, a soldier, a scout, fire or prison officer, customs or immigration officer, or use paraphernalia of any political party. Put on simple but decent clothes, which will not **frighten, intimidate or offend any person and** that does not indecently expose parts of your body. The golden rule: dress to blend into the environment of the interview.

- Put on simple but decent clothes (neatly dressed, no fanciful clothes).
- avoid sweaty appearance and be free from body odour
- avoid shabby appearance
- Remember to wear your IBES Jacket and ID card at all times; and
- Wear your face mask where necessary during the exercise.

**Do NOT wear any attire to frighten, intimidate or offend the people whose co-operation you are seeking. Avoid:**

- Clothes worn by soldiers, police or prison officers or any of the security services
- Provocative/indecent dresses and hairstyles
- Large necklaces and long earrings
- Too much makeup
- Long fingernails or artificial nails.

Decent Clothes and protective footwear	Type of business
	<p>Appropriate for all types of business</p>
	<p>Appropriate for Open Space and Mobile Businesses</p>
	<ol style="list-style-type: none"> <li>1. Appropriate for all types of businesses in type 3 EAs.</li> <li>2. Also for bushy areas irrespective of type of business and EA type.</li> </ol>

Decent Clothes and protective footwear	Type of business
	<p>1. Appropriate for all types of businesses in types 1 and 3 EAs.</p> <p>2. Also for bushy areas irrespective of type of business and EA type.</p> <p>3. Appropriate for Open Space and Mobile Businesses</p>
	<p>Appropriate for establishments in cities and towns</p>

### Before the Interview

*Make sure you have the following items before an interview.*

1. Identity card
2. Introductory letter addressed to the business entity
3. Tablet/Questionnaire for the establishment (CAPI or PAPI)
4. Field Officer's manual
5. Pen
6. Notepad

### Interviewing Skills

Field Officers must utilize the following interviewing skills:

1. Establishing a good rapport with the respondent;
2. Being mindful of their sitting posture during interviews;
3. Obtaining respondents' consent before starting interview;
4. Maintaining neutrality throughout the interview period;
5. Refraining from suggesting answers to the respondents;
6. Asking the questions without changing the wording or sequence;
7. Handling difficult or reluctant respondents tactfully;
8. Recording information accurately;
9. Being patient to go through the interview with the respondent;
10. Being courteous, patient, and tactful;

11. Answering questions from the respondent frankly; and
12. Keeping to appointment times on the call-back card and never keep the respondents waiting

### **How to Approach Businesses**

Whenever you to enter premises (businesses) for an interview, remember that you are a stranger to the people and must, therefore, observe all the rules and customs governing visits to business premises:

1. Knock and ring bell and wait for response
2. Greet and exchange courtesies
3. Look cheerful
4. Ask for the owner of the business, the managing director or the person in charge of the business
5. Explain the purpose of your visit
6. Seek consent and proceed to administer the questionnaire

### **Example:**

“Good Morning Sir/Madam, My name is (ENUMERATOR’S NAME), (SHOW YOUR ID CARD). I am a Field Officer from the Ghana Statistical Service. I am assigned to work in this area to collect information on all businesses. *I hope you have already heard about the 2023 Ghana Integrated Business Establishment Survey (IBES) which is now taking place in all parts of the country.* The information you give me will be treated strictly confidential and will not be disclosed to anybody. This information is needed for planning purposes.”

Many of the businesses you will visit may already be aware of the nature of the work you are engaged in. If some of the businesses you visit do not appear to know anything about the IBES, you must proceed to explain briefly the nature of the exercise to them. You must emphasize that the operation will help in making realistic development plans such as addressing business death rate, provision of employment figures for all sectors which will be readily available for policy and help private businesses to identify possible new business locations based on other, similar businesses in an area.

However, you must desist from promising any developmental projects. You must also stress that the IBES has nothing to do with taxation and deportation of non-Ghanaian businessmen. Again, emphasize that the information provided is confidential because Statistical Service Act (2019) forbids the disclosure of any personal or individual information acquired under the act to any Ministry, Department, or other Government organization for taxation or deportation of non-Ghanaian businessmen.

Immediately after your brief explanation, you must proceed to obtain the information required. Do not waste time with any person or group of persons as this may delay your work within the enumeration period.

Do not act overly aggressive or too sociable. Maintain a pleasant and business-like composure.

When leaving the business premises, remember to thank the respondent and other members for their cooperation.

## **How to Deal with Difficult or Reluctant Respondents**

Occasionally, you may come across people who show a suspicious or uncooperative attitude. In such cases:

1. You must point out to the uncooperative person that all the information you are collecting is confidential and will not be disclosed to anyone.
2. You may obtain help from neighbouring businesses whom you have already enumerated. You should try to find another person known to the uncooperative respondents to help you in explaining the purpose of your visit. This may help you obtain a favourable response.
3. You may also obtain help from the local Chief or Headman or Assemblyman/woman or Unit Committee member. For this reason, it is always advisable to pay a courtesy call on the Chief or Headman or Assemblyman or woman of any town, village or hamlet you visit before you start your work. You must explain your mission to him or her and let him or her know the important part he or she can play to ensure that your mission is successfully carried out.
4. If he or she still refuses to co-operate, take note of it and report the matter to your Field Supervisor who will take it up with a higher authority.
5. If all these approaches fail, then as a last resort, tell him or her that the Statistical Service law requires him or her to give answers to your questions. Failure to oblige could lead to the committal of an offence which is liable on summary conviction to a fine or a term of imprisonment or both.

### **Things you must DO**

1. As far as possible, only adults must be interviewed;
2. Carry your Identity Card or introductory letter, tablet and your Field Officer's Manual with you at all times while working on the IBES;
3. Study your Manual thoroughly in order to do your work efficiently;
4. Discuss all your problems and uncertainties with your Field Supervisor;
5. Be patient, tolerant, and courteous at all times when dealing with respondents;
6. Visit again and again, businesses where enumeration has not been completed;
7. Always conduct the interview in such a way that the respondents are always assured of "confidentiality".

### **Things you must NOT DO**

1. Do not enter any fictitious information on your Tablet. You will be found out and be charged with fraud. In some cases, respondents themselves will tell you "to provide the answers for them". You should patiently explain to them that the IBES regulation does not allow you to provide information for respondents and that you would be charged with fraud if you did that.
2. Do not permit any unauthorized person to accompany you on your visits. If, in an exceptional case, you have to depend on a guide to locate a hamlet or house, do not allow him or her to interfere with the interview;
3. Never discuss issues relating to politics or religion, nor must you allow yourself to be involved in any controversial arguments while engaged in an enumeration;
4. Do not argue with your respondents;
5. Do not disclose to anyone, except to IBES Officials, any of the information you receive in the course of your duties as an Enumerator;

6. Do not permit any unauthorized person, not even a member of your family, to see the information entered on the tablet;
7. Do not delegate your work as an Enumerator to another person;
8. Do not combine IBES work with any canvassing for personal gain, your church, mosque, political party or any other organization.

### **Language for Interview**

You must as much as possible, conduct the interview in a language that is understood by the person who is answering the questions. Occasionally, you will come across individuals who do not understand any of the languages you speak. If a substantial proportion of persons in your EZ do not understand your language, you must, with the knowledge of your Field Supervisor, engage an interpreter.

### **Training**

All persons selected for the IBES field work must attend the enumerator's training course. Training comprises of both classroom work and mock interviews in both English and local languages.

### **Training programme**

On the first day of training you will be registered and given copies of the training programme, the Enumerator's manual, questionnaire and other relevant materials. You should study the training programme and take note of topics to be treated on each day. Before each training session, study the manual and write down any questions you may have. Ask the questions during the training sessions and ensure you obtain clarification during the training session.

### **High standards expected of you**

During enumeration you will be dealing with managers, accountants and other high profile officials. They will expect you to demonstrate high level of professionalism and knowledge of purpose of the IBES and the questionnaire. This manual and training course will adequately prepare you for the purpose. Therefore, you have to pay attention during the training and learn carefully the census concepts and procedures.

### **Demonstrations, practical work and tests**

The training will consist of observing demonstrations and being examined. You would need to pay particular attention to the demonstrations to prepare you for the test. You will be tested on your knowledge during training. Regard these tests as an opportunity to know your strengths and weaknesses, and to overcome the latter.

### **Training continues in the field**

Your training as an enumerator does not end when the formal training period is completed. It continues whenever you meet your supervisors to discuss your work in the field. Formal training provides you with basic knowledge and information regarding the IBES, the questionnaires and

procedures. Continued observation and supervision during the field work builds on this. As you encounter situations which were not covered during the training, discuss them with your supervisor. Your experience may alert the project secretariat to a new observation of the census and would assist them with interpretation of the data.



## CHAPTER THREE

### ENUMERATOR’S FIELD KIT

- 3.1** You will be supplied with materials listed in 4.4 These materials are properties of the state and you are accountable for them.
- 3.2** You are required to return to the census secretariat all materials marked with an asterisk (\*). Failure to do so may result in a deduction from your allowance, the value of the items not returned.
- 3.3** Failure to return all questionnaires will lead to disciplinary or legal proceedings being taken against you.

#### 3.4 List of Materials

Quantity	Description	Use
1	Bag	For keeping enumeration materials safe. This is to be returned to your supervisor after enumeration is completed
100	*Questionnaires	For collecting information from the establishment. Every copy is to be returned to your supervisor whether used or not.
2	Ball Pen	For use during the enumeration
1	Enumerator’s Manual	For training and reference in the field
1	*Field Note Pad	For keeping daily record on enumeration experience and problems.
1	Letter of Introduction	To introduce the enumerator and inform the respondent about the census
1	EZ Map	Enumeration Zone (EZ) would be use to identify the boundary of your enumeration in the IBES
1	*I. D. Card	For Identification

***NB:*** In case you are not issued some of these materials or you run short of some materials in the field report to your supervisor immediately

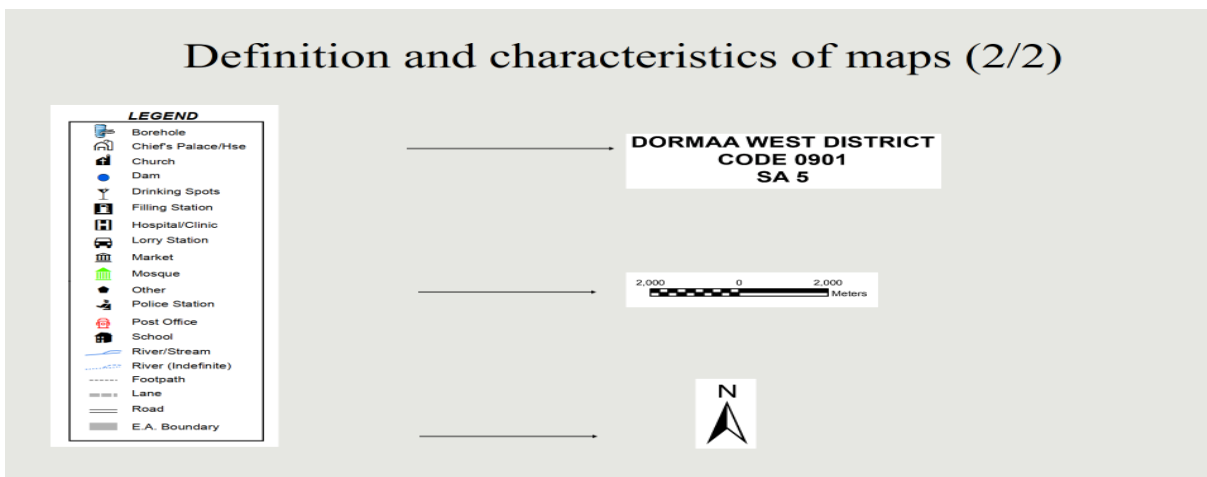
# CHAPTER FOUR

## USE OF MAPS IN THE CENSUS

### 4.1. Definition of maps

A map may be defined as the representation of the entire earth surface or a part of it on a piece of paper or other surface. It is a diagrammatic representation of an area of land or sea showing physical and man-made features including etc. A map generally has the following characteristics, Title, Legend, Scale, and North Arrow.

**Figure 4.1: Example of Map**



#### 4.1.1: Maps used for data collection

Different types of maps are used for purposes of field data collection, these include:

- I. EA Map (a locality, part of a locality or group of localities)
- II. SZ Map (group of EZ Maps)
- III. District Map (Unit of administration)

Maps are essential for achieving complete and accurate enumeration. It is important for field officers to be conversant with the procedures for using maps to accurately identify enumeration and supervision areas.

In the case of IBES, enumeration maps serve as the basis:

To plan an effective enumeration of the assigned zone;

For enumerators to locate the boundaries of their assigned zone;

To identify all localities, list and enumerate all businesses; and

For effective recruitment and distribution of logistics.

#### ***4.1.2: Enumeration Area (EA) map***

An Enumeration Area (EA) map is the map of the smallest geographical area with a well-defined boundary and features that is assigned to an enumerator which can easily be canvassed and enumerated during the data collection period. EAs are created prior to every population census, their created based on population and other ground features; population ranges from 500- (+-)750. Current EAs were created with estimated population in 2019 and other featurus including roads, rivers, streams, mountains etc. Each EA map has description form (PHC2) attached to a map which describes the boundaries of the EA and other relevant characteristics. The objective of the Listing can only be achieved if all structures are listed. The map will be your most important aid in achieving complete listing of your EA. It is very important that you know the area assigned to you in order to cover it systematically. Remember that the EA map is simply an image of land, water and other features that are unique to a particular part of the country.

The map shows the boundaries and names of all sides of the EA. It also shows localities, roads, streets, rivers, streams, railways, houses and other major features within the boundaries of the EA. An EA has an estimated average population of 750, even though it can be more or less. There are three (3) main types of Enumeration Area Map. These are Type 1, 2 and 3 EA maps. The following information are usually found on an EA map irrespective of type.

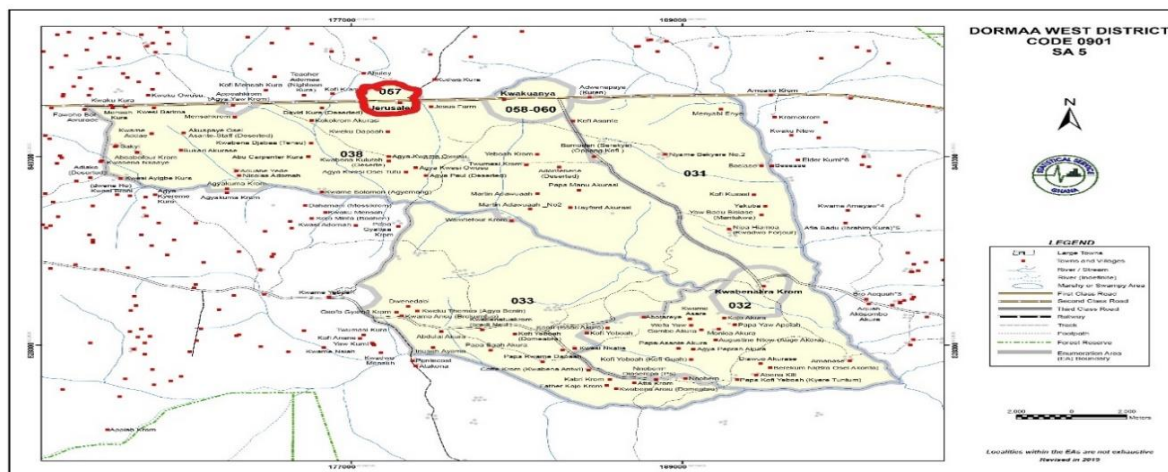
- a) Locality Name and Code
- b) Region and District name and their codes
- c) Name and number of Supervision Area (SA)
- d) Name/Base of Enumeration Area
- e) Enumeration Area Number

#### **There are three types of EA Maps**

#### ***4.1.3: Type 1 Enumeration Area (EA) Map***

The Type 1 EA map shows an enumeration area which is formed out of one locality (i.e., One Locality = One EA). This type of EA is normally referred to as an island and is found in a rural area (See Figure 5.2).


**Figure 4.2: Example of Type 1 EA (EA numbers 057)**



**Example of Type1 EA Description Form (PHC2)**

13-May-19

**GHANA STATISTICAL SERVICE**



**REPUBLIC OF GHANA**  
**PHC2**  
**2020 POPULATION AND HOUSING CENSUS**  
**GHANA AUTOMATED ENUMERATION AREA INFORMATION SYSTEM [GAEA-INFO]**

GPS: 0.0  
0.0

1a. Region	Brong Ahafo Region	1b. Region No.	09
2a. District	DORMAA WEST	2b. District No.	0901
3b. District Type	District	3b. District Type No.	1
4a. Sub District	DORMAA WEST	4b. Sub District No.	00
5a. Base Locality Name	JERUSALEM	5b. Base Locality No.	01
6a. Locality Type	RURAL	6b. Locality No.	2
7a. 2010 EA Code	0704200028	EA Number	057
GhanaPostGPS	-	EA Base	JERUSALEM
EA Type	1		

**2020 EA Code (Prov.).....: 0901100057**

No. Localities	2010 PHC		2018 GCA		2020 Estimated.		2020 Enumerated	
	Enum.Pop	Enum.HseHd	Enum.Pop	Enum.HseHd	Est.Pop	Est.HseHd	Enum.Pop	Enum.HseHd
01 JERUSALEM	0	0	0	0	591	0	0	0

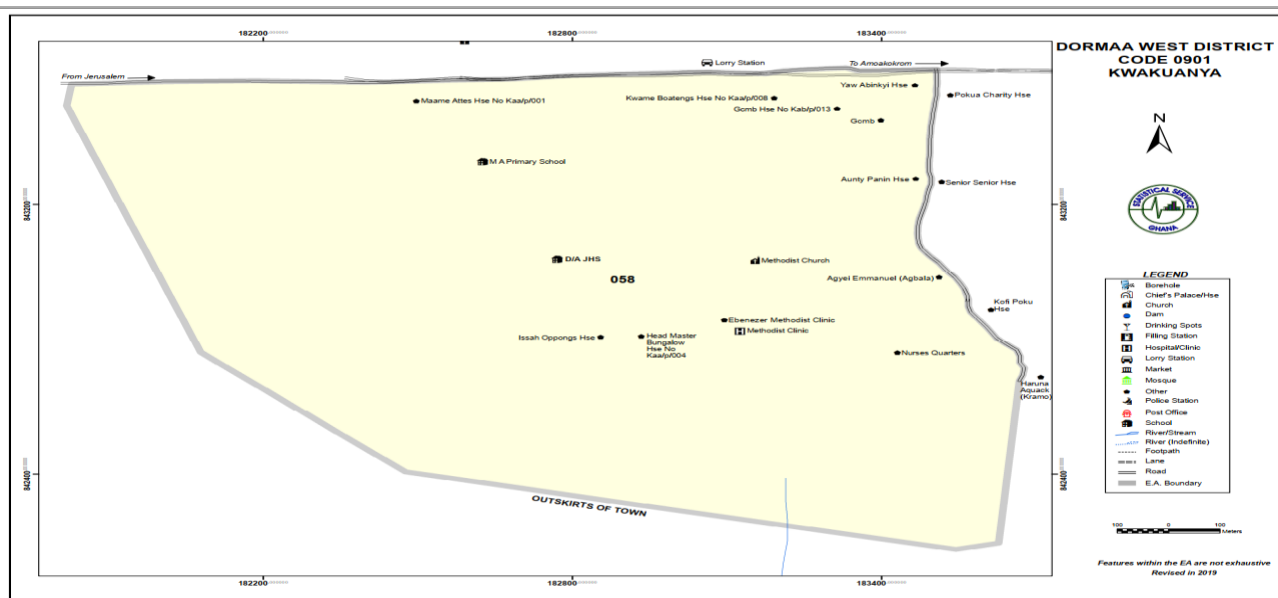
**Boundary Description**

THE ENTIRE LOCALITY OF JERUSALEM CONSTITUTES THE ENUMERATION AREA .

**4.1.4: Type 2 Enumeration Area (EA) Map**

The Type 2 EA map shows two or more EAs in one locality (i.e. One Locality = Many EAs). The Type 2 map below (Figure 5.3) shows names of points of interest including Pentecost Church, Presby Church, Lorry Station, etc. In Type 2 EAs, boundaries are mostly formed by features like streets, buildings, lanes, drains, railway lines, etc.


Figure 4.3: Example of Type 2 EA (EA numbers 058,)



Example of Type 2 EA Description Form (PHC2)

18-Oct-19

**GHANA STATISTICAL SERVICE**



GPS: 0.0  
0.0

**REPUBLIC OF GHANA**  
**PHC2**  
**2020 POPULATION AND HOUSING CENSUS**  
**GHANA AUTOMATED ENUMERATION AREA INFORMATION SYSTEM [GAEA-INFO]**

1a. Region	BONO	1b. Region No.	09
2a. District	DORMAA WEST	2b. District No.	0901
3b. District Type	DORMAA	3b. District Type No.	1
4a. Sub District	DORMAA WEST	4b. Sub District No.	00
5a. Base Locality Name	KWAKUANYA	5b. Base Locality No.	04
6a. Locality Type	RURAL	6b. Locality No	2
7a. 2010 EA Code	0724100030	EA Number	059
GhanaPostGPS	.	EA Base	CONFIDENCE ACADEMY SCHOOL
EA Type	2		

**2020 EA Code (Prov.).....: 0901100059**

No. Localities	2010 PHC		2018 GCA		2020 Estimated.		2020 Enumerated	
	Enum.Pop	Enum.HseHd	Enum.Pop	Enum.HseHd	Est.Pop	Est.HseHd	Enum.Pop	Enum.HseHd
04 KWAKUANYA								

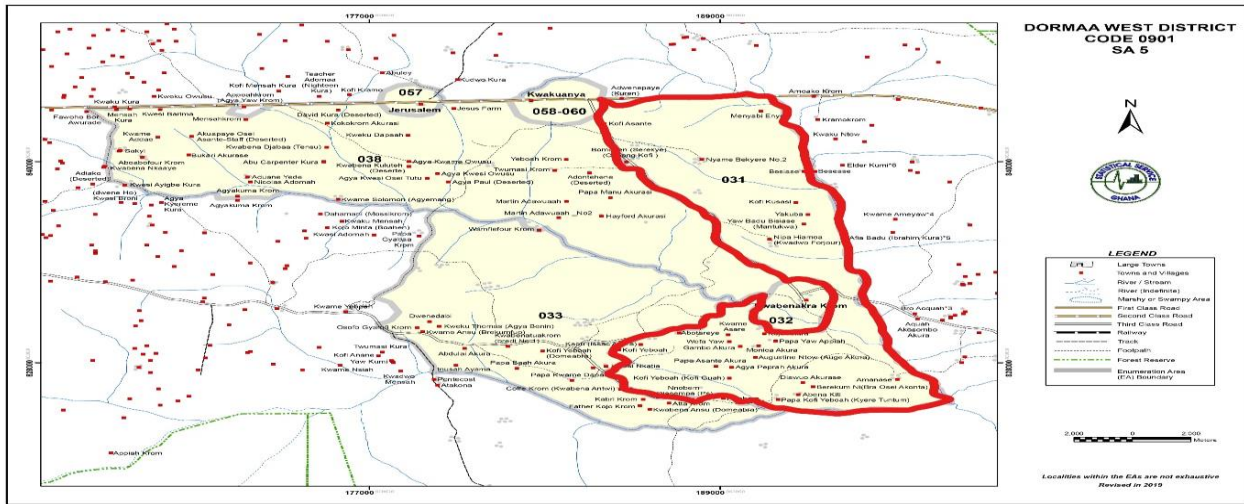
**Boundary Description**

Start from Yaw Abinkyi and Gomb (Both excl), Pokua Charity (Incl). Move along the lane by-passing Aunty Panin (Excl) and Senior-Senior (Incl). Proceed further to by-past Agyei Emmanuel (Agbala) (Excl), Kofi Poku and Haruna Aquack Kramo (Both incl). Turn left and follow the outskirt by-passing Agya Amoabeng, Teachers Quarters and Confidence Academy (All incl) to meet the Amoakokrom road. Turn left and move along the road by-passing Dwankobe church (Incl), Elder Ayamba cornmill (Excl) to meet Yaw Abinkyi and Gomb (Both excl), Pokua Charity (Incl), your starting point.

4.1.5: Type 3 Enumeration Area (EA) Map

The Type 3 EA map shows several localities coming together to form one EA (i.e., Many Localities = One EA). These EAs are the rural type. A Type 3 EA is usually made up of two or more localities and its boundaries are marked mostly by natural and artificial features such as streams, rivers, mountains, roads, and footpaths (See Figure 5.4).

**Figure 4.4: Example of Type 3 EA (EA numbers 031)**



## Example of Type 3 EA Description Form





**REPUBLIC OF GHANA**  
**PHC2**  
**2020 POPULATION AND HOUSING CENSUS**  
**GHANA AUTOMATED ENUMERATION AREA INFORMATION SYSTEM [GAEA-INFO]**

1a. Region	Greater Accra Region	1b. Region No.	03
2a. District	GA SOUTH	2b. District No.	0301
3b. District Type	MUNICIPAL	3b. District Type No.	2
4a. Sub District	GA SOUTH	4b. Sub District No.	00
5a. Base Locality Name	OCLOOKOPE	5b. Base Locality No.	01
6a. Locality Type	RURAL	6b. Locality No.	2
7a. 2010 EA Code	03012006311	EA Number	330
GhanaPostGPS	.	EA Base	OCLOOKOPE
EA Type	3		

**2020 EA Code (Prov.).....: 0301200330**

No. Localities	2010 PHC		2018 GCA		2020 Estimated.		2020 Enumerated	
	Enum.Pop	Enum.HseHd	Enum.Pop	Enum.HseHd	Est.Pop	Est.HseHd	Enum.Pop	Enum.HseHd
01 OCKOOKOPE					46			
02 TOGBE OCLOO					10			
03 THOMAS OCLOO					5			
04 GABESHIEKOPE					8			
05 OBED ASAMOAH FARMS					12			
06 GANNAT FARMS					12			
07 KUMA APALOOKOPE					12			
08 APALOO KWESIKOPE					20			
09 APALOO STEPHENKOPE					13			
10 KEY FARMS					12			
11 PEPPERKOPE					15			
12 KABU					10			
13 OKYEAME AKROWA					12			
14 KWAMI DZOLO (ZORO)					18			
15 AYIGBE KOFIKOPE					46			

17 GAPEKOPE (TAATA PAPA)					20			
18 GADRI AKWAKU					15			

**Boundary Description**

START FROM THE OUTSKIRTS OF DOMIABRA AND FOLLOW THE DOMIABRA - DANCHIRA ROAD ROAD PAST OCLOOKOPE (INCL) TO MEET RIVER LARANU. TURN RIGHT AND FOLLOW THE RIVER TO MEET THE DENSU RIVER. TURN RIGHT AND MOVE ALONG THE DENSU TO MEET A STREAM. TURN RIGHT AND FOLLOW THE STREAM TO MEET TOGAHKOPE (EXCL). FROM TOGAHKOPE MOVE ALONG THE TOGAHKOPE - DOMIABRA ROAD TO MEET THE OUTSKIRTS OF DOMIABRA, THE STARTING POINT.

**Enumeration Zone**

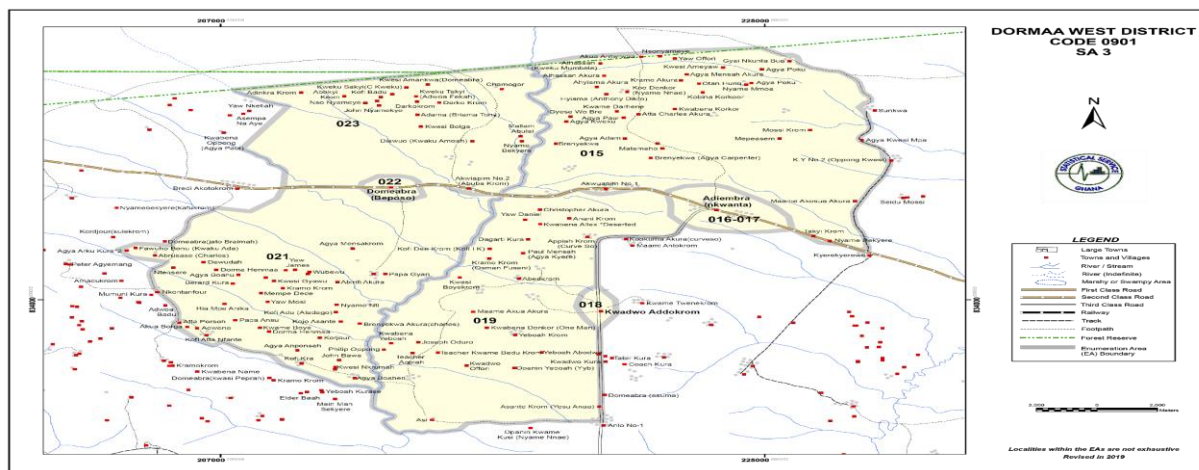
For IBES an enumeration zone (EZ) has been created. EZs are made up of one or more enumeration areas (EAs). The number of non-residential structures from the 2021 PHC guided the allocation of EAs per EZs. A number of EZs have been put together for supervisors called supervisory zones (SZs). A EZ will be assigned to an enumerator.

EZs created to have well defined boundaries that confines the enumerator to an assigned area. Prevent enumerator from leaving out any portion of the area assigned or stray into another zone.

#### 4.1.6: Supervision Area (SA) Map

The Supervision Area (SA) is the area for which a census enumeration supervisor is responsible. It is made up of an average of eight (8) Enumeration Areas. The variation depends on the population sizes, the topography and difficulty of enumerating the area. The SA map is contiguous and assigned to a supervisor during the census enumeration. See Figure 5.7.

**Figure 4.5: Example of SA Map**



#### 4.1.7: New localities in EA

Do not assume that the list of localities on the PHC 2 Form is complete because there may be other localities which do not appear on the list or the map. Though the EA Map and PHC 2 Form must indicate all localities in the EA, it is possible that some of these may not have been captured during the demarcation exercise or may no longer be in existence or new ones may have been established since the completion of the demarcation exercise. List such localities and notify your supervisor of any changes.

#### 4.1.8: Geographic Identification Codes (Geo-Codes)

Geographical Code [Geocode]: This is a unique numeric identifier that is assigned to each EA. For the purpose of the IBES, all maps have geographical identification codes(geocodes).

All EA maps have been assigned consecutive numbers within the administrative district of the country.

EA Maps are assigned 10 digit geocodes.

Enumeration Areas (EAs) have been assigned consecutive numbers within the administrative division and in conformity with the geographic coding of the country that uniquely identifies each EA. It is a ten



(10) digit code system which contains geographic identification codes of each administrative area and EA n

**Table 4:1: Geographic codes**

Geographical Area	Digit Location	Code	Range	Remarks
Region	First Two	2-Digits	01-16	From Western = 01 to Upper West =16
District	3 <sup>rd</sup> and 4 <sup>th</sup>	2-Digits	01- 47	Ashanti has the Highest = 47
District Type	5 <sup>th</sup>	1-Digit	1- 3	District=1, Municipal = 2, Metropolitan = 3
Sub-Metro	6 <sup>th</sup> and 7 <sup>th</sup>	2-Digits	01- 05	KMA has the highest = 5
EA Number	8 <sup>th</sup> , 9 <sup>th</sup> & 10 <sup>th</sup>	3-Digits	001-999	To be numbered sequentially within district/municipal/sub-metro

- a) **Region name:** There are 16 regions in Ghana. Each region has its own code, based on the serpentine ordering recommended by the United Nations for Listing.
- b) **District:** Within these Administrative Regions are districts (MMDAs) and there 260 Administrative districts in Ghana.
- c) **Statistical District:** There are 271 Statistical Districts have been created, including all the existing Metropolitan, Municipal and District Assemblies in Ghana.
- d) **District Type:** District type refers to the existing administrative District or Municipal or Metropolitan Area.
- e) **Sub-Metro:** Is a geographically defined urban jurisdiction or centre performing governance and administrative functions at the sub-metropolitan level. It is represented in the Geo-Code by a 2-digit code. Greater Accra has two Metropolitan Assemblies namely: Accra Metropolitan Assembly (AMA) and Tema Metropolitan Assembly (TMA). The district in Greater Accra region and their codes are presented in Appendix 1 of this manual.

**Table 4:2: List of Sub metros within the Metropolitan Assemblies**

Name of Metropolitan Assembly	Name of Sub Metros	Number of Sub Metros
STMA	Takoradi, Sekondi and Esikado-Ketan	3
Cape Coast	Cape Coast North and Cape Coast South	2
AMA	Ablekuma South, Ashiedu Keteke and Okaikoi South	3
TMA	Time Central and Tema East	2
KMA	Nhyiaeso, Subin, Manhyia South, Manhyia North and Bantama	5
Tamale	Tamale South and Tamale Central	2
Total		17

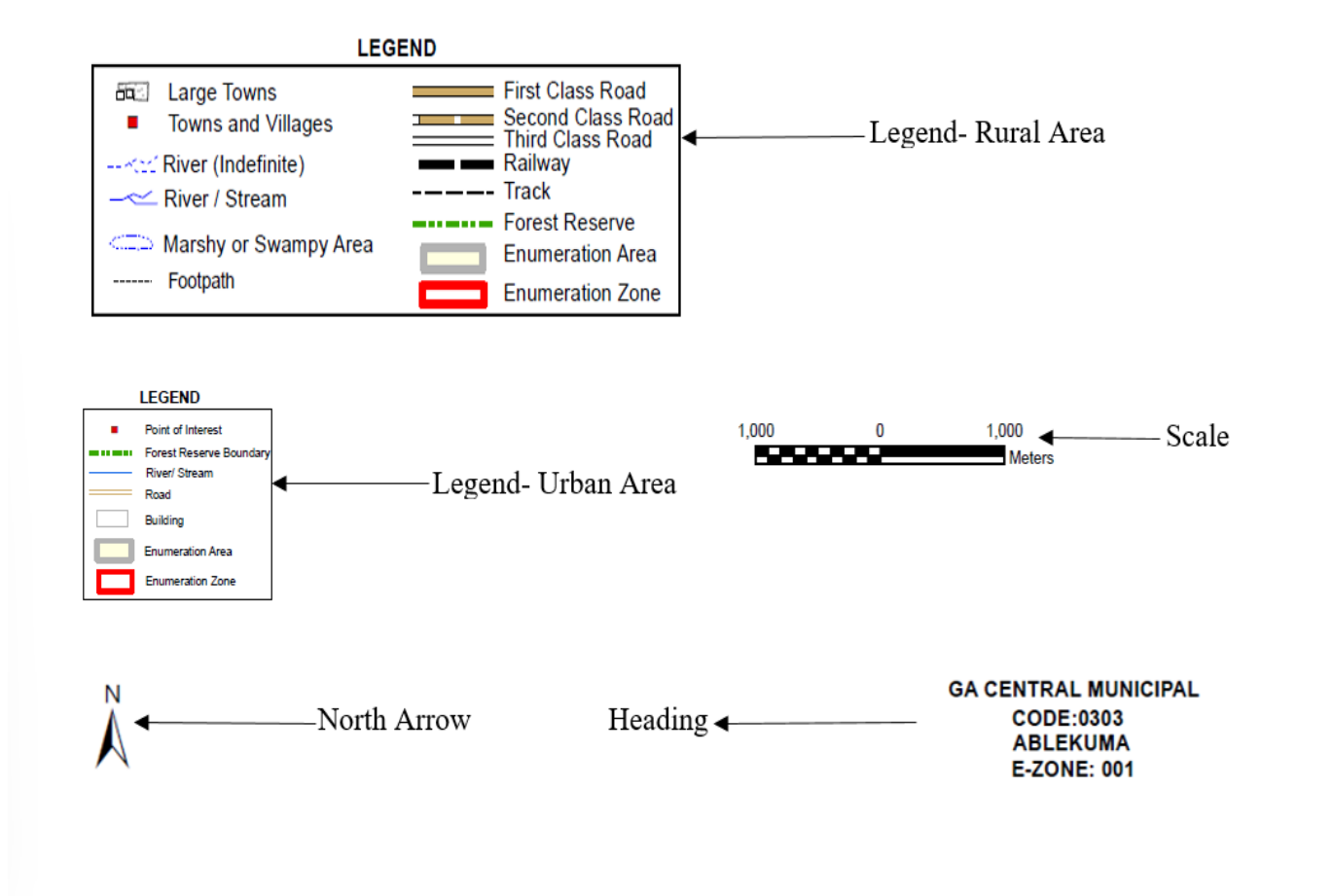
- f) **EA Number:** EA number is a 3-digit number assigned to each Enumeration Area in the district.
- g) **Locality Code:** This is three-digit code for localities listed on PHC 2
- h) **Point of Interest (POI)** It is a specific point location that someone may find useful or interesting. It is a feature on a map (or in a geo dataset) that occupies a particular point. An example is a point on the map used to represent a school or a church, etc.
- i) **Map Orientation:** For using any map, it is important to know how to align it on the ground correctly so as to be able to identify and locate certain features on the ground that are shown on the map in relation to ground features. The process of aligning a map with ground features is known as “map orientation”
- j) **Legend** - In cartography, the information on a map that explains which symbols are used for the features and variables that are represented on the map. This includes the symbol key required to interpret the map, for example, the shade colours and corresponding value ranges of a population density map.
- k) **Administrative unit** – It is a geographic area that serves administrative and governmental functions. They are usually defined and established by legal action.
- l) **Boundary** - a line that defines the extent of an area unit or the location where two areas meet. A boundary is represented in a GIS as a line feature, which may define a side of a polygon. The boundary may or may not be visible on the ground; i.e., it can follow real-world features such as roads and rivers, or it can be defined solely by geographic coordinates.
- m) **Contiguity** - if two or more geographical features are neighbours or adjacent.
- n) **Geographic code** - unique alphanumeric identifier that is assigned to a legal, administrative, statistical reporting unit. This is a unique numeric identifier that is assigned to a legal administrative, statistical reporting unit.
- o) **Outskirts** - It is the outer part of a locality. The concept of outskirts must be clearly understood by all users of EA maps. In most cases outskirts apply to type 1 and type 2 EAs. It is usually the uninhabited area of the locality after the last structure/dwelling. It should be noted that when 2 or more localities are contiguous and are almost joined together, this concept of outskirts no more holds.
- p) **Supervisory Zone-** This is a group of adjoining EZ map assigned to a supervisor during the IBES period.
- q) **District Map-** A District Map is a group of Supervisory Zones maps representing several Enumerator Zones. District Map covers an entire district as an administrative unit.
- r) **Supervisory Map:** This is a group of adjoining EZ Maps assigned to a supervisor during the INES period.
- s) **Locality:** This refers to an inhabited geographical area with a distinct name and well-defined boundaries.
- It could be a hamlet mining camp, ranch, farm, village, town, city or part of a town or city.
  - A locality may contain one or multiple EAs.

## 2023 IBES ENUMERATION ZONES (EZ)

### 4.1.9: Definition of Enumeration Zone

An IBES Enumeration Zone (EZ) is the smallest spatial area to be completed by an enumerator during the IBES enumeration period. They are specially delineated geographical areas that encompass a number of businesses and establishments to be enumerated. EZs contain Enumeration Areas (EAs) which vary in size, ranging from one (1) Enumeration Area (EA) to an aggregation of EAs called Supervisory Areas (SA) per zone.

**Figure 4.6: Characteristics of e-zone maps**



### 4.1.10: Purpose of EZs

To group business establishments producing goods and services into spatial units just big enough for one enumerator to complete enumeration within the IBES enumeration period. The zones have well defined boundaries that confines the enumerator to an assigned area. This way, the enumerator is not likely to leave out any portion of area assigned nor stray into another zone.

#### **4.1.11: Basis for EZ creation**

For the purpose of this project, EZs were created based on estimated number of use of structures from the 2021 PHC. The EZs were created with an aggregating EAs.

#### **4.1.12: Core dataset used for the creation of EZs.**

For the purpose of the IBES project, EZs were created based on number of non-residential structures in each EA. This was done by extracting all 99 non-residential facilities from the listing data obtained during the 2021 Population and Housing Census. Because the focus of the project is on facilities that produce goods and services (business establishments), 72 out of the 99 non-residential structures which were identified as business establishments were extracted to create EZs for the IBES Project. The list of business establishments used for the delineation of EZs is listed below.

#### **EZ composition**

- i. Estimated number of business establishments forming a EZ in metropolitan and regional capital is between 200-299
- ii. Estimated number of business establishments for other EZ is between 300-399

#### **EZ Geocodes**

1. The EZ Geographical Code [Geocode]: is a unique numeric identifier that is assigned to each EZ.
2. An EZ code consists of a 10-digit EA code plus a 3-digit EZ number
3. The EZ code is a 13-digit geocode.

**Table 4.3: Illustration of Components of EZ code**

<b>GEO AREA</b>	<b>CODES</b>	<b>RANGE</b>	
Region	2-digits	01 - 16	This uniquely identifies each of the 16 regions
District	2-digits	01 – 43	This uniquely identifies each of the districts
District Type	1-digit	1 - 3	1 = District 2 = Municipal 3 = Metropolitan
Sub-Metro	2-digits	00 - 05	
EA Number	3-digits	001 - 999	This uniquely identifies an EA in a district
EZ Number	3-digits	001-999	This uniquely identifies an EZ in a district

Figure 4.7: Sample urban EZ map

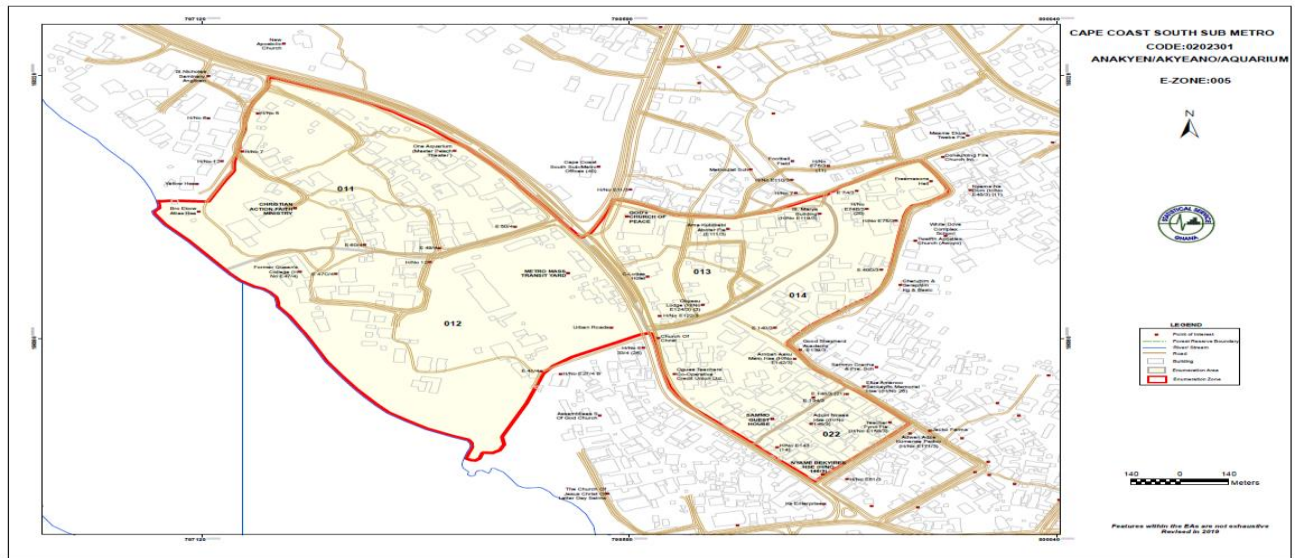
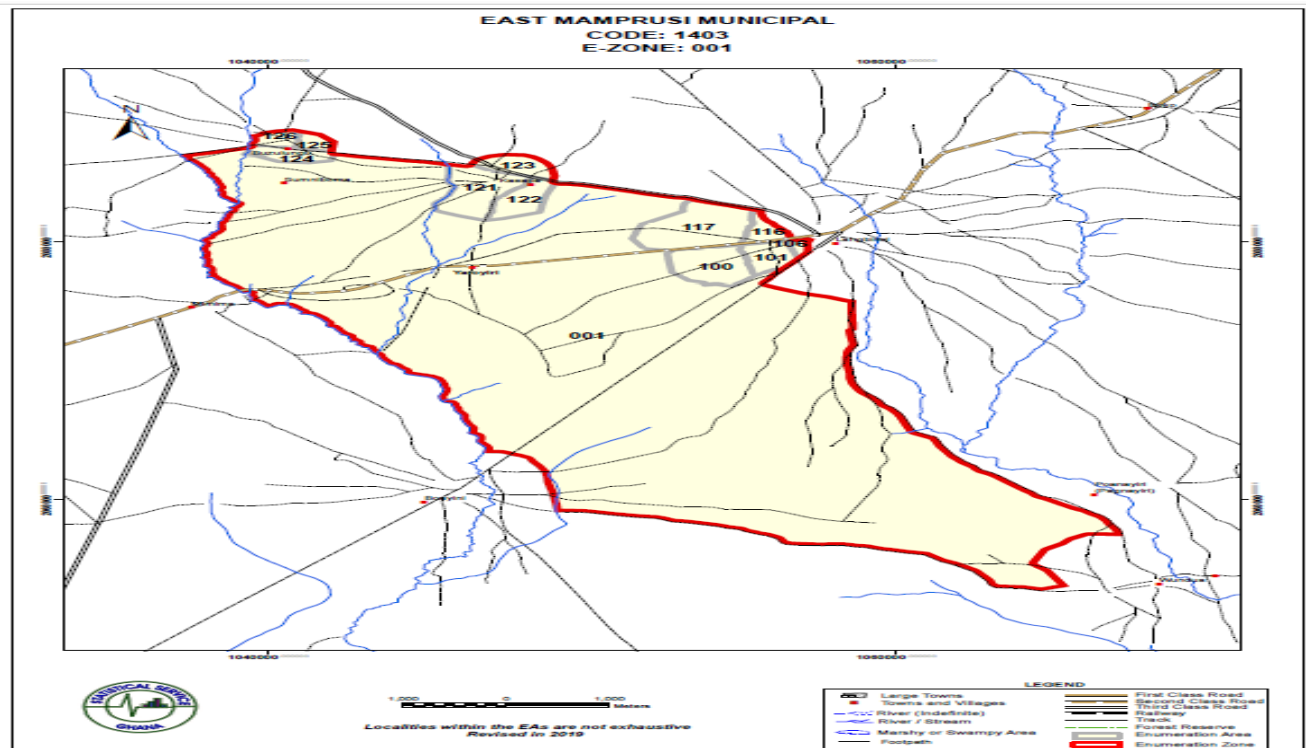


Figure 4.8: Sample rural EZ map



#### **4.1.13: Steps to locating your EZ/Reading map/map orientation**

1. Locate your EZ using the specific EAs as a guide
2. Select an EA
  1. Understand and acquaint yourself with the map symbols and directions.
  2. Orient your map correctly with the help of the north arrow symbol on the map.
  3. Canvass or trace boundary of EA systematically search for the entire EA segment by segment at a time with the aid with the PHC2
  4. Canvassing will allow enumerator to familiarise him/herself with the EA and get to identify key features that will facilitate the process of enumeration.
  5. It during canvassing that businesses such as those in open space but are in fixed locations can be identified.
  6. Use the EA description (PHC2) alongside the landmarks/ localities on the map as a guide to locate or canvass the assigned EAs.
  7. Identify EA using EA name (base) for Type 2 EA and for Type 3 EA, look for the base locality.
  8. Identify the starting point of the EA as indicated on the PHC 2.
  9. Orient your map correctly with the help of the north arrow symbol on the map. The symbols will help you recognize the geographical features shown on the map while the “North” direction will enable you know your bearings.
10. Trace the EA boundary with the aid of the PHC 2
11. Canvass the EA for Types 1 & 2 by systematically moving within and around the entire EA, segment by segment. Familiarize yourself with the EA and identify key features that will help facilitate the process of listing and enumeration.
12. For Type 3 EAs, canvass the localities by systematically moving from one locality to the other, and moving around each locality.
13. The individual EA Maps, EZ Maps, District Maps and the Descriptions (PHC 2) complement one another; hence Supervisors/Enumerators should use them together.
14. Upon arrival on the field or locating the EA, orient the map by aligning the points of interest on the map to match features on the ground.
15. Be conversant with conventional signs (legend) on the map as well as the “North” direction.
16. The symbols will help you recognise the geographical features shown on the map while the “North” direction will enable you know your bearing.

#### **Steps to locating EZ**

Canvass the EA for Types 1 & 2 by systematically moving within and around the entire EA, segment by segment.

- For EZ with type 1 EAs, with the entire locality as an EA,
  - pick a strategic point on the boundary of the locality or settlement
  - move along boundaries, lanes, paths, streets, and roads until all the businesses in residential and non-residential structures are enumerated in the locality or settlement.
- For an EZ with type 2 EAs, the locality has more than one EA,
  - pick a strategic point on the boundary of one EA,

- move along the boundary, lanes, paths, streets, and roads until all businesses in residential and non-residential structures are enumerated.

For Type 3 EAs, canvass the localities by systematically moving from one locality to the other, and moving around each locality.

•For an EZ with type 3 EAs, where several localities constitute an EA,

- start with the largest/most populace locality or the EA base,
- pick a strategic point on the boundary of the locality or settlement
- move along the boundaries, lanes, paths, streets, and roads until all businesses in the residential and non-residential structures in the locality are enumerated.
- Repeat same process for subsequent localities or settlements and in the EA until all localities are completely enumerated.

The individual EA Maps, EZ Maps, District Maps and the Descriptions (PHC2) complement one another; hence Supervisors/Enumerators should use them together.

#### **4.1.15: Difficult EZs**

1. Difficult EZs include those in which business establishments are relatively farther apart and enumerators are required to cover long distances between one establishment and another
2. Areas where the nature of the land makes movement difficult –Areas having mountains, hills, valleys, steep slopes etc
3. Rivers, streams, lakes, dams, marshy areas etc
4. Thick vegetation cover with limited access routes/roads.

#### **How to access difficult EZs**

- i. Familiarise yourself with your map features to identify and avoid routes on harsh terrain
- ii. Do not attempt to canvass EZs composed of type 3 EAs as that can be very challenging
- iii. Plan your itinerary effectively and make adequate time for movement to and within EAs in the zone
- iv. Contact the people/opinion leaders in your zone ahead of your trip to guide you on the most convenient routes to use
- v. Inform and seek additional support from the project secretariat to facilitate your movement when you find that necessary. For example, arrangement for a boat to cross the Volta Lake or other water bodies, supply of lifejackets etc.

#### **Interactive maps**

Interactive maps are dynamic maps that allow for some level of interaction between the map user and the map. This mapping technique involves the use of Geographic Information System (GIS) to show or pinpoint data on a map. The map works in a system of layers with the different levels of geographic information placed on top of each other.

Unlike static maps, interactive maps have advantages or features designed to improve the display of a large amounts of complex data. An example of such advantage is the zoom capability which allows users to focus on either the details of a particular region or to gain a quick overview of a wider area.

### **Complementing static maps with interactive maps**

Backdrop images of interactive maps with relevant map features and Points of Interest (POIs), running on top of static EA maps would facilitate the location of EA boundaries as well as business establishments in the zones.

### **Important guides**

1. Be sure you do not leave out any establishment **included** in your zone (Gap situation)
2. Do not stray beyond the boundaries of your EZ into other EZs (overlapping situations)
3. Enumerators must ensure that all establishments that fall within their zones are captured (complete coverage)



## **CHAPTER FIVE**

### **FIELD PROCEDURES**

The success of the IBES depends on how well the fieldwork is conducted. For effective fieldwork, field procedures and planning of field work, location of establishment and meeting with supervisors must be strictly followed. It is also important that enumerators uphold confidentiality during the exercise.

#### **5.1 Confidentiality**

The Statistical Service Act 2019(Act 1003) which empowers the Ghana Statistical Service (GSS) to conduct this census also forbids the institution or its representative from disclosing information on any particular establishment to outsiders.

As an enumerator, you are the Government Statistician's representative in the field. You are required to handle all documents carefully and conduct your work in a manner that will ensure confidentiality. Remember that you have taken an oath of secrecy. Legal action will be taken against you if you release or disclose any part of information on the census to unauthorized persons or institutions.

##### **a: Handling of documents during interview:**

During interview, make sure the tablet is in the case and administer the questionnaire.

##### **b: Reference to Other Respondents**

Do not refer to names and answers obtained from respondents while interviewing another respondent. Do not let a respondent see a completed questionnaire of another respondent.

##### **c: Keeping of IBES materials at home:**

Keep all IBES materials, especially documents, in safe and secured places. Preferably, keep them in boxes or cup-boards with locks.

##### **d: Keeping IBES Data from Members of Family and Friends**

Do not discuss IBES data with members of your family or friends. You must not permit any unauthorized person, even a member of your family, to see a completed questionnaire. You must not solicit or accept assistance from non-census personnel in your enumeration duties.

#### **5.2 Planning Your Field Work**

After your training, you will be given your materials, as listed in chapter four. You should aim to finish your work by the end of the assigned period. In an EZ, identify your boundary, pick a strategic point on the boundary, and move along boundaries, lanes, paths, streets, and roads until you exhaust the EZ to ensure that all businesses in the EZ are covered. In an EZ made up of several localities, you should ensure that all localities within the EZ are covered.

## **5.3 Identification of Establishment**

### **5.3.1 Enumerating Physical Businesses**

#### **5.3.1.1 Establishments in structures/temporal fixed locations but in structures**

- i. All four approaches for data collection would be deployed.
- ii. After locating their EZs, enumerators should inform opinion leaders about the Census and introduce the purpose and objective of their visit.
- iii. Present the introductory letter.
- iv. Locate the establishment.
- v. Introduce yourself, locate a respondent, and administer the questionnaire.
- vi. Start questionnaire administration with CAPI using an appropriate questionnaire.
- vii. Provide paper questionnaires or online links on demand.
- viii. If a respondent wants to complete the questionnaire himself/herself, leave the questionnaire behind and make an appointment with him/her when you return to collect it.
- ix. If a respondent needs assistance with completing the questionnaire, assist immediately or book an appointment with him/her as to when to go back for the interview.
- x. If the respondent does not ask for the questionnaire, you should not leave it behind.
- xi. If he/she asks to study it, wait for him/her to do so
- xii. If he/she insists on keeping it, give out one copy only.
- xiii. Enumerators should book appointments where necessary by politely impressing on respondents the need to complete fieldwork before the end of the period.

Generally, the following should be observed during the enumeration.

- In an EZ with type 1 EAs, where the whole locality is an EA, the Enumerator should exhaust all businesses operating in residential and non-residential structures and open spaces but fixed locations and mobile businesses.
- In an EZ with type 2 EAs, where the locality is made up of more than one EA, enumerators should exhaust all businesses in residential and non-residential structures and open spaces but fixed locations and mobile businesses in the EA before moving to the next EA.
- In an EZ with type 3 EAs, where several localities constitute an EA, the Enumerator should exhaust all businesses in residential and non-residential structures and open spaces but fixed locations and mobile businesses in the locality. After that, he/she should go to the other localities or settlements and repeat the process for subsequent localities in the EA until all localities are covered.

#### **5.3.1.2 Enumerating businesses operating from an open space but with fixed location**

- i. Direct interviews using CAPI would be used for data collection.
- ii. Highly densely populated business areas will be assigned an additional enumerator in that EZ.

- iii. Less densely populated areas, such as those in neighborhoods, will be enumerated by the primary Enumerator for that EZ.
- iv. After locating their EZs, enumerators should inform opinion leaders about the Census and introduce the purpose and objective of their visit.
- v. Locate the areas identified by the district statistician for such activities.
- vi. Introduce yourself, locate a respondent, and administer the questionnaire.
- vii. Start questionnaire administration with CAPI using the appropriate questionnaire.
- viii. If the respondent does not ask for the questionnaire, you should not leave it behind.
- ix. Enumerators should book appointments where necessary by politely impressing on respondents the need to complete fieldwork before the end of the period.

Generally, the following should be observed during the enumeration.

- In an EZ with type 1 EAs, where the whole locality is an EA, the Enumerator should exhaust all businesses operating in open spaces but with fixed locations in the locality.
- In an EZ with type 2 EAs, where the locality is made up of more than one EA, enumerators should exhaust all businesses in an EA before moving to the next EA.
- In an EZ with type 3 EAs, where several localities constitute an EA, the Enumerator should exhaust all businesses in open spaces but fixed locations in the locality. After that, he/she should go to the other localities or settlements and repeat the process for subsequent localities in the EA until all localities are covered.

#### ***5.3.1.3 Enumerating mobile businesses.***

- i. Direct interviews using CAPI would be used for data collection.
- ii. Locate the areas identified by the district statistician for such activities.
- iii. After locating the hotspots for mobile businesses, enumerators should inform the leaders about the IBES Census and introduce the purpose and objective of their visit.
- iv. All enumerators in a district will be deployed to hotspots for mobile businesses on the first day of data collection to collect data on them.
- v. Enumerators will be deployed in batches for each location. However, the number for each batch will depend on the density of these activities.
- vi. Each business activity in this category will be interviewed and given an identification tag.
- vii. Introduce yourself, locate a respondent, and administer the questionnaire.
- viii. Start questionnaire administration with CAPI using the appropriate questionnaire.

#### ***5.3.1.4 Enumerating virtual businesses***

- i. The list of virtual businesses obtained from the Ghana Revenue Authority (GRA) would be compared to that of the final businesses enumerated to check for businesses already enumerated and appear in the virtual business list. These duplicate businesses would be deleted to prevent double counting, and the final list would be enumerated.
- ii. An establishment questionnaire will be used to capture virtual businesses.
- iii. Telephone interviews would be the dominant approach. However, the appropriate

approach would be deployed where the respondents decide otherwise. Provide paper questionnaires or online links on demand.

- iv. For TAPI, CAPI, and PAPI, introduce yourself and administer the questionnaire.
- v. Start questionnaire administration with CAPI using the appropriate questionnaire.
- vi. If a respondent wants to complete the questionnaire himself/herself, leave a PAPI questionnaire behind and make an appointment with him/her when you are to return to collect it.
- vii. If a respondent needs assistance completing the questionnaire, assist immediately or book an appointment with him/her as to when to go or call back for the interview.
- viii. If the respondent does not ask for the questionnaire, you should not leave it behind.
- ix. If he/she asks to study it, wait for him/her to do so.
- x. If he/she insists on keeping it, give out one copy only.

Enumerators should book appointments where necessary by politely impressing on respondents the need to complete fieldwork before the end of the period.

## **5.4 First Visit to the EZ**

### **5.4.1 What to do during the first visit**

The purpose of this visit is to inform opinion leaders of the IBES and introduce the purpose and objective of your visit. You will be given a letter of introduction for this purpose. The first visit is essential. You should make a good impression on this visit. You are to find out from the respondent whether

- i. He/she wants to complete the Questionnaire himself/herself or
- ii. Needs an online questionnaire application to fill or
- iii. Furthermore, ask if He/she will need some help.

What to do during the first visit

- The first day is to plan your work
- Locate the assigned EZ and visit the EA(s) in it
- Inform opinion leaders about the IBES and introduce the purpose and objective of your visit
- Present your introductory letter and show your field identification card.
- Locate the EA base and identify a business
- Introduce yourself, identify the appropriate respondent(s) to administer the questionnaire
- Provide paper questionnaire or online link only on demand

#### **a. Respondent completing the questionnaire**

If a respondent wants to complete the questionnaire himself/herself, leave the questionnaire behind and make an appointment with him/her on when you are to return to collect it. Also let the respondent know of an online questionnaire.

#### **b. Respondent needs assistance to complete the questionnaire**

If a respondent needs assistance completing the Questionnaire, assist immediately or book an

appointment with him/her as to when to go back for the interview. If the respondent does not ask for the Questionnaire, you should not leave it behind. If he/she asks to study it, wait for him/her to do so and take it back. If he/she insists on keeping it, give out one copy only.

### **c. Appointments**

In making appointments politely impress on respondents the need to complete field work before the end of the period. Be careful so that one appointment does not coincide with another in planning your work. For example, do not make two appointments for the same day within a short time interval. Consider the time it will take to move from one appointment to another and also the distance between the two establishments. Record all appointments you make with respondents in a notepad.

#### **5.4.2 Problems Arising from the First Visit**

##### **a. Interview at First Visit**

In booking appointments, politely impress on respondents the need to complete fieldwork before the end of the period. Be careful, so one appointment does not coincide with another in planning your work. For example, do not make two appointments for the same day within a short time interval. Also, take into consideration the distance between the two establishments. Keep all appointments you make with respondents in the notebook.

##### **b. Refusals and non-co-operative respondents**

If a respondent tells you he/she is busy and does not want to be disturbed, ask when you should call back. If, after introducing the Questionnaire to a respondent and he/she is reluctant to be interviewed, impress upon him/her that the information **will be kept** confidential. Explain to the respondent the benefits of the IBES and that it is mandatory to provide the needed information. If he/she still refuses, leave and come back another day to continue the persuasion until the respondent agrees to participate in the survey. If all the persuasion fails, report to your supervisor, who will have to follow up to persuade the respondent. Please remember that no persuasion is enough until the data is correctly collected. Thus, persuasions **MUST** continue until the respondent provides the data.

### **5.5 Meeting with Your Supervisor**

The supervisor will support you in fieldwork. He/she will arrange regular meetings with you. You should report all field challenges to him/her. Before you start enumeration, your supervisor will arrange with you the time and place to meet him during the first weeks. On the Monday of the third week of enumeration, your supervisor will meet you and other enumerators of his/her team. Be on time for the meeting. The purpose of the meeting is for you and your supervisor to discuss any problem you might have encountered during your first visits. All field problems encountered on each day must be reported to the supervisor at the meeting. The supervisor will review enumerator appointments and help to solve problems if any. He/she will arrange subsequent meetings with you. If you have an appointment that morning, you must let your supervisor know beforehand so that the two meetings do not coincide. Where appointment must necessarily come on, supervisor must be informed.

## **5.6 General Enumeration Problems**

Listed below are some problems you may encounter apart from those mentioned under sections 6.3.2 and 6.4.2 of this chapter.

Small-scale establishments such as seamstresses, carpenters and bakers have been known to make appointments and fail to honour the appointment. You need to exercise judgement in such cases to conduct interview on the first visit.

### **5.6.1 Workers on leave**

If you come across establishments where all workers are on mass leave, enquire from the watchman or neighbours when work resumes, attach a note to the Questionnaire, and give it to your supervisor. Arrangements will be made to enumerate the establishment later.

### **5.6.2 Person to give information not available**

If the person who can give you information has travelled, is sick, or not available, find out whether his/her assistant can do so. If not, find out when he/she is expected to be back, attach a note to the Questionnaire, and give it to your supervisor. The note should indicate the firm's name and the proper location to assist in a future visit.

### **5.6.3 Call-Backs**

A respondent may reschedule an appointment and ask you to call back. In a situation where the respondent is not available for the appointment, then enumerators would be required to make several attempts to get the respondent and convince him/her to complete the Questionnaire. If you fail to reach the respondents after several attempts, report to your supervisor.

### **5.6.4 Other problems**

You may encounter other challenges for which specific answers may not be found in the manual. The general principle is to record all such field challenges in your notepad and report them to your supervisor.

## **5.7 Field Checks**

To avoid repeating mistakes, your supervisor will go through every completed Questionnaire with you regardless of whether it was filled out by you or by the respondent. The purpose is to identify and correct errors as quickly as possible. This will ensure that any errors in the two are not carried into the others. Supervisor must go through the first two questionnaires completed by the enumerator on their first interviews. This will ensure that any errors in the first two questionnaires are not repeated in subsequent interviews. When he/she detects errors, he/she will request you to effect the appropriate changes.

### **5.7.1 Check interviews and spot checks**

Your supervisor has been instructed to re-interview some of your respondents. The respondents to be re-interviewed will be selected at random. The supervisor must conduct spot checks to validate data collected. You should therefore conduct all your interviews properly.

## **5.8 Field Records**

The records enumerators keep will enable the IBES Secretariat to know the progress of enumeration in the field. You must therefore keep good records of your work.

### **5.8.1 Use of notebook**

You will notice one of the items in your field kit is a notepad. The notepad is to be used as a diary. You must record all field challenges and problems in it for later discussion with your supervisor.

### **5.8.2 Completing the summary sheet**

After completing each questionnaire, you must fill the summary sheet. You will notice that all the information needed to complete the form would have been recorded in your questionnaire.

In completing the form, write the required information in the columns provided.

Column 1:	Number of establishments visited (reference number)
Column 2:	The names of the establishment
Column 3:	The physical location
Column 4:	Main economic activity
Column 5:	Total number of persons engaged
Column 5:	Date of your First Visit to establishment
Column 6:	Date of collection of questionnaire or interview
Column 7:	Name of respondent ( <b>Ref. Item 20.1</b> on the questionnaire)
Column 8:	General remarks

Before you hand over the form to your supervisor, you must sign it. Your supervisor will check and also sign.

### **5.8.4 Completion of your work**

a. After completion of interview for each day, the enumerator must meet with the supervisor for review. He/she will sit down with you and review your work. He/she will go through your summary sheet and sign it if satisfied.

## **CHAPTER SIX**

### **THE STRATEGY FOR IDENTIFYING BUSINESS AND ENUMERATING BUSINESSES IN GHANA**

The scope of 2023 IBES is broader and requires robust and step-by-step approaches to enumerate each category under the physical and virtual establishment and still have high quality data. This requires a strategic plan that is comprehensive to aid identification and enumeration of all businesses in Ghana. The strategy is guided by the following: (a) geography of the country; (b) modes of identifying structures during the PHC; (c) definition, types, and modes of business activities and operations; and (d) characteristics of special business entities.

#### **6.1 Geography of Ghana**

Though Ghana is divided into 16 administrative regions and 261 Metropolitan, Municipal, and District Assemblies (MMDAs), for achieving complete coverage of all businesses in the country, the 2023 IBES would depend on the Statistical Regions and Districts used in the 2021 PHC for effective management of fieldwork. In all, 32 Statistical Regions and 272 Statistical Districts exist. The Statistical Districts consist of all the districts and the sub-metros in the country. There are also 51,902 Enumeration Areas (EAs) distributed by districts and regions (Appendix.....) are categorized into three types (i.e., Type 1, Type 2 and Type 3), and 141,063 localities. The 51,902 EAs have been grouped into about 10,245 Enumeration Zones (EZs) and 2,338 Supervisory Zones (SZ) for the deployment of field enumerators and supervisors and management of workload for data collection.

The foundational strategy for the 2023 IBES I is to ensure that no business establishment is left out in all 51,902 EAs and 141,063 localities in the country.

#### **6.2 Modes of identifying establishments in structures listed during the 2021 PHC.**

The 2021 PHC categorized structures into residential and non-residential. During the 2021 PHC, 2.6 million<sup>1</sup> non-residential structures were identified. The 2023 IBES will follow the 2021 PHC strategy of identifying structures to locate businesses in these structures. The strategy includes:

- Enumerators are to visit all structures identified in the 2021 PHC. The number of non-residential structures is loaded onto the map to guide the minimum number of businesses required from each EZ. Enumeration will take place in structures that contain businesses.
- In EZs made up of type 1 and 2 EAs, enumerators should canvass the EAs in the EZ to check the terrain of the EZs in correspondence to the EZ maps provided before they start enumeration.
- In EZs made up of type 3 EAs, each locality will be visited and canvassed for businesses.

Procedure for identifying Establishments or businesses in EAs.

- In an EZ with type 1 EAs, where the whole locality is an EA, the field officer should start from

---

<sup>1</sup> This has been adjusted with the removal of bath houses, kitchens, and toilets.



the EA base and move in a serpentine manner until the field officer exhausts all businesses operating in residential and non-residential structures in the locality.

- In an EZ with type 2 EAs, where the locality is made up of more than one EA, pick a strategic point on the boundary of one EA, move along lanes, paths, streets, and roads until all businesses in residential and non-residential structures in the EA are identified and enumerated.
  - In an EZ with type 3 EAs, where several localities constitute an EA, the field officer should start with the largest locality or the EA base, pick a strategic point on the boundary of the locality or settlement and move along lanes, paths, streets, and roads until the field officer exhausts all businesses in residential and non-residential structures in the locality. After that, the remaining localities or settlements in the EZ are to be visited and the process of enumeration repeated until all localities are visited, business identified and enumerated.

### **6.3 Modes of Identifying Establishments under sheds**

Identifying establishments under sheds follows the same strategy as in 6.2 above.

### **6.4 Modes of identifying businesses operating from an open space but fixed location**

The identification of locations of these businesses will be made prior to the fieldwork by the District Statistician (DS) and the Regional Field Supervisor (RFS) to aid planning, determine workload and personnel to be dispatched to such areas. Specifically, the District Statisticians will perform the following:

- i. Identify localities with businesses in open spaces but in fixed locations.
- ii. Estimate the number of businesses per locality in collaboration with market leaders and Assemblymen and Women.
- iii. Identify market days and the peak time for market activities for these localities where necessary.

The RFS will do the following:

- i. Would validate the list of localities in the district with incidence of businesses in open space.
- ii. Visit specific localities and validate the estimates provided by the DS
- iii. Will lead the assignment of enumerators in collaboration with the DS to specific open spaces for enumeration.

In general:

Special teams from the HQ will be assigned to support the RFS and DS to deploy enumerators in specific localities in the following regions, Greater Accra, Ashanti, Eastern, Volta, Bono East, Northern, Upper East, Bono. The assignment of the special teams to these specific localities is due to the high incidence of businesses in open spaces from preliminary data gathered by the DS.

## **6.5 Modes of identifying mobile businesses**

- A. District statisticians are to undertake the following 'ground-truthing' activities in addition to the procedures in 6.4 above.
  - i. Identify major hotspots for mobile business activities in the district.
  - ii. Identify the leadership of these mobile business, if any
    - iii. Identify the peak days and times of mobile business in each hotspot.
    - iv. Estimate the number of mobile businesses in each hotspot during the peak period in collaboration with the leaders, Assemblymen and Women.

## **6.6 Modes of identifying establishments in structures not intended for its original purpose**

Enumerators will identify these establishments in the EZ using the following parameters:

- i. Establishments operating temporarily in structures not intended for its original purpose. For example, churches in schools
- ii. Establishments running shifts with other establishments in the same structure. For example, night market.
- iii. Businesses operating in locations temporally allocated for such activities. Example Sunday markets.

## **6.7 Modes of identifying virtual businesses**

- i. HQ has received details of virtual businesses in Ghana from the Ghana Revenue Authority (GRA).
- ii. During the visit to every structure, enumerators will enquire about the activities of virtual businesses in or around the structure that operate as online business. The enumerators are to visit these structures and enumerate them.
- iii. HQ will match the list of virtual businesses obtained from GRA with data collected from the field to identify the gaps and make follow ups to complete formal virtual businesses.

## **6.8 Use of Signposts**

The use of signposts by businesses provides some information. Where they don't find the businesses, they should enquire from the community about the whereabouts of such businesses. If the establishments are within the EZ, the Enumerator should proceed and enumerate them.

## **6.9 Instruments and approaches for enumerating business establishments.**

IBES I uses three questionnaires to enumerate all business activities in the country. These are the establishment questionnaire, the open space but fixed location questionnaire, and the mobile business

questionnaire.

- a. The establishment questionnaire will be used for businesses operating from residential and non-residential structures and those operating under separate and independent shelters without enclosure, either completed or uncompleted. This will also be used to capture virtual businesses.
- b. The open space questionnaire: This questionnaire will be used for business activities operating in open spaces but not in stalls or under sheds that are independent of or around a designated area for market activities.
- c. The mobile business questionnaire will be used for business activities undertaken not in structures or fixed locations but are mobile. These include vendors who travel or move on foot from place to place, selling goods or providing services.

Four approaches will be used to enumerate all the business activities:

1. Direct interview using Computer Assisted Personal Interview (CAPI)
2. Questionnaire drop off and pick up (PAPI)
3. Telephone interview (TAPI)
4. Online questionnaire (CAWI)

## **6.10 Strategies for enumerating businesses**

### ***6.10.1 Enumerating Physical Businesses***

#### ***6.10.1.1 Establishments in structures/temporal fixed locations but in structures***

- xiv. All four approaches for data collection would be deployed.
- xv. After locating their EZs, enumerators should inform opinion leaders about the Census and introduce the purpose and objective of their visit.
- xvi. Present the introductory letter.
- xvii. Locate the establishment.
- xviii. Introduce yourself, locate a respondent, and administer the questionnaire.
- xix. Start questionnaire administration with CAPI using an appropriate questionnaire.
- xx. Provide paper questionnaires or online links on demand.
- xxi. If a respondent wants to complete the questionnaire himself/herself, leave the questionnaire behind and make an appointment with him/her when you return to collect it.
- xxii. If a respondent needs assistance with completing the questionnaire, assist immediately or book an appointment with him/her as to when to go back for the interview.
- xxiii. If the respondent does not ask for the questionnaire, you should not leave it behind.
- xxiv. If he/she asks to study it, wait for him/her to do so
- xxv. If he/she insists on keeping it, give out one copy only.
- xxvi. Enumerators should book appointments where necessary by politely impressing on respondents the need to complete fieldwork before the end of the period.

Generally, the following should be observed by the Enumerator during enumeration:

- In an EZ with type 1 EAs, where the whole locality is an EA, the Enumerator should

- exhaust all businesses in an EA or the entire locality before moving to the next.
- In an EZ with type 2 EAs, where the locality is made up of more than one EA, enumerators should exhaust all businesses in an EA before moving to the next EA.
- In an EZ with type 3 EAs, where several localities constitute an EA, the Enumerator should exhaust all businesses in localities in turns.

#### ***6.10.1.2 Enumerating businesses operating from an open space but fixed location***

- x. Direct interviews using CAPI would be used for data collection.
- xi. Highly densely populated business areas will be assigned an additional enumerator in that EZ.
- xii. Less densely populated areas, such as those in neighbourhoods, will be enumerated by the primary Enumerator for that EZ.
- xiii. After locating their EZs, enumerators should inform opinion leaders about the IBES and introduce the purpose and objective of their visit.
- xiv. Locate the areas identified by the district statistician and the RFS for such activities.
- xv. Introduce yourself, locate a respondent, and administer the questionnaire.

#### ***6.10.2 Enumerating mobile businesses.***

- ix. Direct interviews using CAPI would be used for data collection.
- x. Locate the areas identified by the district statistician and RFS for such activities.
- xi. After locating the hotspots for mobile businesses, enumerators should inform the leaders about the Census and introduce the purpose and objective of their visit.
- xii. All enumerators in a district will be assigned to hotspots for mobile businesses a day before commencing fieldwork.
- xiii. Interviewers will be deployed in batches for each location. However, the number for each batch will depend on the density of these activities.
- xiv. Each business activity in this category will be interviewed and given an identification tag.
- xv. Introduce yourself, locate a respondent, and administer the questionnaire.

#### ***6.10.3. Enumerating virtual businesses***

- xi. Similar to businesses in structures, virtual businesses will be enumerated in their respective structures using the approach of businesses in structures.
- xii. Follow up interviews will be conducted for those who were not covered after validating the list external data sources (GRA).
- xiii. An establishment questionnaire will be used to capture virtual businesses.
- xiv. Telephone interviews would be the dominant approach. However, the appropriate approach would be deployed where the respondents decide otherwise. Provide paper questionnaires or online links on demand.
- xv. For TAPI, CAPI, and PAPI, introduce yourself and administer the questionnaire.
- xvi. Start questionnaire administration with CAPI using the appropriate questionnaire.
- xvii. If a respondent wants to complete the questionnaire himself/herself, leave a PAPI

- questionnaire behind and make an appointment with him/her when you are to return to collect it.
- xviii. If a respondent needs assistance completing the questionnaire, assist immediately or book an appointment with him/her as to when to go or call back for the interview.
  - xix. If the respondent does not ask for the questionnaire, you should not leave it behind.
  - xx. If he/she asks to study it, wait for him/her to do so.
  - xxi. If he/she insists on keeping it, give out one copy only.
  - xxii. Enumerators should book appointments where necessary by politely impressing on respondents the need to complete fieldwork before the end of the period.

## 6.11 Quality Assurance and complete coverage

As part of strategy designed to ensure effective quality assurance, a dashboard will be developed and used for monitoring of fieldwork for coverage and validation of work within EZs. Enumerators would be monitored to ensure that all structures are visited and all businesses are enumerated. Additionally, a comparison would be made with the 2021 PHC to validate the number of non-residential structures visited by the Enumerator to ensure that all non-residential structures to be visited for complete coverage are complied with.

To guarantee quality assurance and complete coverage, the country is divided into 272 districts, each comprising Enumeration Zones (EZs). A supervisor will be assigned an average of 4 enumerators, and each Enumerator will be assigned an enumeration zone. An EZ map will be provided to guide the enumerators to know the boundary of the area in which he/she is working. An EZ map is made up of one or more EAs. At the minimum, it is expected that 2.6 million establishments, an equivalent of the total number of the use non-residential in the 2021 PHC, will be collected.

- **Use of locality list from PHC to validate localities in IBES I**

To ensure that all localities are covered, the localities recorded will be validated with the 141,063 localities from the PHC. If a locality from the PHC is not recorded in the IBES I, further verification would be made by the Enumerator assigned to that locality to ascertain if the locality was visited and no establishment found. The locality list serves as a guide but is not exhaustive. Enumerators must contact opinion leaders for information on new localities, not on the list and include them in the enumeration.

- **Comparison of ISIC between PHC and IBES I at the district level:**

Further quality checks to ensure consistency in activity description between the classification of activities recorded in PHC and IBES I. The sector classification of activities recorded in PHC will be compared with that of IBES I to ensure consistency. This will be done using the ISIC classification of the individual workers in the Census for a district and the ISIC classification of establishments in the same district.

- **Field Checks:**

To avoid repeating mistakes, the supervisor will review every completed questionnaire. The purpose is to detect and correct errors as quickly as possible.

- **Re-interviews:**

As part of the quality checks, the field supervisors will also be expected to conduct re-interviews to ascertain the data quality collected by their respective enumerators. For the Ghana 2023 IBES, re-interviews involve supervisors re-visiting selected establishments and administering a shorter questionnaire to gather the information that will later be compared with the corresponding information collected earlier by enumerators to help assess the latter's ability to collect complete and accurate data in the assigned area.

- **Validating with 2021 PHC non-residential structures:**

In order to ensure complete coverage, the over 2.6 million non-residential structures identified in the 2021 PHC will be plotted on the dashboard using the GPS of these structures. At the minimum, all the non-residential structures identified are expected to be visited. When these structures are left out during data collection, the Enumerator will be prompted to ensure these structures are visited and data collected.

- **Spot-checks**

At any point during fieldwork, spot-checks will also be necessary, whereby the DQMs will run data quality routines at the regional level and pick out EZs or Supervisory Zones with challenges requiring additional attention. In particular, challenges that lead to potential omissions, duplications, or fabrications during enumeration. Here, the DQMs may direct the supervisor and the Enumerator to specific EAs where such challenges exist for 'ground-truthing' or correction. The spot-checks will be based on the data quality monitoring scripts run by the DQMs.

## **6.12 Mitigating Strategies to Challenges**

The success of the IBES depends, to a large extent, on the quality of data that will be collected from the field. Field Officers from the District Statisticians to the field enumerators play important roles in the IBES exercise so as to obtain complete coverage and collect quality data. The various strategies elaborated above are to help in that course. However, it is expected that some challenges may occur on the field that may delay completion. This section presents some strategies to help mitigate possible challenges that may occur on the field before and during and after the data collection. This includes:

1. Extend days for fieldwork where data collection is incomplete
2. Replace absentee, indisposed, and ineffective Field Officers.
3. Deploy additional hands and resources to complete the assignment
4. Retrain Field Officers who are found to lack understanding of the concepts.

### **Measures to enumerate businesses in gated communities**

1. Managers of the gated communities would be engaged prior to the enumeration period to enquire about the possible businesses within the communities.
2. They would be educated about IBES and the need to enumerate these businesses within the gated communities.

### **Measures to enumerate foreign owned establishments and difficult respondents**

1. For foreign owned businesses, the Ministry of Foreign Affairs would be engaged to liaise with the embassies to inform them about IBES and request their assistance in completing the task.
2. Undertake stakeholder engagement targeting cluster of businesses
3. Ensure intensive publicity before and during the exercise
4. Work with the Ministry of Trade and Industry, other MDAs, umbrella bodies, associations and groups, to assist in persuading respondents to participate in the process

# **CHAPTER SEVEN**

## **PREPARING FOR AN INTERVIEW**

### **7.1 Introduction**

As mentioned earlier, your training will consist of a combination of lectures and practical sessions. You must be thoroughly conversant with the instructions and the questionnaires so that you can approach the respondents with confidence.

### **7.2 Appearance and whom to Interview**

#### **7.2.1 Your Appearance**

You should be neatly dressed. You should not wear fancy clothing. You should be cheerful, polite and confident, because in most cases the management of such firms' will be aware of a census being taken and will expect a visit from an enumerator, and will therefore be cooperative. Make sure you have the following items before an interview:

1. Your identity card
2. Introductory letter to the respondent
3. The questionnaire for the establishment
4. Your instruction manual
5. Your pen

#### **7.2.2 Whom to interview**

Enter the premises. Tell the receptionist or the person you may meet that you are an Economic Census enumerator from the Ghana Statistical Service undertaking phase 1 of the IBES and ask to see the manager. If he is not in, ask to see an assistant manager or the accountant. Do not be easily put off by a receptionist who says the manager is "busy". Show your identity card, and ask him/her to inform the manager you need to see him for twenty minutes on the Economic Census. If you are unable to get through to the manager, see the accountant, or assistant manager. On meeting any of the aforementioned, introduce yourself, show your identity card and hand him/her the letter of introduction. Explain the purpose of your visit and ask who will be responsible for completing the questionnaire. Arrange an appointment to return to pick up the questionnaire or to complete the questionnaire by interview. Thank everyone on your way out and depart.

### **7.3 Approaches to Enumerating Establishments**

Enumerators should give respondents the opportunity to choose from any of the three forms of questionnaire tool thus. There are five approaches to enumerating establishments:

1. Questionnaire drop off and pickup
2. Direct interview using CAPI
3. Telephone interview
4. Online questionnaire
5. Combination of 1 and 2



Each of these is described below.

### **7.3.1 Questionnaire drop off and pick up**

If the establishment wishes the questionnaire to be left for them to complete, drop it off and arrange an appointment to pick it up. On the appointed day, meet the receptionist and remind him/her of your previous appointment with the manager (or whoever the respondent is). Greet the respondent and state that you have come back for the census questionnaire. Thank him/her, and say that you are required to review it.

#### **Review Procedure.**

1. Confirm that the information preprinted in the identification is correct if no amendment has been made.
2. Review the description of the principal industry. Is it adequate?
3. Ask the respondent if he/she had any difficulties in completing the questionnaire and write them in your note book.
4. Complete section F of the questionnaire. Check for completeness and accuracy.
5. Ask respondent to complete certification if this has not been done.
6. Thank the respondent for his/her cooperation and depart.
7. Key in the response into the CAPI and sync to HQ.

### **7.3.2 Direct interview procedure**

Meet the receptionist and follow the procedures described in 6.2.2. If necessary remind the respondent of your appointment. Take questionnaire out and begin the interview.

#### **Procedure:**

1. Explain that the census is conducted for industry, services, and agriculture sectors of the economy. Explain also that the information is confidential
2. Proceed to section A of questionnaire. These questions are quite easy, and should enable you to build up a feeling of friendliness with your respondent. His cooperation will increase as he/she realize you know what you are about. Continue with the other questions and complete the interview.
3. Refer to your manual if necessary. It is meant to help you
4. Complete Section F at the end of the questionnaire and ask the respondent to complete the certification.
5. Thank the respondent for his cooperation and depart.

### **7.3.3 Interrupted interview**

In a situation where the respondent inform you that he/she has another appointment or the data you are requesting is not readily available whilst the interview is still ongoing, then you need to do one of the following.

- Find out if any other person can assist.
- If the data is not readily available, make another appointment.

### **7.3.4 Telephone interview**

#### **Before The Call**

There are several things you need to have ready before you even start dialing a number to start an interview. You must make sure you are in an environment that is conducive for your calls, so there should be no disturbance around you. You should also make sure the equipment you will be using for the interview process- your phone and tablets – are in good condition. Phone interviews require you to be very attentive, otherwise you might miss something, so it is important that you have everything prepared before you begin. Specifically:

- Make sure you can get as much privacy as possible.
- Inform the responds of the establishment of what you are about to do, so you are not disturbed. If possible, get a private room. Write boldly on a piece of paper: DO NOT DISTURB, and place it on the door. It is important to minimize distractions, so your respondent does not become bored or frustrated and hang up.
- Make sure you have your tablet ready, fully-charged and open to the first household you will interview
- Check the volume on your phone. Do a test with a friend to make sure you can be heard and you can hear clearly. You don't want to miss anything the respondent says because your volume is too low.
- Have a clock in front of you, and time yourself; so you can pace your questions.

### **7.3.5 Online Questionnaire**

In the instance where an establishment opt out for online questionnaire, enumerators are to initiate the process with the CAPI on their mobile device (tablet), thus:

- Filling the entire section A (identification section), which includes generating the Reference number, picking GPS coordinates and other relevant areas in the Section.
- Sending the generated reference number on the CAPI via mail through the CAPI to the respondent. The respondent will continue the rest of the form using the given reference number.

Enumerators are to ensure respondents complete the form by doing a follow up either through a phone call or an in person visit.

## **7.4 Conducting an Interview**

### **7.4.1 Interview technique**

Successful interviewing is an art and should not be treated as a mechanical process. Each interview is a new source of information, so make it interesting and pleasant. The art of interviewing develops with

practice but there are basic principles which should be followed to make one a very successful interviewer. In this section, you will find a number of general guidelines on how to build rapport with the respondent and conduct a successful interview.

#### ***7.4.2 Building rapport with the respondent***

The enumerator and the respondent are strangers to each other and one of the main tasks of an interviewer (enumerator) is to establish rapport. The respondent's first impression of you will influence his/her willingness to cooperate with you.

Be confident and courteous. Smile, and make a salutation like "Good morning", and proceed with your introduction, something along the lines of; "My name is ..... I am an enumerator from the Ghana Statistical Service, I'm here to conduct an interview on the IBES.

Never adopt an apologetic manner, and do not use words like "could you spare a few minutes? Would you mind answering some questions? Yours is an important national assignment, there is no need to be apologetic. On the other hand, don't try to be overbearing. Courtesy and politeness does it. For example, say "I would like to ask you some questions/I would like to talk to you for a moment".

#### ***7.4.3 Stress confidentiality***

If the respondent is hesitant about giving data, explain that the information is confidential. Data is only published in aggregated form and not on firm level. It is therefore impossible to identify information on any particular establishment. Show him your copy of the IBES documents. Do not mention the names of other establishments or respondents you have enumerated. Be very careful that you only have the respondent's questionnaire before you. Any other questionnaires must be in their envelopes, in the satchel. The satchel must be zipped. Your careful handling of questionnaires will do much to build up the respondent's confidence.

#### ***7.4.4 Length of interview***

Most respondents may not be comfortable with the length of the interview. Many of them may express concern about how long the interview will take. Patiently and politely inform him/her that the interview would not take long and that about 30 minutes is required and show him the questionnaire. If the respondent persists that another day be fixed, then book an appointment.

#### ***7.4.5 Remaining neutral***

When assisting the respondent to complete the questionnaire you must be disciplined in your reaction to some of the information he/she may give you. Do not by your expression or your reply register disbelief in the data he has given you. Be calm and neutral whenever you need to indicate that the data is inconsistent with other data previously given. Do not express your political affiliation when political issues are raised.

#### ***7.4.6 Do not change the sequence of the questions***

Ask the questions in the order as they are on the questionnaire. Do not change sequence of the question. When assisting with the completion of the questionnaire, make sure that both you and the respondent each have a questionnaire before you.

#### ***7.4.7 Don't allow the respondent to rush through the interview***

Respondents sometimes try to rush through the interview. Politely say that you have to get answers to

each question, and calmly proceed with the interview.

1. Always be polite and patient
2. Don't ever express disbelief with the respondent's answers
3. Never argue.
4. Be professionally persistent.

## **CHAPTER EIGHT**

### **ADMINISTRATION OF QUESTIONNAIRE**

#### **SECTION A**

#### **IDENTIFICATION AND LOCATION OF ESTABLISHMENT**

This section seeks information on identification and location of the establishments which is very important in the analysis of the entire data. Enumerators should therefore ensure that respondents provide the information below so that the establishments could be identified for subsequent visits.

Enumerators should ensure that respondents provide answers to all questions in this section. Enumerators should also leave spaces between names of persons, establishments, etc.

#### **A0: What is the use of this structure/space**

1. Strictly Non-residential
2. Residential and Non-residential
3. Strictly residential (end interview in this structure)

Field officers must enquire from respondents about the primary use of the structure they visit. Enumerators need to enquire from any residential structure they visit in their EZ, whether there are some business activities that take place there. Where the respondent indicates the existence of business activity in their residency (i.e., their place of primary abode), then they must be enumerated as establishment. However, when they indicate the structure is strictly for residential purposes, then you must enter the appropriate response and discontinue the interview.

#### **Identification of Structures**

Information related to regional code, district code, district type sub-metro, EZ and EA numbers would be pre-loaded on the tablets that would be used by the field officers for enumeration. Field officers would however be required to provide information on the establishment number (Est. No). This must be serialised based on the enumeration of each establishment visited by the enumerator. For example, if the enumerator visits the first establishment in his or her EZ then the Est. No. would be 0001. The next establishments visited in the EZ becomes 0002, 0003 till all establishments in the EZ are completed. The establishment number should always be a 4-digit number.

#### **Figure 7.1: Section A0**

Reference Number	Reg. Code	District Code	District Type	Sub-Metro Code	EZ No.	EA No.	Est. No.
	03	01	3	01	136	041	0018
GPS Code:							

The Field officer must ensure that the location icon on the tablet is active. This is what would allow the field officer to pick the GPS location of the business. The enumerator must ensure that the recorded GPS location is at an accuracy of 5.0 metres or below.

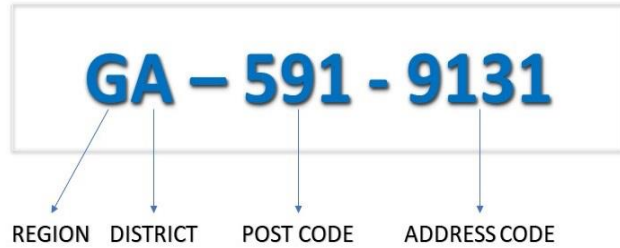
### Section A: IDENTIFICATION OF ESTABLISHMENT

The enumerator must state the name by which the establishment is known by the owner or registered with the Registrar General’s Department. E.g., Interplast Ghana Limited, Tema Oil Refinery, Etc. Information on Region name (A2), Region Code (A3), District Name (A4) and Code (A5), Sub-Metro Name (A6) and Code (A7), would all be pre-loaded in the tablet the field officer would be using. However, the field officer must familiarise him/herself with all the codes associated with this section which have been provided in appendix 1 & 2 of this manual. The enumerator would need to know these codes to aid the completion of paper instruments that some establishments would request. Field officers should always prompt respondents that choose to complete paper instruments of the existence of these codes behind the paper instruments. Field officers must always ensure that Identification information provided by respondents who filled the instruments by themselves are accurate.

Figure 7.2: Section A

A1: Establishment Name														
T E M A O I L R E F I N E R Y														
A2: Region Name										A3: Region Code				
G R E A T E R A C C R A										0 3				
A4: District Name										A5: District Code				
T E M A E A S T										0 1				
A6: Sub-Metro Name										A7: Sub-Metro Code				
T E M A M E T R O P O L I T A N										0 1				
A8: Ghana Post Address:														
T M - 2 9 1 5 - 0 4 1 5														
A9: Locality Name												A10: Locality Code		
T E M A												0 1 2		
A11: Suburb / Estate / Residential Area (E.G. FREE PIPE, ABEKA)														
T E M A H E A V Y I N D U S T R I A L A R E A														
A12: Structure / Street Address (E.G. 121 FANOFA ROAD)														
V A L C O R O A D , H E A V Y I N D U S T R I A L A R E A														
A13: Exact Location of Establishment (E.G. NII LANTEY’S HOUSE BEHIND L/A PRIMARY SCHOOL)														
O P P O S I T E C O M M U N I T Y O N E M A R K E T														
A14a: Type of Structure										A14b: Is the structure movable or non movable				
1. Structure with enclosure 2. Structure without enclosure / Shed 3. Stall										1. Movable 2. Non movable				
1										2				

The Ghana Post Address (A8) of the establishment must be clearly stated. In order to get the accurate Ghana Post GPS address, the field officer must confirm whether the address is available either on the structure or ask the respondent. Where the establishment does not have Ghana Post Address, do **Not** generate one for them. An example of Ghana Post GPS address is shown below.



Field officers are expected to clearly state the name of locality (**A9**) they are enumerating from in the CAPI. The locality code (**A10**) should be left by the enumerator as it would be provided by officials of GSS. The enumerator should clearly state the name of the suburb (**A11**) in which the establishment is located. For instance, where the establishment is located in a village with no suburb then the enumerator should write the name of the village in the box provided for suburb. The enumerator should enquire from the respondent the exact name of the street address (**A12**) closest to the establishment. See Figure 8.2 for example of how to state the street address of an establishment. The street address could also be in the following form

- Plot No.42, Oxford Street
- No.6 Farrar Avenue,
- Hse No.82, Chief’s Palace Lane
- Opanyin Dadson’s Hse, Market Street

The interviewer should also clearly state the exact location (**A13**) where the establishment is situated (see Figure 8.2). e.g.

- Mortey’s house behind the Akogolo pito seller’s house.
- Adjacent Roman Catholic Church
- Opp. Public Toilet along the main station
- Opp. Muna’s saloon, behind Odorgonno Sec. Sch.

After indicating the exact location of the establishment, the enumerator must first indicate the type of structure (**A14a**) the establishment operates from (See Figure 8.2). i.e., the enumerator must indicate whether it is a structure with enclosure or structure without enclosure. The figures below provide examples of such structures.



## Structures with Enclosures



**Structures without enclosure**

The interviewer must also clearly state whether the structure the establishment operates from is a movable or a non-movable structure (A14b). Movable: –examples are Kiosk, Container etc. Non- Movable: – examples are Banks, Filling Station, companies in buildings, etc.



**Movable Structure**



**Non-Movable Structure**



## SECTION B: CONTACT DETAILS OF ESTABLISHMENTS

This section seeks information on contact details of the establishments. The information in this section is very important in contacting the establishment. Enumerators must ensure that the telephone number they obtain from the establishment are 10-digits. In addition, enumerators must call the telephone number to confirm it works before leaving the establishment. Enumerators can record up to three telephone numbers.

**B1: Telephone Number**

**B2: Telephone Number**

**B3: Telephone Number**

State the telephone number (fixed line) of the establishment e.g., 0302-682640, 0243-889810

--	--	--

**B4: Establishment Email**

State the email address of the establishment e.g., info@unilever.gh.com

--	--	--

**B7: Website**

State the website of the establishment e.g. www.statsghana.gov.gh

--	--	--

**Figure 7.3: Section B**

SECTION B: CONTACT INFORMATION OF ESTABLISHMENT																													
<b>B1: Telephone Number</b>	<b>B2: Telephone Number (1)</b>	<b>B3: Telephone Number (2)</b>																											
<table border="1" style="width: 100%; height: 22px; text-align: center;"> <tr> <td style="width: 33.33%; color: red;">0</td> <td style="width: 33.33%; color: red;">2</td> <td style="width: 33.33%; color: red;">6</td> </tr> <tr> <td style="width: 33.33%; color: red;">2</td> <td style="width: 33.33%; color: red;">0</td> <td style="width: 33.33%; color: red;">4</td> </tr> <tr> <td style="width: 33.33%; color: red;">9</td> <td style="width: 33.33%; color: red;">3</td> <td style="width: 33.33%; color: red;">3</td> </tr> </table>	0	2	6	2	0	4	9	3	3	<table border="1" style="width: 100%; height: 22px; text-align: center;"> <tr> <td style="width: 33.33%; color: red;">0</td> <td style="width: 33.33%; color: red;">5</td> <td style="width: 33.33%; color: red;">9</td> </tr> <tr> <td style="width: 33.33%; color: red;">3</td> <td style="width: 33.33%; color: red;">6</td> <td style="width: 33.33%; color: red;">6</td> </tr> <tr> <td style="width: 33.33%; color: red;">0</td> <td style="width: 33.33%; color: red;">1</td> <td style="width: 33.33%; color: red;">6</td> </tr> </table>	0	5	9	3	6	6	0	1	6	<table border="1" style="width: 100%; height: 22px; text-align: center;"> <tr> <td style="width: 33.33%; color: red;">0</td> <td style="width: 33.33%; color: red;">2</td> <td style="width: 33.33%; color: red;">6</td> </tr> <tr> <td style="width: 33.33%; color: red;">1</td> <td style="width: 33.33%; color: red;">8</td> <td style="width: 33.33%; color: red;">9</td> </tr> <tr> <td style="width: 33.33%; color: red;">1</td> <td style="width: 33.33%; color: red;">0</td> <td style="width: 33.33%; color: red;">0</td> </tr> </table>	0	2	6	1	8	9	1	0	0
0	2	6																											
2	0	4																											
9	3	3																											
0	5	9																											
3	6	6																											
0	1	6																											
0	2	6																											
1	8	9																											
1	0	0																											
<b>B4: Email</b>																													
<table border="1" style="width: 100%; height: 22px; text-align: center;"> <tr> <td style="width: 33.33%; color: red;">i</td> <td style="width: 33.33%; color: red;">n</td> <td style="width: 33.33%; color: red;">f</td> </tr> <tr> <td style="width: 33.33%; color: red;">o</td> <td style="width: 33.33%; color: red;">@</td> <td style="width: 33.33%; color: red;">u</td> </tr> <tr> <td style="width: 33.33%; color: red;">n</td> <td style="width: 33.33%; color: red;">i</td> <td style="width: 33.33%; color: red;">l</td> </tr> <tr> <td style="width: 33.33%; color: red;">e</td> <td style="width: 33.33%; color: red;">v</td> <td style="width: 33.33%; color: red;">e</td> </tr> <tr> <td style="width: 33.33%; color: red;">r</td> <td style="width: 33.33%; color: red;">.</td> <td style="width: 33.33%; color: red;">g</td> </tr> <tr> <td style="width: 33.33%; color: red;">h</td> <td style="width: 33.33%; color: red;">.</td> <td style="width: 33.33%; color: red;">c</td> </tr> <tr> <td style="width: 33.33%; color: red;">o</td> <td style="width: 33.33%; color: red;">m</td> <td style="width: 33.33%;"></td> </tr> </table>			i	n	f	o	@	u	n	i	l	e	v	e	r	.	g	h	.	c	o	m							
i	n	f																											
o	@	u																											
n	i	l																											
e	v	e																											
r	.	g																											
h	.	c																											
o	m																												
<b>B5: Website</b>																													
<table border="1" style="width: 100%; height: 22px; text-align: center;"> <tr> <td style="width: 33.33%; color: red;">w</td> <td style="width: 33.33%; color: red;">w</td> <td style="width: 33.33%; color: red;">.</td> </tr> <tr> <td style="width: 33.33%; color: red;">u</td> <td style="width: 33.33%; color: red;">n</td> <td style="width: 33.33%; color: red;">i</td> </tr> <tr> <td style="width: 33.33%; color: red;">l</td> <td style="width: 33.33%; color: red;">e</td> <td style="width: 33.33%; color: red;">v</td> </tr> <tr> <td style="width: 33.33%; color: red;">e</td> <td style="width: 33.33%; color: red;">r</td> <td style="width: 33.33%; color: red;">.</td> </tr> <tr> <td style="width: 33.33%; color: red;">c</td> <td style="width: 33.33%; color: red;">o</td> <td style="width: 33.33%; color: red;">m</td> </tr> </table>			w	w	.	u	n	i	l	e	v	e	r	.	c	o	m												
w	w	.																											
u	n	i																											
l	e	v																											
e	r	.																											
c	o	m																											



## SECTION C

### HEAD OFFICE INFORMATION AND FEATURES OF ESTABLISHMENT

In this section, the questionnaire seeks to find out the contact information and the operational characteristics of the establishment.

#### C1: Form of organization

This question seeks to find out whether the establishment is the head office, subsidiary or single establishment.

1. **Single establishment:** This option should be selected only if the establishment neither controls, nor is owned and controlled by another establishment. If this option (single establishment) is selected skip to C16.
2. **Head office:** This option refers to establishments that own and control other businesses established to operate under their supervision. The head office is sometimes referred to as the parent establishment. If the form of organization is head office then USE FORM A TO PROVIDE LIST OF SUBSIDIARIES / BRANCHES. GO TO C16 IF RESPONSE IS 1 OR 2
3. **Subsidiary/Branch:** Choose this option if the establishment is owned and controlled by a parent establishment. (Head office)

#### NOTE:

Name and Address of Head Office

This section is only applicable to respondents who ticked subsidiary/branch (as response to C1). Information sought for in this section has been supplied in section A (A1, A9, A11 and A12).

#### Figure 7.4: Section C

C2: Name of Head Office	
<span style="font-family: monospace; font-size: 1.2em; letter-spacing: 0.5em;">U N I L E V E R G H A N A L I M I T E D</span>	
C3: Region Name where Head Office is located	C4: Region Code
<span style="font-family: monospace; font-size: 1.2em; letter-spacing: 0.5em;">G R E A T E R A C C R A R E G I O N</span>	<span style="font-family: monospace; font-size: 1.2em; letter-spacing: 0.5em;">0 3</span>
C5: District Name where Head Office is located	C6: District Code
<span style="font-family: monospace; font-size: 1.2em; letter-spacing: 0.5em;">T E M A M U N I C I P A L</span>	<span style="font-family: monospace; font-size: 1.2em; letter-spacing: 0.5em;">█ 3 2</span>

Enumerators should note that sections C2-C15 should only be completed by subsidiary establishments.



**Section C16 – C20** seeks information on the registration details, ownership and legal structure of the establishment. The concept of incorporation, legal and ownership structure of businesses are defined as follows.

**The Legal Structure of Businesses:** The business legal structures are the different categories that define the type of setup a business should have and how the business is registered. An organization's legal structure is a key determinant of the activities that it can undertake including responsibility for obligations of the business. The legal structure determines the regulations that the business must adhere to. The legal system of Ghana defines several forms of organizations. Example, the Companies Act, 2019 (Act 992).

**Incorporation:** This is the formal, legal process by which a business entity is formed and registered. Once a business is incorporated, it becomes a separate legal identity. It can sue and be sued.

**The ownership structure of the business:** This refers to the composition of the business' ownership, including the number and type of owners, the percentage of ownership held by each owner. The owners of the business are individuals or/and entities who hold a legal or equitable interest in the business.

### **C16: Type of Registration**

#### **C16a: Is the establishment registered with the Registrar General's Department (RGD)?**

This question elicits information on whether the establishment is registered with the Registrar General's Department (RGD). Thus, the response options include

- A. Yes B. No, Yet to Register

The **Registrar General's Department** is the government agency mandated for the administration of entities including the registration of businesses, industrial property, marriages, administration of estates, and public trustees.

#### **C16b: Which of the following institutions have you registered with?**

This question seeks to enquire from the respondents if the establishment is registered with any of the government agencies below (PLEASE TICK).

#### **NOTE: MULTIPLE RESPONSES ARE ALLOWED**

- A. **Ghana Revenue Authority:** The Ghana Revenue Authority (GRA) registers organisations for Tax Identification Numbers (TIN). It is the government agency charged with the task of assessing, collecting and accounting for tax revenue in Ghana. The GRA is mandated to ensure maximum compliance with all relevant tax laws.
- B. **Ghana Standards Authority:** The Ghana Standards Authority (GSA) is the government agency responsible for developing, publishing and promoting standards in industries and public institutions in Ghana.
- C. **Food and Drugs Authority (FDA):** This is the national regulatory body responsible for the regulation of food, food supplements, drugs, medical devices, household chemical substances, herbal and homeopathic medicines, cosmetics, veterinary medicines,

tobacco and tobacco products, blood and blood products as well as the conduct of clinical trials protocols.

- D. **Environmental and Protection Agency (EPA):** This is the leading government agency responsible for protecting and improving the environment in Ghana.
- E. **District Assembly:** The Constitution of Ghana designates District Assemblies as the highest legislating, political, budgeting and planning authority at the local level. The District Assembly is the lowest level of the three-tier governance structure of Ghana and is responsible for the development and management of human settlements and the environment in the district.
- F. Other Specify.....
- G. None of the Above

Other regulatory and licensing bodies have been provided in option F as follows:

1. Pharmacy Council
2. Health Facilities Regulatory Agency (HeFRA)
3. Allied Health
4. Ghana Education Service (GES)
5. National Council for Technical and Vocational Education and Training (NACTVET)
6. Ghana Cocoa Board
7. Forestry Commission
8. Ghana Energy Commission
9. Water Resource Commission
10. National Petroleum Authority
11. Petroleum Commission
12. Ghana Tourism Authority
13. Minerals Commission
14. Ghana Civil Aviation
15. Drivers and Vehicle Licensing Authority (DVLA)
16. Ministry Of Environment, Science, Technology and Innovation (MESTI)
17. General Legal Council
18. Ministry of Works and Housing

**Note:** Options A, B, C and D do not apply if the establishment is yet to register with the RGD (that is if option A is chosen in C16a). Thus, establishments registered with Ghana Revenue Authority, Ghana Standards Authority, Food and Drugs Authority, and Environmental and Protection Agency must necessarily register with the Registrar General’s Department (RGD).

If the establishment is not registered with any of the institutions listed, including the ones indicated in option F, then the enumerator should select option G.

### **C17: Type of Ownership**

The question solicits information on who owns the establishment. The options considered are:

1. State owned,
2. Private owned and
3. Public-Private Partnership.

1. **State Ownership** refers to businesses that are wholly owned by government or

- the state.
2. **Private owned** refers to businesses or establishments that are wholly owned by private people. Such an establishment may either be owned by an individual or a group of persons.
  3. **Public-Private Partnership** also referred to as Private or State Ownership are businesses that are jointly owned by the state and private individual(s) or firm(s)

### **C18: TYPE OF LEGAL ORGANIZATION**

Businesses exist by virtue of the law and have legal status. Thus, the legal status of establishments is derived from the country's laws and regulations. The legal forms of organisation include Private limited company, Sole proprietorship, Partnership etc. Thus, C18 seeks to elicit information on the legal type of the establishment. Enumerators are to the option that applies from the following list:

**Note:** The following definitions and descriptions are distilled from the Companies Act 2019 and the Registrar General's Department.

**Sole Proprietorship:** This is a business owned and controlled by a single individual. There is no legal distinction between the owner and the business. The individual proprietor has the right to all the profit and responsible for all liabilities. In the local parlance, another name for Sole Proprietorship is Sole Trader or a one man business.

**Partnership:** This is a formal arrangement by two or more individuals/entities to manage and operate a business and share its profits/ losses as specified in the partnership agreement. Partnership is made up of a minimum of two (2) and maximum twenty (20) persons who engage in profit making business. Their relationship is defined by an Agreement/Deed.

**Limited Liability Company:** This is a private/public company whose owners are legally responsible for its debts only to the extent of the amount of capital they invested/guaranteed. Limited liability companies can be Company Limited by Guarantee and Company Limited by Shares.

**Unlimited Liability Company (Private and Public):** Unlimited Liability Company has the same composition as a limited liability company except that the liabilities of its owners are unlimited. It is usually registered by professional body such as Law firms, Auditing and Architectural firms Thus, the owners assume full responsibility for all debt and liabilities accrued by the business. This indicates that the obligations of the business can be paid through the seizure and sale of personal assets of the owners.

**Professional Body:** Involves organizations whose members are individual professionals. This usually depends on whether or not the profession requires the professional to have a 'license to practice', or to be on a professional register. Example of professional bodies is Ghana Bar Associations. This organisation consists of individual members practicing a profession or occupation in which the organisation maintains an oversight of the knowledge, skills, conduct and practice of that profession or occupation.

**Government Institutions:** These institutions are fully funded and controlled by the government.

**Non-Government Organization (NGO):** This is non-profit making organization which aims at providing services / facilities / assistance to the government and communities.

**Cooperative:** It is an activity operated by the people that it serves and is registered with the cooperative association.

**Association or Groups:** Groups of individuals who voluntarily enter into an agreement to accomplish a purpose. Examples: alumina association, professional association, trade association, sports association, etc.

**External Company:** it is a branch of an existing Company usually registered by local manager on behalf of the company registered outside the jurisdiction of Ghana, who wants to own a branch or place of business in Ghana. Note, that the local Manager must at all times be resident in Ghana.

**Subsidiary Business:** A subsidiary business is a company that belongs to another company, usually referred to as the holding company or the parent company. The parent company holds a controlling interest in the subsidiary company. Thus, the holding company controls more than half of its stock.

In C18, enumerators are to enquire and record how the establishment is legally registered. If the establishment is not registered as any of the legal forms listed, the interviewer must probe for the right legal form of the business. This is may be the case for establishments that are not trading under any business name. This situation may likely arise for establishments operating as sole Proprietorships, Partnerships and Associations/Groups.

### **C19: OWNER'S NATIONALITY**

This section collects information on nationality of the owner(s). It is particularly relevant to privately owned establishments.

**Ghanaian:** This category includes owners of establishments who are Ghanaians by birth or by naturalization.

**Non-Ghanaians:** This category includes owners of establishment who are foreign nationals.

**Ghanaian and Non-Ghanaian:** This refers to joint ownership of establishments by a Ghanaian(s) and Non- Ghanaian(s).

**C20: How many people own this Establishment?** This question wants to solicit information on the number of persons owning the establishment. Put the total in the boxes provided and disaggregate into male and female.

1. TOTAL  2.MALE  3.FEMALE

**Note:** Ownership questions (C19 and C20) are particularly relevant to privately owned establishments. Thus, State-Owned businesses, are not required to complete these questions. For Public-Private Partnerships, ownership details (C19 and C20) should be provided only for private owners.

## SECTION D:

### ECONOMIC ACTIVITIES OF ESTABLISHMENTS

Establishments produce goods or services either for profit or not for profit, which is termed as economic activities. An establishment may engage in multiple economic activities. IBES focuses on only two economic activities for an establishment, which is termed as principal and secondary economic activities.

The kind of goods produced, or services rendered by these establishments is the sole criteria for classifying businesses into economic sectors. The three main economic sectors are:

- Agriculture
- Industry
- Service

An economic activity can belong to only one of the classifications. That is, at the class level for instance an activity cannot be assigned to more than one class. Predetermined international codes have been developed for all economic activities. To arrive at these codes, enumerators will have to describe with precision and clarity the economic activities of the establishment. This section will seek information on the principal activity of the establishments.

#### SECTION A – Agriculture, Forestry and Fishing

This is exploitation of botanical and animal natural resources, comprising the activities of growing crops, raising and breeding of animals, harvesting of timber and other plants, animals or animal products from a farm or their natural habitats.

**a. Crops, livestock and Poultry:** This is the production of crop products and production of animal products, covering also the forms of organic agriculture, the growing of genetically modified crops and the raising of genetically modified animals.

#### Examples

growing of grain maize	growing of cabbages
growing of soya beans	growing of lettuce
growing of groundnuts	growing of cotton
growing of coconuts	growing of nutmeg
growing of palm nut	growing of rubber trees
growing of cocoa	raising and breeding of cattle
keeping of bees	raising and breeding of goats or sheep
raising and breeding of grasscutters	raising and breeding of chicken/guinea fowl
crop spraying	weeding activities



**b. Forestry and Logging:** This is the production of roundwood for the forest-based manufacturing industries as well as the extraction and gathering of wild growing non-wood forest products. Besides the production of timber, forestry activities result in products that undergo little processing, such as fire wood, charcoal, wood chips and roundwood used in an unprocessed form.

Examples

growing of teak	production of logs and chips
replanting of forest	conservation of forests
conservation of timber	gathering and production of fire wood
production of utility poles	production of charcoal in the forest
forestry inventories	forest pest control

**C. Capture fishery and aquaculture:** covering the use of fishery resources from marine, brackish, or freshwater environments, with the goal of capturing or gathering fish, crustaceans, and other marine organisms and products.

Examples

fishing on a commercial basis in oceans and coastal waters	production of fingerlings
gathering of natural pearls	culture of tilapia
fishing on a commercial basis in lagoons/lakes/rivers	operation of fish hatcheries (freshwater)

## SECTION B: Mining and Quarrying

- **Extraction of crude petroleum and natural gas**

This includes the production of crude petroleum, the mining and extraction of oil from oil shale and oil sands and the production of natural gas and recovery of hydrocarbon liquids. This includes the overall activities of operating and/or developing oil and gas field properties, including such activities as drilling, completing and equipping wells, operating separators, emulsion breakers, desilting equipment and field gathering lines for crude petroleum and all other activities in the preparation of oil and gas up to the point of shipment from the producing property.

This excludes support activities for petroleum and gas extraction, such as oil and gas field services, performed on a fee or contract basis, oil and gas well exploration and test drilling and boring activities. Also excludes refining of petroleum products, survey activities, and geologic and seismic.

**Examples:**

1. Extraction of crude petroleum oils	3 Draining and separation of liquid hydrocarbon fractions
2. Processes to obtain crude oils	4. Production of crude gaseous hydrocarbon (natural gas)

- **Mining of metal ores**

This division includes mining for metallic minerals (ores), performed through underground or open-cast extraction, seabed mining etc. Also included are ore dressings and beneficiating operations, such as crushing, grinding, washing, drying, sintering, calcining or leaching ore, gravity separation or flotation operations. Excluded under this classification are manufacturing activities such as the roasting of iron pyrites, the production of aluminium oxide and the operation of blast furnace.

**Examples**

1. Gold mining	3. Mining of bauxite
2. Diamond mining	4. Mining of manganese

- **Extraction of salt**

This class includes extraction of salt from underground including by dissolving and pumps salt production by evaporation of sea water or other saline water, crushing, purification and refining of salt by the producer. This class excludes processing of salt into food-grade salt, e.g., iodized salt, potable water production by evaporation of saline water.

**Example:**

1. Crushing, purification and refining of salt by the producer

- **Mining support service activities**

This division includes specialized support services incidental to mining provided on a fee or contract basis. It includes exploration services through traditional prospecting methods such as taking core samples and making geological observations as well as drilling, test-drilling or re-drilling for oil wells, metallic and non-metallic minerals. Other typical services cover building oil and gas well foundations, cementing oil and gas well casings, cleaning, bailing and swabbing oil and gas wells, draining and pumping mines, overburden removal services at mines, etc.

**Examples:**

1. Test drilling in connection with petroleum or gas extraction	3. Liquefaction and regasification of natural gas for purpose of transport done at the mine site.
2. Draining and pumping services on a fee or contract basis	

## SECTION C: Manufacturing

This includes the physical or chemical transformation of materials, substances, or components into new products. The materials, substances, or components transformed are raw materials that are products of agriculture, forestry, fishing, mining or quarrying as well as products of other manufacturing activities. Substantial alteration, renovation or reconstruction of goods is generally considered to be manufacturing. However, units that transform materials or substances into new products by hand or in the worker's home and those engaged in selling to the general public of products made on the same premises from which they are sold, such as bakeries and custom tailors, are also included in this section.

For example, the output of alumina refining is the input used in the primary production of aluminium; primary aluminium is the input to aluminium wire drawing; and aluminium wire is the input for the manufacture of fabricated wire products.

Assembly of the component parts of manufactured products is considered manufacturing. This includes the assembly of manufactured products from either self-produced or purchased components. The manufacture of new final products (as opposed to secondary raw materials) is classified in manufacturing, even if these processes use waste as an input. For example, the production of silver from film waste is considered to be a manufacturing process.

**Note: Manufacture of ready-made (i.e., prepared, seasoned and cooked) meals and dishes are processed to preserve them, such as in frozen or canned form, and are usually packaged and labelled for re-sale, i.e. this class does not include the preparation of meals for immediate consumption, such as in restaurants, chop bars, canteens, event catering etc.**

### Examples:

1. Manufacture of groundnut oil	7. Manufacture of flour mixes and prepared blended flour
2. Manufacture of fruit juices (orange, guava, pineapple, lemon squash, canning, bottling of fruit juice)	8. Manufacture of plastic pipes
3. Preparation and preservation of fish	9. Manufacture of distilled, potable Akpeteshie
4. Killing, dressing of poultry	10. Kente weaving
5. Manufacture of yoghurt	10. Kente weaving
6. Manufacture of fresh liquid milk, pasteurized, sterilized, homogenized, heat treated	11. Bleaching of jeans

- **SECTION D: Electricity, gas, steam and air conditioning supply**

This section includes the activity of providing electric power, natural gas, steam, hot water and the like through a permanent infrastructure (network) of lines, mains and pipes. Also included are the distribution of electricity, gas, steam, hot water and the like in industrial parks or residential buildings. This section therefore includes the operation of electric and gas utilities, which generate, control

and distribute electric power or gas. Also included is the provision of steam and air-conditioning supply. This class includes the manufacture of gas and the distribution of natural or synthetic gas to the consumer through a system of mains. Gas marketers or brokers, which arrange the sale of natural gas over distribution systems operated by others, are included (activities of Ghana Gas Company). However it excludes operation of gas pipelines, done over long distances, connecting producers with distributors of gas.

### Examples

Generation of electricity from thermal (gas, Petroleum, coal etc)	Transportation and distribution gas through mains
Generation of electricity from Solar	manufacture of gaseous fuels from gases of various types including natural gas
Generation of electricity from wind	production and distribution of cooled air
Generation of electricity from Hydro	production of ice, including ice blocks for food and non-food (e.g. cooling) purposes
Generation of electricity from Biomass	production and distribution of chilled water for cooling purposes
Distribution of electric power received from the generation facility	Transmission of electric power

- **SECTION E: Water supply, Sewage, Waste Management and Remediation Activities**

This class includes water collection, treatment and distribution activities for domestic and industrial needs. Collection of water from various sources, as well as distribution by various means is included. It also includes This division includes the operation of sewer systems or sewage treatment facilities that collect, treat, and dispose of sewage,

The operation of irrigation canals is also included; however, the provision of irrigation services through sprinklers, and similar agricultural support services, is not included.

### Section F: Construction

This section includes general construction and specialized construction activities for buildings and civil engineering works. It includes new work, repair, additions and alterations, the erection of prefabricated buildings or structures on the site and also construction of a temporary nature.

General construction is the construction of entire dwellings, office buildings, stores and other public and utility buildings, farm buildings etc., or the construction of civil engineering works such as motorways, streets, bridges, tunnels, railways, airfields, harbours and other water projects, irrigation systems, sewerage systems, industrial facilities, pipelines and electric lines, sports facilities as construction. Also included is renting of construction equipment with operator which must be classified with the specific construction activity carried out with this equipment and operator. If these activities are carried out not for later sale of the construction projects, but for their operation (e.g. renting of space in these buildings, manufacturing activities in these plants), the unit would not be classified here, but according to its operational activity, i.e. real estate, manufacturing etc.

**Examples:**

1. Construction of all types of residential buildings	7. Building site drainage
2. Construction of hospitals	8. Geophysical activities
3. Construction of parking garages	9. Site preparation for mining
4. Construction of bridges	10. Installation of heating and air-conditioning systems
5. Construction of roads	11.. Installation of lightning conductors
6. Construction of civil engineering constructions	12. Installation of door and window frames

- **Section G: Wholesale and Retail Trade**

**Wholesale trade,**

This division includes wholesale trade on own account or on a fee or contract basis (commission trade) related to domestic wholesale trade as well as international wholesale trade (import/export). Wholesale is the resale (sale without transformation) of new and used goods to retailers, business-to-business trade, such as to industrial, commercial, institutional, or professional users, or resale to other wholesalers, or involves acting as an agent or broker in buying goods for, or selling goods to, such persons or companies. The principal types of businesses included are merchant wholesalers, i.e., wholesalers who take title to the goods they sell, such as wholesale merchants or jobbers, industrial distributors, exporters, importers, and cooperative buying associations.

**Note: In wholesale, a distinction should be made between trading in specialised and non-specialised goods.**

Specialised Goods: This is dealing in one type of goods e.g., textile clothing and footwear; electronic and telecommunication equipment and parts.

Non-specialised goods: This is dealing in a variety of goods without any specialisation.

**Examples:**

wholesale of computer-controlled machinery for the textile industry and of computer	wholesale of gold and other precious metals
wholesale of controlled sewing and knitting machines	wholesale of ferrous and non-ferrous metal ores
wholesale of machine tools of any type and for any material	wholesale of baths, washbasins, toilets and other sanitary porcelain
wholesale of lorries, trailers and semi-trailers	wholesale of construction materials e.g. sand, gravel
wholesale of new and used vehicles	wholesale of fittings and fixtures
wholesale of fuels, greases, lubricants, oils	wholesale of hardware and locks
wholesale of charcoal, coal, coke, fuel wood, naphtha etc.	wholesale of paint and varnish
wholesale of crude petroleum, crude oil, diesel fuel, gasoline, fuel oil, heating oil, kerosene	wholesale of fertilizers and agrochemical products
wholesale of a variety of goods without any particular specialization	wholesale of industrial chemicals
	wholesale of printing ink, essential oils, industrial gases, chemical glues, colouring matter, scents and flavourings, soda, industrial salt, etc.

**Retail trade**

This includes the resale (sale without transformation) of new and used goods mainly to the public for personal or household consumption or utilization, by shops, department stores, stalls, mail-order houses, hawkers and peddlers, consumer cooperatives etc. Retail trade is classified first by type of sale outlet. Retail trade in stores includes the retail sale of used goods. For retail sales in stores, there exists a further distinction between specialized retail sale and non-specialized retail sale. This division also includes units engaged primarily in selling to the public, from displayed goods, products such as personal computers, stationery, paint or timber, although these sales may not be for personal or household use.

**For Retail trade, distinction is required first by type of sale outlet i.e., retail trade in stores and retail trade not in stores. For retail trade in stores, further distinction is required between specialised i.e., range of items sold and non-specialised retail trade.**

**Retail trade not-in-stores is classified by place where goods are sold e.g., retail sale in stalls and markets, door to door, mail order, by vending machines, on the street, in front of houses, etc.**

retail trade of hardware	retail sale of alcoholic beverages
retail trade of beverages or tobacco, several other types of goods	retail sale of beverages (not for consumption on the premises)
retail sale of fresh or preserved fruit and vegetables	retail sale of non-alcoholic beverages.
retail sale of dairy products and eggs	retail sale of flat glass
retail sale of meat and meat products including poultry	retail sale of hardware in specialized stores
retail sale of fish, other seafood and products thereof	retail sale of lawnmowers
activities of commercial art galleries	retail sale of other building material such as bricks, wood, timber pieces
activities of opticians	retail sale of second-hand clothes
retail sale of craftwork	retail sale of other second-hand goods
retail sale of new and used vehicles	retail sale of computers
retail sale of non-customized software, including video games	retail sale of mobile phones and accessories

### • Section H: Transport and Storage

This section includes the provision of passenger or freight transport, whether scheduled or not, by rail, pipeline, road, water or air and associated activities such as terminal and parking facilities, cargo handling, storage etc. Included in this section is the renting of transport equipment with driver or operator. Also included are postal and courier activities.

This section excludes maintenance and repair of motor vehicles and other transportation equipment the construction, maintenance and repair of roads, railroads, harbours, airfields as well as the renting of transport equipment without driver or operator.

#### Examples:

1. Passenger transport by inter-urban railways	6. Operation of excursion, cruise or sightseeing boats
2. Land transport of passengers by streetcar	7. Transport of passengers by air over regular routes and on regular schedules
3. Metro mass transit 4. Transport from town-to-airport	8. Operation of general merchandise warehouses
4. Other renting of private cars with driver	9. Operation of storage and warehouse facilities

	for all kind of goods
5. Passenger road transport: taxi operation	10. Operation of car parks or garages, bicycle parkings

• **Section I: Accommodation and Food Service**

This includes the provision of short-stay accommodation for visitors and other travellers and the provision of complete meals and drinks fit for immediate consumption. . Also included is the provision of longer-term accommodation for students, workers and similar individuals. Some units may provide only accommodation while others provide a combination of accommodation, meals and/or recreational facilities. It excludes the provision of long-term accommodation as primary residences, which is classified in Real estate activities (section M), preparation of food or drinks that are either not fit for immediate consumption or that are sold through independent distribution channels, i.e. through wholesale or retail trade activities classified under Manufacturing (section C).

**Examples:**

1. Short term accommodation activities provided by bed and breakfast units	6. Catering for conferences
2. Short term accommodation activities provided by hotels	7. Activities of bars
3. Short term accommodation activities provided by suite / apartment hotels	8. Activities of beer parlors and pubs
4. Activities of cafeterias	9. Activities of coffee shops
5. Activities of restaurants	10. Private hostels for students
5. Activities of restaurants	11. Accommodation provided by workers hostels



## Section J: Publishing, Broadcasting, and Content Production and Distribution Activities

This division includes the publishing of books, brochures, leaflets, dictionaries, encyclopedias, atlases, maps and charts; publishing of newspapers, journals and periodicals; directory and mailing list and other publishing, as well as software publishing. Publishing includes the acquisition of copyrights to content (information products) and making this content available to the general public by engaging in (or arranging for) the reproduction and distribution of this content in various forms. All the feasible forms of publishing (in print, electronic or audio form, on the Internet, as multimedia products such as CD-ROM reference books etc.),

### Examples:

activities of publishing books in print, electronic (CD, electronic displays etc.) or audio form or on the Internet.	production of motion pictures, videos, television programmes or television commercials
publishing of atlases, maps and charts	activities of motion picture or videotape projection in cinemas, in the open air or in other projection facilities
publishing of audio books	sound recording service activities in a studio or elsewhere,
publishing of books	activities of studio engineers
publishing of dictionaries	activities of studio technicians
publishing can be done in print or electronic form, including on the Internet.	
publishing of newspapers, including advertising newspapers	broadcasting audio signals through radio broadcasting studios and facilities for the transmission of aural programming
publishing of radio and television schedules	activities of radio networks
Publication of Magazines	creation of a complete television channel programme, from purchased programme components (e.g. movies, documentaries etc.)
on-line publishing of statistics or other information	television broadcasting
publishing (including on-line) of advertising material	Provision of news, pictures and features to the media
publishing (including on-line) of catalogs	Information dissemination
publishing of ready-made (non-customized) computer games for all platforms such as FIFA	Sharing brand content on various social platforms
publishing of ready-made (non-customized) business and other applications	promoting brand content on various social platforms

**Section K. Telecommunications, computer programming, consultancy, computing infrastructure, and other information service activities**

This division includes the activities of providing telecommunications and related service activities, i.e. transmitting voice, data, text, sound and video. The transmission facilities that carry out these activities may be based on a single technology or a combination of technologies. The commonality of activities classified in this division is the transmission of content, without being involved in its creation.

providing wireless telecommunications services using this capacity to businesses and households	development video game such as FIFA, call of duty
provision of Internet access by the operator of the wireless infrastructure	
provision of Internet access by the operator of the satellite infrastructure	customizing of software, i.e. modifying and configuring an existing application so that it is functional within the clients' information system environment
operating, maintaining or providing access to facilities for the transmission of voice, data, text, sound, and video.	designing the structure and content of, and/or writing the computer code necessary
	to create and implement databases
provision of telephone and Internet access in facilities open to the public eg. communication centre services, internet cafe services.	
provision of Internet access over networks between the client and the ISP such as dial-up Internet access etc.	planning and designing of computer systems that integrate computer hardware, software and communication technologies
installation (setting-up) of personal computers	provision of on-site management and operation of clients' computer systems
software installation	
application service provisioning	operation of other websites that act as portals to the Internet, such as media sites providing periodically updated content such as google, yahoo etc.
data processing activities	information search services on a contract or fee basis
provision of data entry services	
provision of infrastructure for hosting, data processing services and related activities	

**Section L: Financial and Insurance Activities**

This includes financial service activities, including insurance, reinsurance and pension funding activities and activities to support financial services. This also includes the activities of holding assets, such as activities of holding companies and the activities of trusts, funds and similar financial entities.

**Examples:**

1. Banks e.g. commercial bank, Central bank	7. Life insurance policies
2. Credit unions	8. Provision of insurance services other than life insurance
3. Money order activities	9. Funding of pension funds and plans
4. Activities of holding companies, i.e. units that hold the assets (owning controlling-levels of equity) of a group of subsidiary corporations and whose principal activity owns the group.	10. Activities of forex bureau etc
5. International trade financing NGO	11. Securities brokerage activities
6. Money lending outside the banking system e.g. micro finance	12. Management of mutual funds

- **Section M: Real Estate Activities**

This includes acting as lessors, agents and/or brokers in one or more of the following: selling or buying real estate, renting real estate, providing other real estate services such as appraising real estate or acting as real estate escrow agents. Activities in this section may be carried out on own or leased property and may be done on a fee or contract basis. Also included is the building of structures, combined with maintaining ownership or leasing of such structures.

**Examples:**

1. Buying, selling, renting and operating of self-owned or leased apartment buildings and dwellings	4. Activities of real estate agents and brokers
2. Provision of homes and furnished or unfurnished flats or apartments for more permanent use, typically on a monthly or annual basis	5. Buying, selling, renting and operating of self-owned or leased land
3. Intermediation in buying, selling and renting of real estate on a fee or contract basis	6. Development of building projects for own operation, i.e. for renting of space in these buildings.

- **Section N: Professional, scientific and technical activities**

This includes legal activities such as advice and representation in connection with labour disputes, advice and representation in criminal cases, legal representation of one party's interest against another party, whether or not before courts or other judicial bodies by, or under supervision of, persons who are members of the bar etc. Also, accounting, bookkeeping and auditing activities; tax and management consultancy such as preparation of personal and business income tax returns, preparation or auditing of financial accounts, advisory activities and representation on behalf of clients before tax authorities, provision of

advice and help to businesses and public services in planning, organization, efficiency and control, management information, provision of advice on human resource policies and public relations and communication etc.

### **Architectural and Engineering activities: Technical testing and Analysis.**

Architectural and engineering activities and related technical consultancy for example engaging in engineering design of machines, materials, instruments, structures, processes and systems activities, engaging in cartographic and spatial information activities, provision of building design and drafting services, consulting activities for machinery, industrial processes and industrial plant etc.

Technical testing and analysis such as certification of products, including consumer goods, motor vehicles, aircraft, pressurized containers, nuclear plants, testing activities in the field of food hygiene, including veterinary testing and control in relation to food production etc

### **Scientific Research and Development**

Research and experimental development on natural sciences, engineering, social science and humanities for example research and development on engineering and technology, research and development on medical sciences, research and development on biotechnology, research and development on agricultural sciences, research and development on social sciences, research and development on humanities etc.

### **Advertising and market research**

This includes the provision of a full range of advertising services (either through in-house capability or sub contract) including advise, creating and production of advertising and placing of outdoor advertising, e.g. billboards, panels, bulletins and frames, window dressing, showroom design, car and bus carding, creating and placing advertising in newspapers, periodicals, radio, television, the internet and other media, media representation, i.e. sale of time and space for various media soliciting advertising etc.

### **Other professional scientific and technical activities**

Other professional, scientific and technical activities for example activities of graphic designers, activities of interior decorators, fashion design related to furniture and other interior decoration, film developing and photo printing laboratories, commercial and consumer photograph production, security consulting activities, patent brokerage activities (arranging for the purchase and sale of patents) etc.

### **Veterinary activities**

Veterinary activities includes the provision of animal health care and control activities for farm animals or pet animals carried out by qualified veterinarians in veterinary hospitals as well as when visiting farms kennels or homes , in own consulting and surgery rooms or elsewhere. It also include ambulance activities related to these activities health care and control activities for pet animals etc.

### **• Section O: Administrative and support service activities**

This includes the renting and leasing of tangible and non-financial intangible assets, including a wide array of tangible goods, such as automobiles, computers, consumer goods and industrial machinery and

equipment to customers in return for a periodic rental or lease payment. It also includes leasing of intellectual property and similar products, activities of employment placement agencies, travel agency and tour operator activities, Security and investigation activities, cleaning activities, Landscape care and maintenance service activities (parks and gardens), Photocopying, document preparation and other specialized office support activities, activities of call centres.

**Examples:**

1. Renting and operational leasing of passenger cars (without drivers)	7. Renting of tents
2. Renting and operational leasing of utility trailers and recreational vehicles	8. Renting of office accommodation or containers
3. Renting of pleasure boats, canoes, sailboats etc.	9. Activities of on-line employment placement agencies
4. Renting of video tapes, records, CDs, DVDs etc	10. Private security agencies
5. Renting and leasing of furniture	11. Investigation and detective service activities.
6. Renting of musical instruments	

**Section P: Public administration and defence; compulsory social security**

This section includes activities of a governmental nature, normally carried out by the public administration. This includes the enactment and judicial interpretation of laws and their pursuant regulation, as well as the administration of programmes based on them, legislative activities, taxation, national defence, public order and safety, immigration services, foreign affairs and the administration of government programmes. Compulsory social security activities includes: funding and administration of government-provided social security programmes such as sickness, work-accident and unemployment insurance, retirement pension, programmes covering losses of income due to maternity, temporary disablement, widowhood etc.

**Examples:**

1. Administration and operation of taxation schemes	6. Public administration of educational services
2. Administration and operation of statistical services at various levels of government	7. Administration of waste collection and disposal operations
3. Budget implementation and management of public funds and public debt	8. Funding and administration of retirement pensions
4. Central government administration	9. Administration, supervision and operation of combat forces of army, navy and air force.
5. Local government administration	

• **Section Q: Education**

This section includes education at any level or for any profession, oral or written and other means of communication. It includes education by the different institutions in the regular school system at its different levels as well as adult education, literacy programmes etc. Also included are military schools and academies, prison schools etc. at their respective levels. The section includes public as well as

private education. For each level of initial education, the classes include special education for physically or mentally handicapped pupils.

**Examples:**

1. photography schools	1. performing arts schools
2. automobile driving schools	2. Technical and vocational secondary education
3. learning centres offering remedial courses	3. Secondary education
4. computer training,	4. Tertiary (Training colleges, Universities etc)

• **Section R: Human Health and Social Work Activities**

This section includes the provision of health and social work activities. Activities include a wide range of activities, starting from health care provided by trained medical professionals in hospitals and other facilities, over residential care activities that still involve a degree of health care activities to social work activities without any involvement of health care professionals.

**Examples:**

1. Medical, diagnostic and treatment activities	6. Activities of herbal medicine practitioners/centres
2. Medical, diagnostic and treatment activities of maternity hospitals	7. Activities of traditional birth attendants
3. Medical, diagnostic and treatment activities of mental health and substance abuse hospitals	8. Activities of blood analysis laboratories
4. Family planning centres providing medical treatment, such as sterilization and termination of pregnancy, without accommodation	9. Activities of orphanages
5. dental practice activities of a general or specialized nature, e.g. dentistry, endodontic and pediatric dentistry; oral pathology, orthodontic activities	10. Activities of X-ray laboratories and other diagnostic imaging centres

• **Section S: Arts, Sports and Recreation**

This section includes a wide range of activities to meet varied cultural, entertainment and recreational interests of the general public, including live performances, operation of museum sites, gambling, sports and recreation activities. Broadly, it include creative arts and entertainment activities ; libraries, archives, museums and other culture activities; gambling and betting activities; sports activities and amusement and recreation activities.

**Examples:**

1. Operation of concert and theatre halls and other arts facilities	6. Operation of football clubs
2. Production of group circuses or companies,	7. Activities of amusement parks or theme parks

orchestras or bands	
3. Operation of art museums	8. Operation of nature reserves, including wildlife preservation, etc.
4. Operation of botanical and zoological gardens	9. Lotto operators
5. Operation fitness centers/gym	

**• Section T: Other Service Activities**

This section includes the activities of membership organizations, the repair of computers and personal and household goods and a variety of personal service activities not covered elsewhere in the classification.

This section (as a residual category) includes the activities of membership organizations, the repair of computers and personal and household goods and a variety of personal service activities not covered elsewhere in the classification. Also, include Maintenance and repair of motor vehicles.

**Examples:**

activities of medical associations e.g., Ghana Medical Association	Ghana Chamber of mines
activities of accounting associations	Ghana Poultry Association
activities of legal associations e.g., Ghana Bar Association	repair and maintenance of television
repair and maintenance of desktop computers	repair and maintenance of CD players
repair and maintenance of monitors	hair trimming and cutting and similar activities for men and women
repair and maintenance of cellular phones	hair washing and similar activities for men and women
repair and maintenance of commercial TV and video cameras	shaving and beard trimming services
assembling of self-standing furniture	make-up services
re-finishing of furniture and home furnishings	manicure and pedicure services
repairing and restoring of furniture and home furnishings, office furniture	facial massage services
activities of massage salons etc.	maintenance and bodywork repair
activities of sauna and steam baths	maintenance and auto electrical repairs

activities of Turkish baths	maintenance and electronic injection systems repair
repair and servicing of stoves (electric and gas)	tyre and tube repair, fitting or replacement
repair and servicing of garden trimmers	maintenance and repair of motor vehicles
repair and servicing of washing machines	maintenance, washing, polishing, etc.
repair and servicing of refrigerators and freezers	maintenance and repair of motorcycles
repair of bicycles	tyre and tube repair, fitting or replacement of motorcycles
repair of musical instruments	preparing the dead for burial or cremation and embalming and morticians' services
repair of watches, clocks and watchcases and housings of all materials etc.	maintenance of graves
astrological and spiritualists' activities	providing burial or cremation services
dating services	rental of equipped space in funeral parlours
escort services	pet grooming services
pet boarding services	services of porters e.g., 'kayayes'

- **Section U: Activities of households as employers of domestic personnel**

This class includes activities of households as employers of domestic personnel such as maids, cooks, waiters, laundresses, gardeners, gatekeepers, chauffeurs/drivers, caretakers, babysitters, tutors, secretaries etc.

It allows the domestic personnel employed to state the activity of their employer in censuses or studies, even though the employer is an individual. The product produced by this activity is consumed by the employing household. This class excludes: provision of services such as cooking, gardening etc. by independent service providers (Companies or individuals).







D1	P	R	O	D	U	C	T	I	O	N		O	F		S	O	A	P				

D3	P	A	C	K	A	G	I	N	G		O	F		C	O	F	F	E	E				

D5	M	A	N	U	F	A	C	T	U	R	E		O	F		Y	O	G	H	U	R	T

From the table above, assuming the respondent provided the information (either verbally or written) on value of sales then from your computation the 1<sup>st</sup> principal activity would be *Production of Soap* because it has the highest share of sales (58.8%); followed by *Packaging of Coffee* (31.6%), and then *Processing of Meat Product* (6.1%).

**Example 3**

An establishment that is engaged in

- a. Manufacture of roofing tiles
- b. Construction of buildings.

In this case if the establishment does not keep separate books of account, then use the value of output for each activity to determine the principal industrial activity. If separate books of account are available, then treat them as different establishments in manufacturing and construction.

**Poor Principal Activity Description**

An example of poor description is: “Manufacture of Machinery”. There are different types of machinery; our interest however is to capture manufacture of a specific machinery. This is *unacceptable* since it would be difficult to know which of the following classification to use:

- Manufacture of engines and turbines
- Manufacture of agricultural machinery and equipment
- Manufacture of metal and wood working machinery.
- Manufacture of office and accounting machinery
- Manufacture of electrical industrial machinery
- Manufacture of electrical appliances and housewares

All such description as” manufacture of machinery”, “manufacture of appliances”, manufacture of equipment” are inadequate and will not be accepted.

The following are some examples of poor economic activity descriptions. The questionnaires would have

been sent back to the enumerator. Comments on these are in brackets.

- Manufacture of machine parts. (What Machine part?)
- Manufacture of office equipment. (What equipment? Is this office equipment a calculators, Writing pens, pins, paper clips, pencils, air-conditioners, chairs?)
- Fabrication of steel (What sort of fabrication? Is this steel meant for buildings, cars, bridges, durables? It could be meant for hundreds of different things)
- Manufacture of metal products. (There are hundreds of different metal products. Which ones are you referring to?)
- Wood processing. (What type? Is it dressing timber? Is it Furniture Manufacturing?)
- Manufacture of furniture. (What sort of furniture? Is it home furniture or office furniture? Is it made of steel, glass, or wood?)

**Note: If an enumerator encounters a challenge such as the above, he/she should probe for more clarity on the response to question to ascertain the correct activity description.**

### **Rules for Writing Good Principal Activity Description**

(a). The respondent can always give a good description of the establishment's activity. Listen to the respondent carefully. If necessary, get him/her to write it out on a piece of paper if the respondent can read and write.

(b). Nouns such as "machinery", "equipment", "appliance" are to be qualified by at least one and usually two adjectives, e.g.:

Manufacture of agricultural machinery

Manufacture of electrical laboratory equipment

Manufacture of electrical household appliances

Manufacture of wooden household furniture

Drilling of wells

Wiring of houses

Construction of roads

c. When in doubt, write down the establishment's main products

e.g. "Produces canned pineapple juice, canned pineapple chunks, canned orange juice, bottled mineral drinks, bottled syrups".

### **Examples of Services and others**

Typing of documents

Photocopying of document

Faxing of documents

Internet browsing services  
Auditing of Clients Accounts  
Legal advice services

This question seeks to enquire from the respondents if the establishment is providing mobile money service.

**D5. Is this establishment an agency providing mobile money services (Mobile money agent)?**

1. Yes 2. No

This question seeks to enquire from the respondents if the establishment provide other banking services apart from momo.

**D6. Is this establishment an agency providing other banking services apart from momo?**

1. Yes 2. No

## SECTION E

### NUMBER OF PERSONS ENGAGED

This section seeks to collect information on persons engaged by all establishments. Persons engaged may be Ghanaian(s) and non-Ghanaian(s) who are working for the establishment either for monetary, non-monetary or voluntary. These people may either be engaged temporarily or permanently. The information in this section is critical for analyzing employment: by sex, region, economic activity, and sector. Additionally, this information will serve as a basis for selecting samples to conduct economic and other related surveys.

#### PERSONS ENGAGED

These are paid or unpaid workers of an establishment. This includes working proprietors, *unpaid family* workers, permanent workers, casual workers, temporary workers and part-time workers.

- It excludes workers paid by external contractors even though they work in the establishment.
- For example, employees of a contracted security agency

**Working Proprietors:** They include sole proprietors, partners, or shareholders in a limited liability company who actively engage in the business or its management. He may be paid or unpaid.

**Unpaid family worker:** These are people who work without pay in an establishment operated by a related person.

**Permanent worker:** They do not have a predetermined end date to employment and in addition to their wages, they often receive benefits like subsidized health care, paid vacations, holidays, sick time, or contributions.

**Casual worker:** These are hiring employees on an as-needed basis, to meet company's staffing needs during peak business periods.

**Temporary worker:** This is whereby workers are engaged only for a specific period, includes fixed-term, project- or task-based contracts.

**Part-time workers:** These are employed persons whose normal hours of work are fewer than those of comparable full-time workers.

#### NATIONALITY

**For the purpose of this exercise, Ghanaian is defined into three groups.**

**(1) Ghanaian by birth:**

- a. A person born in or outside Ghana, one of whose parents are Ghanaian citizens.
- b. A child of not more than 7 years of age found in Ghana whose parents are not known.

1. **Dual Nationality:** This relates to a citizen of Ghana who holds the citizenship of another country in addition to his/her Ghanaian citizenship.

(2) **Ghanaian by Naturalization:** This is the acquisition of citizenship through an application and approval from Ministry of Interior. This includes the following:

- **Adopted Child:** A child who is legally placed with parent(s) who is/(are) not his/her natural parents.
- **Citizenship by Registration:** A person who acquired citizenship by registration.
- **Naturalization:** A person who acquired Ghanaian citizenship by naturalization.

**Non-Ghanaians:** This relates to all person who do not originate from Ghana. For these persons, they may have citizenship of a different country other than Ghana or have dual citizenship of other countries; none of which is Ghana. This also includes stateless persons.

**Enumerators are supposed to fill in the spaces provided:**

**E0: Total average workers for the year 2022**

Enumerators enquire from the respondent's the number of persons engaged by the establishment in each quarter and sum the total number of persons engaged for each quarter and divide by the number of quarters.

First Quarter: 173 persons

Second Quarter: 218 persons

Third Quarter: 251 persons

Fourth Quarter: 246 persons

Total personnel engaged in the year =  $173 + 218 + 251 + 246 = 888$  persons

Average persons engaged in the year = Total personnel engaged / Number of quarters

Average persons engaged =  $888 / 4 = 222$  persons

**E1: How many managers are currently engaged in this establishment?**

The enumerator should enquire from the respondent the number of managers that are currently engaged in the activities of the establishment.

<b>Total</b>	<b>Male</b>	<b>Female</b>
<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

**E2: How many persons are currently engaged in this establishment? (All Workers)**

The enumerator should enquire from the respondent the number of persons currently engaged in the activities of the establishment.

	TOTAL	MALE	FEMALE
<b>E1: Persons engaged.</b>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
<b>E2: Paid</b>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
<b>E3: Unpaid</b>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
<hr style="border-top: 1px dashed black;"/>			
<b>E2.4: non-Ghanaian</b>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

**Enumerator should note the following:**

1. The total number of male and female should be equal to the total number of persons engaged.
2. The total number of paid male and paid female workers should be equal to the total number of paid workers.
3. The total number of unpaid male and unpaid female workers should be equal to the total number of unpaid workers.
4. The total number of paid and unpaid workers should be equal to the total persons engaged.
5. The total non-Ghanaian male and non-Ghanaian female should be equal to the total number of non-Ghanaians.
6. The total number of paid and unpaid females must not be larger than the total number of female workers.
7. The total number of paid and unpaid males must not be larger than the total number of male workers.

**E3: What number of paid workers have direct contract agreement with the establishment?**

The enumerator should enquire from the respondent the number of paid workers have direct contract with the establishment.

**E4: What number of paid workers have pension schemes?**

The enumerator should enquire from the respondent the number of paid workers have direct contract with the establishment.



## SECTION F

### RECORD KEEPING AND EXTERNAL TRADE

#### RECORD KEEPING

Record keeping of an establishment is critical for two main reasons. This information will help classify establishments into formal and informal and determine where enumerators will go for the detailed record keeping information of the establishment at the second phase of IBES.

#### Key Concepts and Definitions

- **Financial Records-** It is the documentation of the monetary flows, status, and projections relating to the business transactions of the establishment. The documentation includes the filing and generating of invoices, receipts, ledger accounts, trial balance and financial statements.
- **Non-financial Records-** It is the documentation of activities relating to the technical operations and services (human resource and administration) of the establishment without the monetary implications.
- **Formal Records-** An establishment keeps formal records if it:
  - follows professional procedures in managing its records.
  - has records that can be traced.
  - keeps routine records either electronically or manually.
- **Informal Records-** An establishment keeps informal records if it:
  - does not follow professional procedures in keeping records.
  - the documentation is done haphazardly.
  - the documentation is not done routinely.
  - does not have procedures for filing and retrieving records.
- **No Records:** In this case, the establishment does not keep any form of record. It includes businesses who keep records in the minds of the managers or owners.
- **Digitized:** This is the adaptation of a system or process to be operated with the use of computers and the internet.
- **Non-Digitized:** This is the use of a system, or a process not related to or using computers, the internet, or any other form of digital technology.

#### **F1: In what year did the establishment commence operations?**

The enumerator should ask for the year in which the establishment commenced operations?

--	--	--	--

It is important that the enumerator probes further in cases where the establishment is an inheritance or a gift, and the respondent is unaware of the year of commencement of operation of the establishment. In cases where the respondent cannot remember, ask them of events that happened around the year the establishment commenced operations. See calendar of historical events in Appendix 3.

#### **F2a: Does the establishment keep records?**

The enumerator should ask if the establishment keeps any form of records. An establishment formally keeps records if it follows professional procedures in managing its records, if it has records that are traceable, and if it keeps routine records either electronically or manually. However, if the establishment does not follow any professional procedures in keeping records, if documentation is done haphazardly, if documentation is not done routinely then it is keeping informal records. The enumerator should also identify and record any establishment(s) that do not keep records. The enumerator should write the code that corresponds to the response in the box provided.

1. **Yes, Formal**      2. **Yes, Informal**      3. **No (Skip to F4)**

**NOTE: If response is “3. No”, Then Skip to F4.**

**F2b: What type of records are kept by this establishment?**

The enumerator should ask the respondent the type of records that are kept by the establishment. That is, the enumerator should ask if the respondent keeps financial or non-financial records. The enumerator should write the code that corresponds to the response in the box provided.

1. **Financial Records**  
2. **Non-Financial Records**   
3. **Both Financial and Non-Financial Records**

**F3: How are the records kept?**

The enumerator should ask the respondent how the records of the establishment are kept? This is to find out whether the establishment keeps records in a digitized form or a non-digitized form (hard copy). The enumerator should write the code that corresponds to the response in the box provided.

1. **digitized**  
2. **non-digitized (hard copy)**   
3. **Both digitized and non-digitized**

**F4: Is this establishment operating for Profit or Not for Profit?**

The enumerator should ask the respondent whether the establishment operates for profit or not for profit. The enumerator should write the code that corresponds to the response in the box provided.

1. **Profit**      2. **Not for Profit**

**F5: In a typical year within the last 5 years, what is the share of the establishment’s inputs that were directly imported?**

The enumerator should ask the respondent the share of the establishment inputs that were directly imported in a typical year within the last 5 years? The enumerator should emphasize **DIRECTLY**. This does not include any imported good(s) that were not directly imported by the establishment. The enumerator should write the code that corresponds to the response in the box provided.

1. None (0%)  
2. Between 1- 25%  
3. Between 26-50%

4. Between 51-75%
5. Between 76-100%

**F6: In a typical year within the last 5years, what is the share of the establishment's output that was directly exported?**

The enumerator should ask the respondent the share of the establishment output that was directly exported in a typical year within the last 5years? The enumerator should emphasize ***DIRECTLY***. This does not include any exported good(s) that were not directly exported by the establishment. The enumerator should write the code that corresponds to the response in the box provided.

1. None (0%)
2. Between 1- 25%
3. Between 26-50%
4. Between 51-75%
5. Between 76-100%

## SECTION G

### IDENTIFICATION OF GREEN ESTABLISHMENTS

This section seeks to find out establishments that are into production of environmental outputs (goods and services for sale) and environmental processes used within the establishment in the year 2022. This section will help identify the Green Establishments in Ghana.

#### Key Concepts and Definitions

- **Green Establishment:** It is an establishment that consciously deploys its operations in a manner that has minimal adverse effect on the environment.
- **Organic Fertilizer:** This is a fertilizer that is naturally produced. This includes compost, liquid plant manures, animal waste and bi-products.
- **Inorganic Fertilizer:** It is a fertilizer that is processed and prepared artificially in a controlled environment. This contains minerals and synthetic chemicals. E.g., Nitrogen, Phosphorus and Potassium (NPK) fertilizer.
- **Cleaner Technologies:** These are services, products, and processes that have relatively minimal adverse effects on the environment. E.g., use of improved cookstoves, solar heating devices, energy efficient refrigerators.
- **Ecotourism:** It is the travel to natural areas that conserve the environment.
- **Biomass:** This is the renewable organic material that comes from plants and animals which can be used to generate energy. It is a technology where human excreta is collected into a chamber and used as a source of energy.
- **Pollutants:** These are harmful materials that adversely affect the environment. Pollutants can be natural, such as volcanic ash. They can also be created by human activity, such as trash or runoff produced by factories.
- **Waste:** These are unwanted and unusable materials that have been discarded after primary use, or are worthless, defective and of no use.
- **Pesticides:** These are substances used for destroying insects or other organisms harmful to cultivated plants or to animals.
- **Antibiotics:** These are medicines that fight infections caused by bacteria in humans and animals by either killing the bacteria or making it difficult for the bacteria to grow and multiply.

**Last year (2022), did your establishment use, produce or practice any of the following to reduce pressures on the environment?**

*Please select the appropriate response (1. Yes, Produce; 2. Yes, Use; 3. Yes, Produce and Use; 4. No) for the questions below:*

**G1: Generate electricity, heat or fuel from renewable sources (wind, solar, biomass, etc.)**

Enumerators should ask if the establishment produce environmental goods and services or use (use within the establishment, not for sale) any goods and services or technologies that generate electricity,

heat or fuel from renewable sources (wind, solar, biomass, etc.). Environmental goods and services are those goods and services whose main purpose is environmental protection and/or resource management. They include research and development, installation and maintenance services. Examples include manufacturing of wind turbine equipment, solar heating equipment, photovoltaic energy equipment, biomass-fired industrial boilers, energy efficient manufacturing equipment, electrical appliances, buildings and vehicles; energy efficient lighting, including their maintenance and servicing) and improve the energy efficiency of buildings and the efficiency of energy storage and distribution (such as Smart Grid technologies).

**G2: Prevent, reduce and eliminate pollutants and waste?**

Enumerators should find out if the establishment produce technologies (goods) or provide services for SALE or use technologies that prevent, reduce or eliminate pollution and air emissions such as elimination of creation of pollutants or toxic components; removal pollutants and hazardous waste from environment; eliminate the creation of waste materials (e.g., water and sewage treatment plants, equipment for treatment of industrial waste water and sewage, waste-to-energy facilities) and elimination of pollution by using manufacture of waste gas absorbers, waste gas flare/incinerator, catalytic converters, pollutant recovery condensers, filters, absorbers, more-efficient wood-burning stoves, manufacturing of rechargeable batteries, etc.

Also, if the establishment uses technologies or practices to reduce or eliminate the creation or release of pollutants or toxic components as a result of your operations or to remove pollutants and hazardous waste from environment (e.g., carbon dioxide, methane, carbon monoxide, nitrogen oxides, herbicides and pesticides, heavy metals, radioactive contamination, etc.).

**G3: Conserve and preserve the environment by planting trees, recycling, ecotourism or by implementing other cleaner technologies or processes?**

Enumerators should find out if the establishment produce technologies (goods) or provide services for SALE or use technologies which protect the environment and conserve natural resources such as protection of air, soil, ground and surface water, aquatic resources, timber resources, water resources, mineral resources, biodiversity and wildlife (includes growing and planting trees for reforestation; ecotourism, etc.), remediation of soil, land management, monitor and control the quality of air, water, soil and research and development on environmental protection. Also if the establishment uses technologies or practices to reduce the withdrawals of natural resources, or eliminate the creation of waste material as a result of their operations (e.g., collecting and reusing or recycling of glass, metals, paper, rubber, textiles) and waste water; composting solid waste, remanufacturing of waste material, etc.), operations to protect and conserve natural resources i.e. protection and remediation of soil, groundwater and surface water; reduction of water or other resource consumption (including by using storm water); protection of biodiversity and landscapes; protection and remediation of timber resources (includes sustainable forestry practices); protection and remediation of aquatic resources; etc.

**G4: Adopt sustainable practices for example using fertilizers in agriculture, and ensuring effective use of natural resources**

Enumerators should find out if the establishment produces agricultural products (crops, vegetables, fruits, meat, dairy products, cotton, and wool) without or with very limited use of chemical fertilizers and pesticides, plant growth regulators such as hormones, antibiotic use in livestock, genetically modified organisms, artificial insemination, etc. Also, if the establishment produces agricultural

products using explicit climate smart or organic agricultural practices which require natural and organic inputs and/or well-defined techniques such as no tilling etc.

## SECTION H

### DIGITAL FINANCE

This section seeks to collect information on payment systems by the establishments. Digital finance is the delivery of traditional financial services digitally, through devices such as computers, tablets and smartphones. Digital finance has the potential to make financial services accessible to underserved populations in areas that lacked physical infrastructure for these services.

**Please select the correct response for the questions below:**

**H1: For business transactions, which payment systems does this establishment use or accept? (Multiple Responses Allowed)**

**A. Cash:** This is money in the physical form of currency, such as banknotes and coins. An example is shown below:



**B. Cheque:** This is a document issued to the bank, directing it to pay a specified amount mentioned in digits as well as words to the bearer of the cheque. Example is shown below:



**C. Bank transactions:** This is a record of money that has moved in and out of an establishment's bank account.



**D. Digital finance:** This is the delivery of traditional financial services digitally, through devices such as computers, tablets and smartphones. Examples include personal mobile money, merchant payments/MoMopay, QR code, POS device, zepay, e-zwich, etc.)







E. Other (Specify) .....

**H2a. Which way does this establishment use or accept digital finance? (Multiple responds allowed)**

- The enumerator should ask the establishment which way they use or accept digital finance. The enumerator should select all responses that are applicable.
- **NOTE: B2E - Business-to-Employees; B2G – Business-to-Government; B2B- Business-to-Business; C2B- Customer-to-Business; B2B – Business-to-Business; G2B- Government-to-Business**

- A. Pay employees (B2E)
- B. Pay bills (electricity, water, taxes, etc.) (B2G)
- C. Pay input suppliers (B2B)
- D. Accept as payments for output to customers/buyers (C2B)
- E. Accept loans (B2B)
- F. Accept payments from government (G2B)
- G. Other (specify).....

**H2b. Which specific digital finance technologies does this establishment use or accept? (Multiple responds allowed)**

The enumerator should ask the respondents the type of digital finance technology that the establishment uses or accepts for business transactions. This question allows for multiple responses. In other words, the enumerator should select all possible options that apply to the specific establishment. It must also be noted that if the establishment uses any other form of digital finance technology that has not been captured, it should be stated under option H (Other (specify)).

- A. Personal mobile money (any)
- B. MoMopay / VodafonePay / AirtelTigoPay
- C. QR code payment systems (QR Code, GhQR, etc.)
- D. POS device
- E. Payment aggregators or platforms (fintechs+ eg., zeepay, GhanaPay, etc.)
- F. Card payments (e.g., debit card, credit card, visa card, e-zwich, etc)
- G. Internet / Mobile Banking
- H. Other (Specify).....



**H2c: Why the establishment adopted or used digital finance? (Multiple Response Allowed)**

**The enumerator should ask, why the establishment adopted or uses digital finance (perceived benefits)?**

The enumerator should ask the respondent why the establishment has adopted digital finance technologies for its business transactions. The enumerator should select all possible responses. In case the respondent gives a response which is not captured, the enumerator should specify the response under option G.

- A. Don't have to travel to pay or receive payments.
- B. Reduce theft of business money
- C. We can reach out and deliver to a larger market both near (cash + non-cash customers) and far (e-commerce)
- D. Easy to get input supplies or provide business output on credit (inter-business trade credit)
- E. It builds a credit history for future credit acquisitions.
- F. It is better liquidity or money management.
- G. Other (Specify).....

**Credit history is a record of how a person handles money and debt, including credit card accounts and other loans.**

Skip H3 if Option

**H3. Why did the establishment not adopt and/or not use digital finance? (Multiple responses allowed)**

The enumerator should ask the respondent why the establishment has not adopted digital finance technologies for its business transactions. The enumerator should select all possible responses. In case the respondent gives a response which is not captured, the enumerator should specify the response under option G.

**The enumerator should ask why the establishment did not adopt and/or not use digital finance (perceived costs)? (Multiple responses allowed)**

- A. Lack of knowledge about how it works
- B. Uncertainty about returns or benefits of using digital finance
- C. Perceived future taxation of business because more formalized with digital finance
- D. My business stakeholders (suppliers/customers/competitors etc) have not adopted digital finance yet
- E. Concerns about fraud on digital finance technologies
- F. Perceived higher cost/charges on digital finance transactions
- G. Too expensive / costly to acquire digital finance technology (e.g., new POS machine, new service phone, etc.)
- H. Don't trust DF services
- I. Other (Specify).....

## SECTION I

### REVENUE/TURNOVER

One of the main objectives of businesses is to maximise revenue. Keeping records of revenue enables businesses to measure their growth. The information on revenue will serve as the basis for classifying businesses by size. The size categorisation will facilitate sampling during the conduct of economic and other related surveys.

**Revenue** is the total amount of money received from carrying out business operations such as sales. This includes both **operating** and **non-operating** revenue.

**Operating revenue** is the revenue that a company generates from its primary business activities.

**Non-operating revenue** is the portion of a company's income that is derived from activities not related to its core business operations. Non-operating revenues cannot be predicted very often and they are non-recurring in nature. Examples of non-operating revenue are money from sale of an asset, and money received from investments. If a retail store invests 10,000 Ghana cedis in the stock market, and in a one-month period earns 5% in capital gains, the 500 Ghana cedis (10,000 x 0.05) would be considered non-operating income.

Also, if an establishment deals with manufacture and sale of automobiles, then the revenue generated from the sales of automobiles is its operating revenue. However, if the same establishment rents a part of its building to another company or individual then the income generated from that rent is its non-operating revenue.

With respect to government institutions, the money they receive from fines, taxation, sale of securities, rights on minerals and resources, fees, and sales is their revenue. In the case of non-profit organisations, their gross receipts are their source of revenue. The components of their revenue are donations, from various sources, investments, activities related to fundraising, and membership fees. Also, a private university may classify tuition received as operating revenue, whereas gifts from alumni are considered non-operating revenue.

**I1a. Indicate the category in which your annual revenue GH¢ belong in 2022 (Provide projected annual turnover if commencement date is after January 2022. Note that this includes those that commenced in 2023).**

- 1 - 10,000   2) 10,001 - 30,000   3) 30,001 - 50,000   4) 50,001 - 100,000   5) 100,001 - 200,000  
6) 200,001 - 500,000   7) 500,001 - 1,000,000   8) 1,000,001 - 5,000,000   9) 5,000,001 - 6,000,000  
10) 6,000,001 - 10,000,000   11) 10,000,001 - 20,000,000   12) 20,000,001 and more

Write the appropriate code corresponding to the revenue range in the box provided. For establishments that keep formal financial records, enumerators should take this information from these records.

For establishments that do not keep formal records, enumerators should help respondent to estimate the annual revenue. This can be estimated on a daily, weekly or monthly basis and aggregated to annual. Be patient with respondents as this information requires memory recall.

Examples of estimating annual revenue:

Where respondent provides daily revenue

Revenue of 100 cedis a day

Obtain the average number of days worked in a week. E.g. 4 days/week

Weekly revenue = 100 cedis X 4 days = 400

Annual revenue = 52 weeks X 400 = 20,800

Where respondent provides weekly revenue

Revenue of 200 cedis per week

Annual revenue = 52 weeks X 200 = 10,400

Where respondent provides monthly revenue

Revenue of 500 cedis per month

Annual revenue = 12 months X 500 = 6,000

### **I1b. How was the projection done?**

Use less than 12 months of financial records      2. Used annual financial records

**Financial records** are documents that provide evidence of or summarize business transactions. It is the documentation of the monetary flows, status, and projections relating to the business transactions of the establishment. The documentation includes the filing and generating of invoices, receipts, ledger accounts. Other examples are general account books, banking records (including bank statements, deposit books etc.) and cash book records.

This question seeks to find out how revenue in question J1a was estimated. Option 1 is selected if revenue is estimated using less than 12 months financial records of 2022. Option 2 is selected if annual records for the whole of 2022 are used. Write the appropriate code in the box provided.

Possible reasons for choosing option 1 include establishments:

- that commenced business after January 2022;
- that commenced business in 2023;
- with incomplete annual records of 2022;
- with no records for 2022.

## SECTION J

### CATEGORISATION OF RESIDENTIAL BUSINESSES

Business activities in residential structures could be treated separately from domestic activities. However, there are situations where residents freely use the business facility or product for domestic purposes. For businesses in residential structures, the 2023 IBES will obtain information on how residents share the establishment space or facility with the business.

**Note** that this part is supposed to be asked to all establishments that indicated in question A0 that the structure is used for both residential and non-residential purposes.

**J1: Are there people freely using the establishment space/product/facility for domestic activities?**

1. Yes   2. No  

Enquire from the respondent if the establishment premises or product is also being used for domestic activities by people without paying or for purposes other than the business activities.

**Establishment space** is the premises (land and buildings) on which the business is conducted or operated. **Domestic activities** are tasks performed by residents in a residential structure to ensure that the basic needs of its members are met. Domestic activities include among others cooking, washing of clothes, cleaning, organising, mowing, taking care of children or taking care of older adults and other dependent family members. Write the appropriate code in the box provided.

**J2: Does the owner / manager / worker reside in this structure?**

1. Yes   2. No  

**A manager** is a person responsible for planning, organising, leading, directing or controlling the resources of the establishment. The key responsibilities of a manager include:

- envision the mission and goals of the establishment which is detrimental for the growth of the business;
- sustain the growth of the establishment by scanning and analysing the internal and external environment that poses threat on the survival of the business;
- improve the efficiency of the firm to ensure that the resources are properly utilised;
- be a good leader and a motivator to inspire and motivate the employees working in the establishment.

**Owner refers** to a person or group of individuals who has the rightful title to the establishment or is the legal proprietor of a business. The owner can be the same person who directs the business and controls its day-to-day activities, or he/she can choose to have a manager for that purpose. The owner has the ultimate control on its business and therefore decides whether to delegate or not certain key executive functions on qualified professionals.

Ask the respondent if the manager/owner/worker lives or stays in the structure. Write the appropriate code in the box provided.

**J3: Does this business exclusively pay for its electricity consumption?**

1. Yes 2. No

Ask the respondent if the establishment pays for its electricity consumption and record the appropriate response in the box provided.

**K4: Does this business exclusively pay for its water consumption?**

1. Yes 2. No

Ask the respondent if the establishment pays for its water consumption and record the appropriate response in the box provided.

**SECTION K:**

This section seeks to collect information on unique identifiers of businesses. The information in this section is critical since it will give each establishment a unique identity. Additionally, this information will help during selecting samples to conduct economic and other related surveys. Also, obtaining unique identifiers of an establishment is essential to establish solid business relationships. Note that consistent with the provisions of the Statistical Service Act, 2019, the data collected will not be shared with any other entity/person.

**J1: Tax Identification Number (TIN)**

--	--	--	--	--	--	--	--	--	--	--

Fill in the space below with the establishment's TIN number. TIN numbers are 11 digits. Eg. P0008509607, C0015670981 and V0200768131. The one starting with P are for individuals, C is for companies and V is for government institution or NGO's.

**J2: Ghana Card of owner / CEO**

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**Fill in the space below with the owner's Ghana Card number.**



## CHAPTER NINE

### MOBILE BUSINESSES

Mobile businesses would be enumerated as part of the expanded scope of IBES 2023. This chapter provides guidelines on administering the various sections of the Mobile Business Questionnaire.

#### Completing the Mobile Business Questionnaire

It is instructive to note that open space businesses everywhere will be enumerated. Mobile space businesses should only be enumerated using the CAPI.

The questionnaire starts with a reference number, which uniquely identifies the mobile business.

	Reg. Code	District Code	District Type	Sub-Metro Code	EZ No.	EA No.	Business No
Reference Number							
Business Location Code:				Location Name:.....			

**The Reference Number** is a 17-digit code made up of identifies such as region, district, district type, sub-metro, EZ number, EA number and business number:

For the region, district, sub-metro, EZ and EA fields, the enumerator must indicate the right codes that pertain to the specific location of the business. This information is pre-loaded on the tablets and will be pre-filled once the desired EA has been chosen and confirmed.

Establishment number: This is a 4-digit serial number assigned to an establishment in an EZ. This number is automatically generated once the business has been enumerated.

#### SECTION A: IDENTIFICATION OF MOBILE BUSINESS

The first identifier that the enumerator required to solicit is the name **(A1)** of the mobile business operator. The enumerator is required to state the name of the mobile business operator.

Further, solicit and indicate on the CAPI the sex **(A1b)**, age **(A1c)** and nationality **(A1d)** of the operator of the mobile business.

For Sex, the options considered are:

1. Male
2. Female

The enumerator should enquire about their sex at birth and record the option that applies.

Next, the enumerator should enquire and record the age of the mobile business operator.

The options considered for the nationality of the owner are:

1. Ghanaian
2. Other African
3. Non African

The enumerator should ask and state the appropriate option that applies. Option 1 if the owner is a Ghanaian; Option 2 if the owner is a nationality of an African country other than Ghana; and Option 3 if the owner is a nationality of any country other than African countries.

Information on Region name (A2), Region Code (A3), District Name (A4) and Code (A5), Sub-Metro Name (A6) and Code (A7), would all be pre-loaded and filled when the field officer selects the right EA. However, the field officer must familiarise him or herself with all the codes associated with this section which have been provided in appendix 1 & 2 of this manual and validate if the right names and codes have been pre-loaded. Field officers are expected to clearly state the name of the locality (A9) they are enumerating in the CAPI. The locality code (A10) should be left by the enumerator as it would be provided by the IBES secretariat.

<b>A1: Name of Hawker</b>	<input type="text"/>	<b>A1b: Sex</b> <input type="checkbox"/>
		<b>1. Male</b>
		<b>2. Female</b>
<b>A1c: Age</b> <input type="text"/>	<b>A1d: Nationality</b> <input type="checkbox"/>	<b>1. Ghanaian 2. Other African 3. Non African</b>
<b>A2: Region Name</b>	<input type="text"/>	<b>A3: Region Code</b> <input type="text"/>
<b>A4: District Name</b>	<input type="text"/>	<b>A5: District Code</b> <input type="text"/>
<b>A6: Sub-Metro Name</b>	<input type="text"/>	<b>A7: Sub-Metro Code</b> <input type="text"/>
		<b>FOR OFFICE USE</b>
<b>A9: Locality Name</b>	<input type="text"/>	<b>A10: Locality Code</b> <input type="text"/>

## SECTION B: CONTACT DETAILS OF OPERATOR OF MOBILE BUSINESS

This section seeks information on the contact detail of the operator of the mobile business. Enumerators must ensure that the telephone number they obtain from the establishment are 10-digits.

**B1: Telephone Number**

## SECTION D: PRINCIPAL ACTIVITY OF THE MOBILE BUSINESS

This section contains only one question. This question will collect information on principal economic activity of the business. Enquire from the respondent the main product sold or service rendered to customers. Search and select the corresponding code that matches the response.

**D1: What is the principal economic activity (product or service) of the Hawker / Mobile Business (MAIN HAWKING ACTIVITY)**

1. Selling of prepared food



2. Selling of unprepared food
3. Selling of fruits
4. Selling of beverages (eg water, drinks)
5. Retail sale of information and communication equipment (eg mobile phones, SIM and recharge cards)
6. Retail sale of other household equipment (sun glasses, carpet furniture, curtains, electronic items etc)
7. Retail sale of cultural and recreational goods (artifacts)
8. Retail sale of goods except motor vehicles and motor cycles (clothing, shoes, bicycles)
9. Retail sale of related parts and accessories of motor vehicles and cycles (wiper blades, side mirrors etc)
10. Repair of household items (including shoes, clothing, electronic items etc)
11. Other monetary intermediation (mobile money, other digital financial activities)
12. Retail sale of variety of goods except food, fruits and beverages
13. Retail sale of pharmaceuticals, traditional medicines, medical goods, cosmetics and toilet articles
14. Retail sale of live animals
15. Legal and accounting activities (commissioner of oath)
16. Gambling and betting activities (e.g., lottery)
17. Beauty care and other beauty treatment activities (hairdressers, barbers, pedicure and manicure)
18. Retail sales of automotive fuel
19. Retail sale of books, newspapers, stationary and office supplies
20. Retail sale of games and toys
21. Other service activities

## **SECTION J: REVENUE**

This section seeks to collect information on the revenue (sales) of the mobile business and information on the number of days they work in a typical week and hours worked in a typical day. Enquire from the operator about his or her average daily sales from the business on a normal day and write the code that matches the range of the response.

J1a: What is your average daily revenue (Gh¢)?

1. 1-50
2. 51-100
3. 101-200
4. 201-300

5. 301-400
6. 401-500
7. 501-600
8. 601-700
9. 701-800
10. 801-900
11. 901 and above

J1b: On average, how many days do you work in a week?

Ask the respondent the average number of days he/she works within a week and write the number in the box.

J1c: On average, how many hours do you work per day?

Ask the respondent the average hours he or she works within a normal day and write the figure in the box. If it is a single number precede it with a "0" in the first box.

## **CHAPTER TEN**

### **OPEN SPACE BUSINESSES**

#### **Introduction**

The 2023 IBES will collect information on business activities in open spaces throughout the country. Business activities in open spaces will be identified and enumerated in such places as: markets (in and around), stations (Railway, Lorry, Taxi ranks, Bus terminals, etc.), harbours and airports, international borders (entry and exit points), beaches, along the road, under bridges and overpasses, floors around shops, pavement at office premises and veranda of houses, etc. These businesses operate in fixed locations but not in structures and are exposed to weather conditions. Open space businesses include those operating under umbrellas, on the floor, and on table tops.

Enumerating businesses in open spaces forms part of the strategies to ensure that every business is captured. Businesses in open spaces will be enumerated using the open space questionnaire. This chapter discusses how to complete the open space questionnaire.

#### **Strategies to Ensure Complete Coverage of Open Space Businesses**

The following strategies would be implemented to ensure complete coverage of open space businesses.

##### ***Prior to the fieldwork:***

- District Statisticians, Regional Field Supervisors in collaboration with assemblymen would identify locations with high incidence of open space businesses.

##### ***During the fieldwork:***

- Secondary enumerators would be assigned to the EZ to purposely enumerate open space business in locations with high incidence. These would mostly include open space businesses in and around markets

- Other open space businesses, particularly those independent of markets, would be enumerated by the primary enumerator.

**Note: Manufacturing businesses should be enumerated with establishment questionnaires even if they are in open space. For example, Manufacture of food products; Manufacture of prepared meals and dishes; Distilling, rectifying and blending of spirits; Preparation and spinning of textile fibres; Spinning, weaving and finishing of textiles; Processing of coffee and tea; Processing and preserving of fish, meat, crustaceans and molluscs; Repair and maintenance of machinery and equipment (e.g. motor vehicles); Tanning and dressing of leather; dressing and dyeing of fur etc.**

**It is also important to emphasise that businesses that display their wares or operate in open spaces but with attached structure must not be treated as open space businesses. These businesses should be enumerated using the establishment questionnaire. Examples include car rental services, garages, washing bays etc.**

## Enumerating Open Space Businesses

Businesses in open spaces will be enumerated using the open space questionnaire. Like businesses in structures, open space businesses will be enumerated throughout the fieldwork period. It is important to note that open space businesses will be enumerated solely with the CAPI. To avoid double counting, respondents would be provided with an IBES branded wristband after they have been enumerated. Nonetheless, enumerators should verify from the respondents if they have been enumerated.

## Completing the Open Space Questionnaire

It instructive to note that open space businesses everywhere will be enumerated. Open space businesses should only be enumerated using the CAPI.

The questionnaire starts with a reference number, which uniquely identifies the business.

	Reg. Code	District Code	District Type	Sub-Metro Code	EZ No.	EA No.	Business No.
Reference Number	<input type="text"/> <input type="text"/>	- <input type="text"/> <input type="text"/>	- <input type="text"/>	- <input type="text"/> <input type="text"/>	- <input type="text"/> <input type="text"/> <input type="text"/>	- <input type="text"/> <input type="text"/> <input type="text"/>	- <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
GPS Code:	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>				<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>		

**The Reference Number** is a 17-digit code made up of identifies such as region, district, district type, sub-metro, EZ number, EA number and Establishment number:

For the region, district, sub-metro, EZ and EA fields, the enumerator must indicate the right codes that pertain to the specific location of the business. This information is pre-loaded on the tablets and will be pre-filled once the desired EA has been chosen and confirmed.

Establishment number: This is a 4-digit serial number assigned to an establishment in an EZ. This number is automatically generated once the business has been enumerated.

The next item on the open space questionnaire after the Reference Number is the **GPS code** of structure.

GPS coordinates, made up of longitudes and latitude, must be picked by the enumerator using the tablet. The enumerator must ensure that s/he obtains a precision of 5 metres or less.





The contact number of the business is the information of interest here. The enumerator should obtain and record the telephone number of the owner/manager of the business. Enumerators must ensure that they obtain the correct phone numbers. These numbers should be 10-digits.

## **SECTION D: PRINCIPAL ACTIVITY**

### **C1: What is the Principal Activity of the business**

The tablets have been pre-loaded with a list of economic activities and their codes. The enumerator should carefully go through the list and choose the option that best describes the principal activity of the business. The pre-loaded list of economic activity classifications of Open Space Businesses are as follows:

- a) Selling of prepared food
- b) Selling of unprepared food
- c) Selling of fruits
- d) Selling of beverages (e.g. water, drinks)
- e) Retail sale of information and communication equipment (e.g. mobile phones, sim and recharge cards)
- f) Retail sale of other household equipment (e.g. sun glasses, carpet furniture, curtains, electronic items etc)
- g) Retail sale of cultural and recreational goods (e.g. artifacts)
- h) Retail sale of goods except motor vehicles and motor cycles (e.g. clothings, shoes, bicycles)
- i) Retail sale of related parts and accessories of motor vehicles and cycles (e.g. wiper blades, side mirrors etc)
- j) Repair of household items (e.g. shoes, clothings, electronic items etc)
- k) Other monetary intermediation (e.g. mobile money, other digital financial activities)
- l) Retail sale of variety of goods except food, fruits and beverages
- m) Retail sale of pharmaceuticals, traditional medicines, medical goods, cosmetics and toilet articles
- n) Retail sale of live animals
- o) Legal and accounting activities (commissioner of oath)
- p) Gambling and betting activities (e.g. lottery)
- q) Beauty care and other beauty treatment activities (e.g. hairdressers, barbers, pedicure and manicure)
- r) Retail sales of automotive fuel
- s) Retail sale of books, newspapers, stationary and office supplies
- t) Retail sale of games and toys
- u) Other service activities

### **D8 and D9**

**D8: How long have you operated from this location?**

<input type="text"/>	<input type="text"/>	<input type="text"/>	Months
----------------------	----------------------	----------------------	--------

**D9: Is this business an agency providing mobile**

**money services? (Mobile money agent) 1. Yes  2. No**

**D8: How long have you operated from this location?**

This question requires enumerators to find out how long the business has operated from the location and record the response in Months. For example, for a business that has operated for 2 and half years, the enumerator should record 36 (2X18)

**D9: Is this establishment an agency providing mobile money services? (Mobile money agent)**

This question focuses on businesses serving as mobile money agents. The response options are:

YES

NO

Enumerators are to select YES only if the business serves as a mobile money agent.

**SECTION E: PERSONS ENGAGED**

This section seeks to collect information on persons engaged by all businesses. The information in this section is critical for analyzing employment: by sex, region, economic activity, and sector. Additionally, this information will serve as a basis for selecting samples to conduct economic and other related surveys.

**E1: How many persons are currently engaged in this business?**

**ALL WORKERS:**    **TOTAL**     **MALE**     **FEMALE**

**E1: How many persons are currently engaged in the activities of the business.**

This seeks information on the number of persons employed by the business. The enumerator should enquire and record the total number of workers engaged in the business activity, disaggregated into males and females. The number of males and females must add up to the total number of workers.

**SECTION J: REVENUE AND OWNERSHIP OF PRODUCTS**

**J1a: What is your average daily turnover (Ghc)?**

- 1) 1 - 100                      2) 101 - 200                      3) 201 - 500                      4) 501 - 1000                      5) 1,001 - 1500                      6) 1,501 - 2,000
- 7) 2,001 - 3,000                      8) 3,001 - 4,000                      9) 4,001 - 5,000                      10) 5,001 - 10,000                      11) 10,001 - 20,000                      12) 20,000 and above

**J1b: On average, how many days do you work in a week?**     **J1c: On average, how many hours do you work per day?**

**J1a: What is your average daily turnover (GHS)**

Question J1a seeks information on the total amount of money received from carrying out business operations such as sales. Enumerators must probe for the daily amount received in sales / revenue and select the turnover range that applies. For example, select option 3 if the average daily sales is GHS490.

**J1b: On average, how many days do you work in a week?**

In this field, enumerators should probe and indicate the average number of days worked in a week

**J1c: On average, how many hours do you work per day?**



This question seeks the average hours worked per day. Enumerators should probe and state the average hours worked per day in this field.

**J2: Who owns the products or services traded?**

This question seeks information on the ownership of goods and services being traded. The options considered are:

1. Self
2. Others (Individual or businesses)

Enumerators must probe and record who owns the goods and services being traded. Option 2 should be selected for those selling goods on behalf of other people. Option 2 also includes those trading goods and services on commission basis.

## **CHAPTER ELEVEN**

### **TABLET BASICS AND CAPI USE**

#### **Introduction**

In order to achieve the objectives of Integrated Business Establishment Survey, Computer Assisted Personal Interviewing (CAPI) and Computer Assisted Web Interviewing (CAWI) technology is employed where tablet will be used as the main electronic tool for the data collection. GSS has been conducting Surveys and Censuses using this mobile device technology in both android and windows environment for about a decade now.

Advancement in Information and Communication Technology, predominantly in mobile computing devices and wireless connectivity have brought up new approaches for data collection which are faster and collect data that is of higher quality than the traditional paper-based methods. Mobile electronic devices, such as laptop, tablets, smartphones and Personal Digital Assistants (PDAs) have proved to reduce data capture and processing time, minimize errors, near real-time data transmission and monitoring thereby improving data quality and data capture over the Paper Assisted Personal Interviewing (PAPI) method. This document is in two parts, The Hardware (Tablet) and the Software (CAPI Application). It contains a complete guide and description overview of a tablet and Application used for the 2023 IBES.

## **General overview of a tablet**

### **What is a tablet?**

A tablet is a wireless, portable personal computer device with a touchscreen as a primary input and output interface. The tablet *form factor* is typically smaller than a notebook computer, but tablet has a larger screen than a smartphone. The applications that the tablet use can be android, windows, or apple operating system but the IBES tablets used the android operating system.

### **Features of a tablet**



## Accessories



SD Card



Android  
Charger



Power Bank



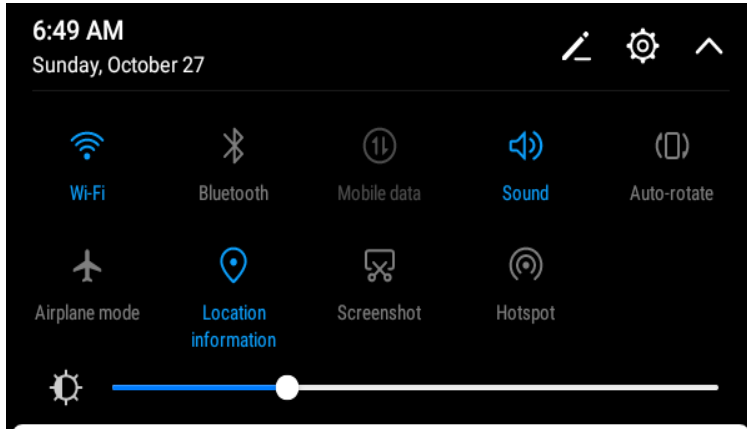
Android Cable

Accessories are peripherals that are added to the tablets to aid its functionality for a successful IBES data collection exercise. These are SD card, charger, power bank, android cable

- **ANDROID CHARGER:** This is an accessory that is attached to the tablet to enable you to charge the tablet battery whenever the battery life is low.
- **SD CARD (Secure Digital Card):** It is a type of memory card typically used in tablet or smartphones which is slotted into the tablet purposely for backups.
- **POWER BANK:** It is a portable charger designed to recharge your cell phones, tablets and other electronic gadgets.

## Status bar (Icons)

The Status bar is located at the top of the home screen which provides device information (such as Internet Network (WiFi) status, Location, Hotspot and Bluetooth).



## Tablet key functions needed for 2023 IBES CAPI application.

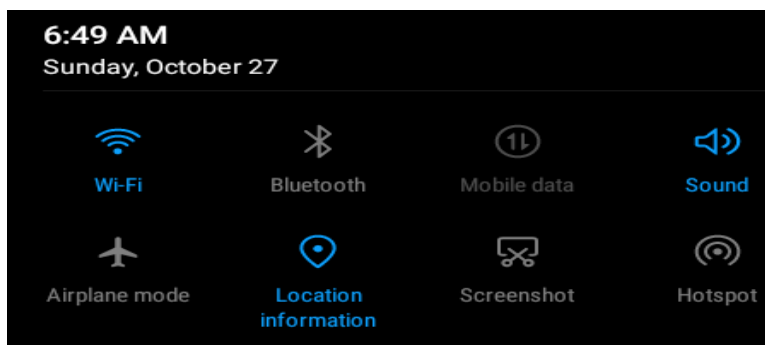
There are some key functionalities of the tablet that the Enumerator and Supervisor will be using throughout the field exercise. These functions are the *Location (GPS)*, *Bluetooth*, *Mobile Data* and *WiFi*

## Location (GPS)

Location is a Global Positioning System (GPS) that allows the enumerator to pick a coordinate (Longitude, Latitude, Altitude, and Accuracy) of every structure that will be listed. The accepted accuracy of a structure coordinate should be within 5 meters range. It also allows tracking of the tablet's location.

How to turn on Location (GPS)?

- Swipe down from the top of the Tablet Home Screen to view the status bar
- Tap on the Location (GPS) icon to activate (The icon will turn to Green)



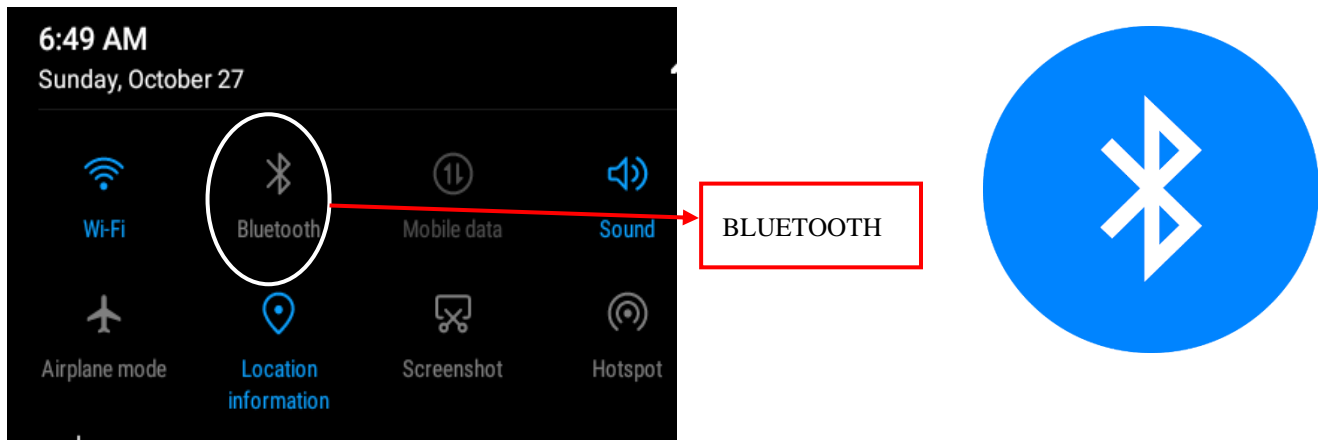
Picking accurate GPS Coordinates Do not pick GPS coordinates under cloudy/dark weather

- Do not move the tablet whiles GPS is reading
- Always stand in the middle or in front of the structure to pick the GPS coordinate

- Never pick GPS coordinates under a shade or a covered space
- Location Accuracy Settings
- Open your device's Settings app.
  - Tap **Location**.
  - Tap **Advanced** > **Google Location Accuracy**.
  - Turn **Improve Location Accuracy** on or off

## Bluetooth

Bluetooth is a short-range communications technology that connects the tablet wireless to another tablet. This function allows first level data transmission (Synchronization) among team members (Enumerator-to-Supervisor/Supervisor-to-Enumerator).

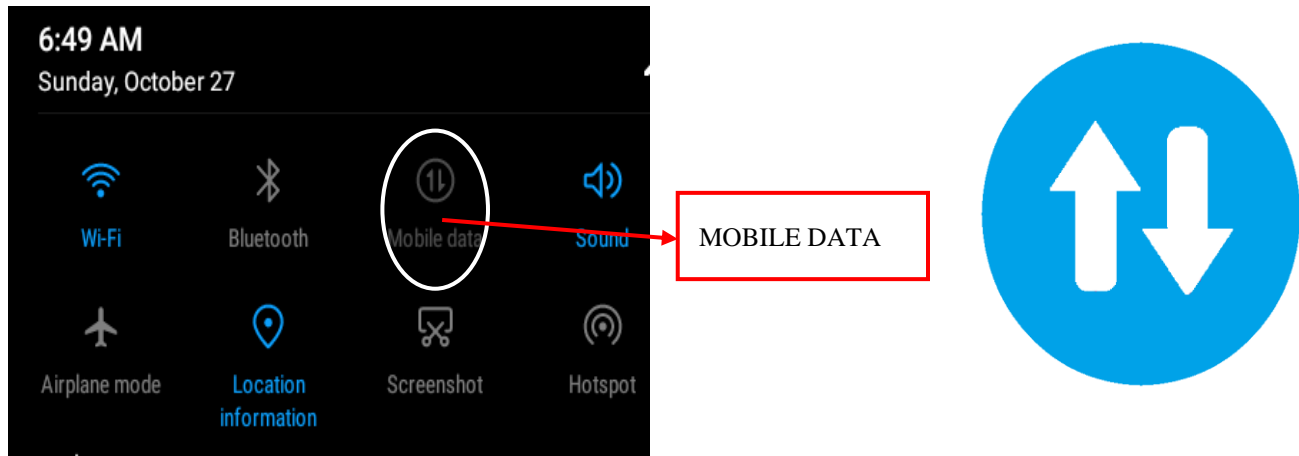


Using Bluetooth to pair your Tablet.

- Use the status bar to turn your device's Bluetooth on or off. From a Home screen, Swipe down the status bar to display the notification panel.
- Tap on the Bluetooth Icon to turn Bluetooth on or off.
- When Bluetooth is first turned On, it scans for nearby Bluetooth devices and displays them for pairing.
- Make sure that the target device is discoverable so that your device can find it.
- Tap the name of the target device when you see it displayed in the Bluetooth devices section. Your device automatically tries to pair with the target device.
- Always make sure that, the Bluetooth is turned on before pairing.
- The Bluetooth communication range is approximately 30 feet (9 metres).
- Both the sender and the receiver should be ready concurrently
- Without pairing the two devices, Bluetooth data transfer from Enumerator to Supervisor will not take place.

## Mobile data (Hotspot)

Mobile data is Internet content delivered to mobile devices such as tablet and smartphones over a wireless cellular connection. This allows the field officer to transmit data to the Central Server (HQ) via internet connection.



### How to turn on or off mobile data

- From the Home screen, swipe down the status bar to display the notification panel.
- Tap on the Mobile Data Icon to turn it on or off.
- A sim card is required in order to have a base connection.
- Check you have enough internet data bundled (use \*124# on all networks to check)
- Always check the strength of the Network signals (Edge, 2G, 3G, 4G). Network signal strength of 3G or 4G is appropriate to enable you send the data.
- The strength of the Internet connection varies depending on the type of network connected or available.

## WiFi

This allows you to connect to the Internet through Hotspot or another source



How to turn on/off WiFi

- From a Home screen, swipe down the status bar to display the notification panel
- Tap on the WiFi icon to turn on to see available networks and connect.

### WiFi Networks Connection Troubleshooting – Samsung Tablet

To scan for a Wi-Fi network and connect to it:

- From a Home screen, tap **Apps** > Settings. **Or**
- Drag the Status bar down to display the Notification panel. (generic)
- Tap **Connections** > **Wi-Fi**, and then tap **On/Off** to turn on Wi-Fi. **or**
- Tap on Wi-Fi icon to turn on Wi-Fi after the status bar is dragged down

*When Wi-Fi on, your device automatically scans for available networks and displays them.*

- Tap the network you want to connect to.

*When you select an open network, you are automatically connected to the network. Otherwise, enter a password to connect.*

### WiFi Networks Connection Troubleshooting – Huawei Tablet

Method 1:

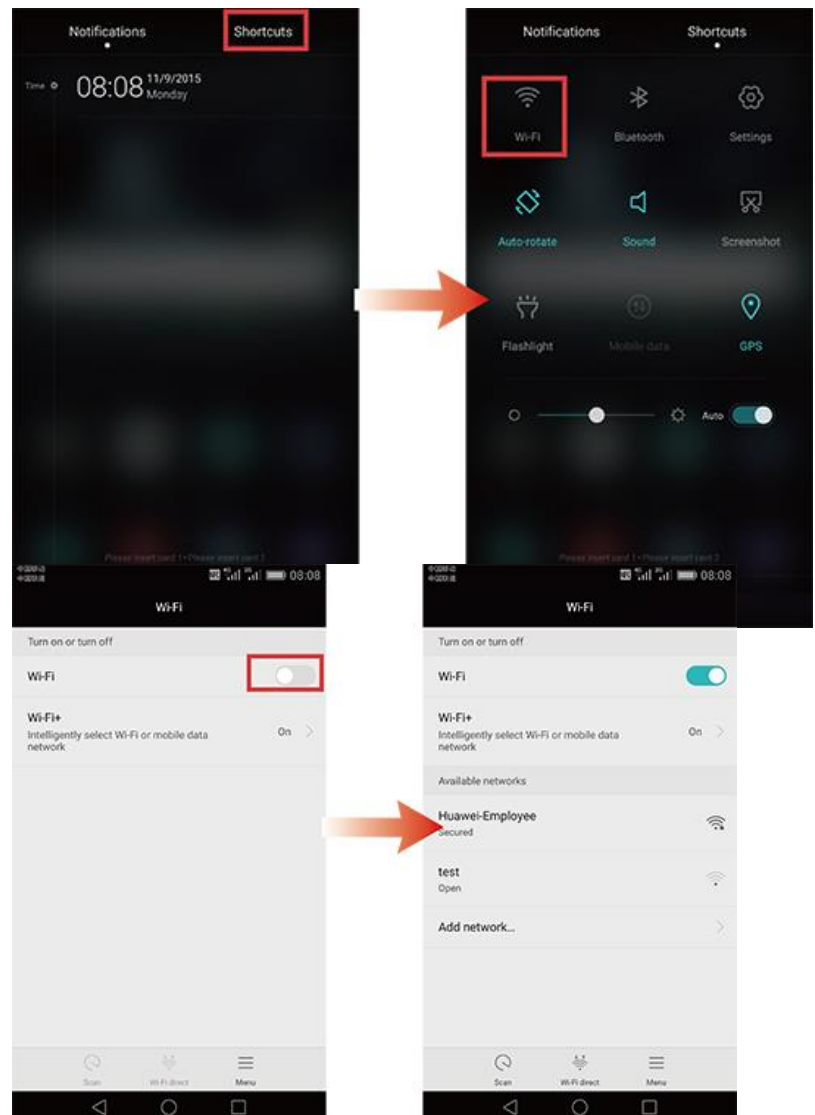
Swipe downward from the status bar to open the notification panel.

On the Shortcuts page, touch and hold Wi-Fi to enter Wi-Fi settings screen.

Swipe Wi-Fi switch to turn on Wi-Fi.

The phone will search and list the available WLAN networks

Tap the WLAN network that you'd like to connect. If you've chosen an encrypted network, you need to type in password to connect



## Date and time

Time and Date of interviews are automatically recorded. All age and other computations are linked to the system date and time. The Date and time can be checked from the **logout screen, Home Screen** or at the **Top right** of the screen.

How to Set date and time (Steps Below)




- i. From a Home screen, swipe from the bottom to the top of the screen
- ii. Tap on **Settings** >> **General Manager** (Samsung tablets), or **Advanced Settings** (Huawei tablets)
- iii. Tap **Date & Time**
- iv. Tap Set time, select the time, then tap set.
- v. Tap **Automatic date and time zone** to allow manual setting of the date and time.
- vi. Tap **Set date** to set it to current date.
- vii. Tap **Set time** to set it to current time.

## Charging your tablet battery

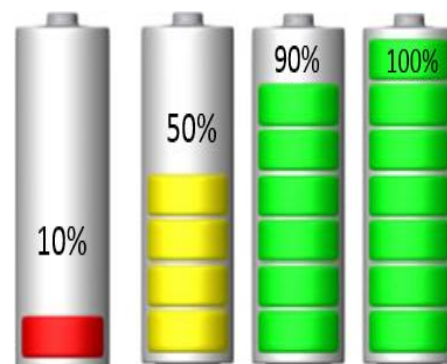
**Battery power life** is measured by the amount of power in the **battery** at a point in time. The run time of the battery power depends on the level of which the battery has been charged. Users should ensure that tablets are fully charged before work starts.

### *Levels of battery charge*

---

	<b>Battery full:</b> Battery is fully charged.
	<b>Battery low:</b> Battery is low.
	<b>Battery charging:</b> Battery is charging.

---





•

1. Unplug the tablet and the charger from the electrical plug when it is fully charged
2. Use the AC power supply defined in the specifications of the charger. An improper power voltage may cause a fire or a malfunction of the charger.
3. If the power cable is damaged (for example, the cord is exposed or broken), stop using the cable at once. Otherwise, it may lead to an electric shock.
4. Do not leave your tablet plugged all the time (i.e. overnight). *Overcharging is bad for the battery.*




**How do I reduce battery power drain on the tablet?**

If the battery on your tablet is draining very fast there are some few things you can do to improve battery performance.

1. Make sure that the tablet is fully charged in the morning before you start work. Fully charging your tablet each evening will improve battery performance during the workday.
2. Make sure that you put your tablet into sleep mode or turn it off when you are not using the tablet to save battery power.
3. You can also reduce the screen brightness to reduce battery drain
4. Some functions such as Bluetooth, WiFi, Mobile Data should be switched off (deactivated) to reduce power consumption

**Navigation Icons**

The following icons are commonly used on the Home screen or other application screens. Touch the icons to perform the following operations.

Touch...	To...
	Return to the previous screen.
	Return to the Home screen.
	Open the list of recently used applications and running applications.

**Rules governing the use of tablet for IBES fieldwork.**

Enumerators must always adhere to GSS acceptable use policy and stated rules.

1. The Tablet and its Accessories are **properties of GSS**, and it is your responsibility to take care of them.
2. The primary purpose of assigning the tablet is for 2023 IBES field data collection; *usage of tablet for any other purposes is strictly prohibited.*
3. Each tablet has been prepared for one field officer only and should be used by that field officer alone. Sharing the tablet with unauthorized person is **strictly prohibited.**
4. **Never** create a password to lock the tablet screen.
5. Do not attempt to **upgrade, update, or download any application** on the tablet or **install** any application.
6. No Supervisor/ Enumerator is allowed to **repair or to authorize repairs of a damaged** tablet.
7. Do not delete **any folders or files** on the tablet.
8. Keep the tablet away from **children.**
9. Promptly report **any lost or stolen** tablet or any accessories to the Supervisor or DIT.
10. Do not copy data off the device since it is a breach of the Data Protection Law.

### **Handling Tablet and accessories**

#### **Things to do:**

1. Keep the tablet in its case.
2. Keep tablet and accessories in your bag when not in use.
3. Use only the assigned accessories.
4. Adhere strictly to the prescribe modes of use.
5. Use tablets solely assigned to you as a field officer.

#### **Things not to do:**

1. Do not expose the tablet to any liquid substance, e.g., water, rain, drinks, cooking oil, kerosene, etc. (If any liquid enters the tablet, stop using the device immediately, power it off, remove all the cables connected to it, and contact the supervisor and the DIT Officer)
2. Do not place the tablet on a floor, on bed or in a chair.
3. Do not expose the tablet to dust or dirt.
4. Never place objects on top of the tablet.
5. Do not expose the tablet to excessive sunlight.
6. Do not slam the tablet when you are putting it down.
7. Never place the tablet on rough or sloped surfaces.
8. Keep the device far from sources of heat and fire, such as a heater or a candle.
9. Do not subject the tablet to magnetic fields.
10. Charge whenever and wherever there is opportunity (At night, in the car, etc.)
11. During thunderstorms, power off the tablet, and disconnect all cables connected to it to prevent it from getting damaged due to lightning strikes.
12. Do not use the device where inflammables or explosives are stored, for example, in a gas station, oil depot, or chemical plant. Otherwise, explosions or fires may occur.
13. Keep the tablet out of the reach of children.
14. Do not expose the tablet to the public when not in use.

15. Do not put the tablet in high temperature places (over 40°C), especially not in a car with the windows closed in the sun.
16. Press the tablet's buttons gently. Pressing them or the screen too hard can damage the tablet.

### Basic Troubleshooting

Possible Problem 1:

Tablet's screen turns blank.

What to do:

- the tablet may be in "Sleep Mode"; Press on the *Power Button* to wake it up.
- Press and hold the power button for about 3 seconds to check if the battery has run out
- increase the brightness of the tablet if the screen is dimmed.

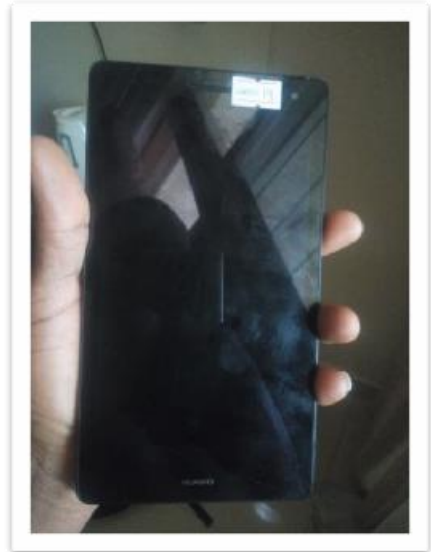
Possible Problem 2:

Tablet *not turning on (or not booting)* after pressing power button (once or many times)

What to do:

- the battery may not be charged. Plug the adapter to a power outlet and charge it for about **10 mins**.
- turn on the tablet.
- if tablet still does not start, charge for a few minutes more and try again.

*If problem persists, contact the DIT.*



### Distribution and Receipt of IT Assets

To account for all IT Assets allocated, field officers will complete the tablet distribution and receipt form. The form is in two in one which will seek to perform double function.

Note that the form will be signed by each field officer for the purposes of accountability and clearance for payment.

1. Issuing of Tablets and its' Accessories to the Field Officers:

- The IT Unit will issue the tablets to ZIT.
- The ZIT will physically cross-check items received with records provided by IT and certify.
- The ZIT will issue the tablets to the supervisors and interviewers using the Tablet Distribution and Receipt Form.
- The supervisor and enumerators in the team will complete the issuance section of the form and return it to the ZIT before CAPI training and main fieldwork starts.

2. Receipt of Tablets and its' Accessories from the Field Officers for Clearance:

- When fieldwork is finalised, each team will complete the Receipt section of the form and submit it together with the tablets and accessories to the ZIT.
- The ZIT will check that all accessories are returned with the tablets before the team is certified for final payment.
- The IT team will check the functionality of all assigned tablets and accessories before final payment.
- The ZIT and RIT will finally send the tablets to the HQ IT.
- The HQ IT will also cross-check the items with the records and certify.

**Sample of the receipt form**

GHANA STATISTICAL SERVICE											
INTEGRATED BUSINESS AND ESTABLISHMENT SURVEY (IBES)											
TABLET DISTRIBUTION AND RECEIPT FORM											
SN.	NAME OF USER	TABLET TAG NO.	ACCESSORIES				STATUS	DATE		SIGNATURE	
			C&C	SD Card	PB	Tablet Case		Receipt	Returned	Signed In	Signed Out
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											

**Introduction to CAPI**

**What is CAPI?**

2023 Integrated Business Establishment Survey (IBES) is set up to employ Computer-Assisted Personal Interviewing (CAPI) and Computer Assisted Web Interviewing (CAWI) as a technique in which field officers will use to administer questionnaire and record responses from the respondent with the help of

an electronic Device (tablet). The CAPI application runs on CSEntry which is an android version of the Census and Survey Processing System (CSPro). It is a user-friendly application that is being controlled by a menu system. Its features and navigations can also be easily manipulated by the field officer or the user with an ease.

2023 IBES will use Three different application forms for the fieldwork exercise in the first phase. These are *IBES Establishment*, *Hawkers (Mobile Business)*, *Business in Open Space*. However, every user (trainee or field officers) is required to be trained to be more equipped with the requisite knowledge and skills to effectively use the IBES CAPI application appropriately with all the features for a successful field data collection.

The 2023 IBES CAPI application has four main components, and these are the *Login controls*, *navigations and features*, *menu system* and *data sharing or transmission*.

### **Concept and Definitions**

- **Navigation:** It is the movement between pages and features of the CAPI application with the help of the directional keys (arrow).
- **Features:** These are attributes or objects of the CAPI Application which make it user-friendly for the field data collection. These features include: *Radio button; Check box; User bar; Text boxes; Alphanumeric keypad; Search icon; Question mark icon*
- **Skip patterns:** These are conditional and consistency checks included in the app to ensure field data collected make logical sense. *E.g. If a person has never been to school then the person cannot respond to a question on highest level of education.*
- **Filters:** These conditional checks allow a household member to answer particular questions leaving out other members who are not eligible to answer these questions. *E.g. Economic activity module is for household members 15 years or older.*
- **Primary:** Is the assignment of an EZ to an original Enumerator (*first to receive the EA*) by the Supervisor.
- **Supporting/Secondary Enumerators:** Additional Enumerator(s) to support a primary Enumerator.
- **Sharing:** Is a distribution of a work that is supposed to be enumerated by the primary Enumerator.

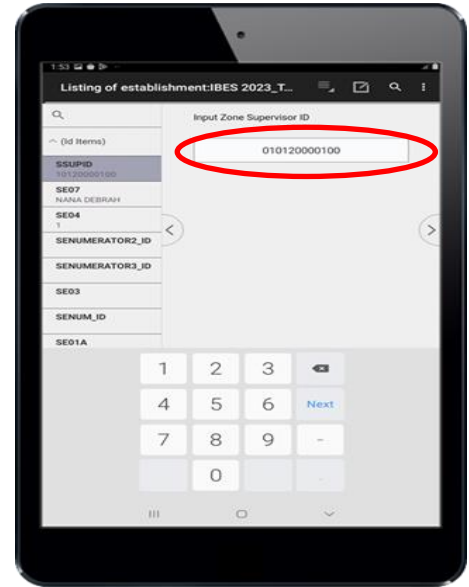
### **Login Controls (ID Composition)**

In 2023 IBES application user login is required to get access to the main system or application. The login ID is a unique identification number of a field officer that makes reference to the geographical information, Team and the status of the field officer. It is made up of 12 digits. Both Supervisor and Interviewer is assigned a unique login ID, a 12-digit code which is required before proceeding to use the CAPI Application. This is to control the actions of the field officers in a designated working area and ensure accountability.

### A. Supervisor

Every Supervisor is assigned a **12-digit** unique ID code which is required before proceeding using the application. This is to ensure some level of accountability as to who does what at a point in time. The composition of the Supervisor ID is made up of:

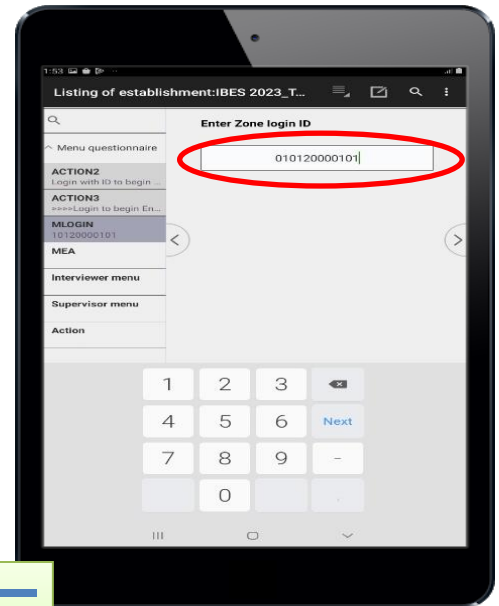
Regional Code	00
District Code	00
District Type	000
Supervisor ID (ZA)	000
Status	00



### B. Enumerator

Every **Enumerator** is assigned a unique ID, a 12-digit code which is required to proceed using the app. This is to ensure some level of accountability as to who does what at a point in time. The composition of the ID is made up of:

Regional Code	00
District Code	00
District Type	000
Zone ID (EZ)	000
Status	01



**NOTE:** Additional Enumerator(s) to support a primary Enumerator will be assigned a status 02, 03, 04,99 etc., depending on the number of Enumerators assigned. These Field officers are called *Secondary or Supporting Enumerators*

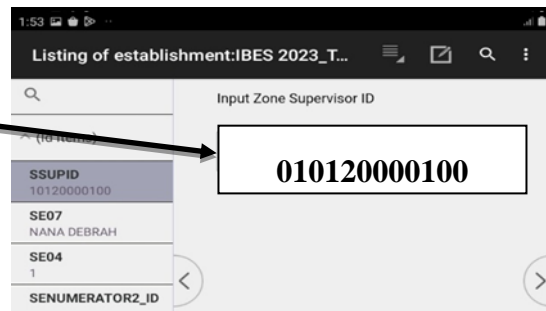
### Examples of Supervisor Login ID Composition

#### Supervisor's Login ID

This shows a login ID of Team 1 Sup in Western Reg.

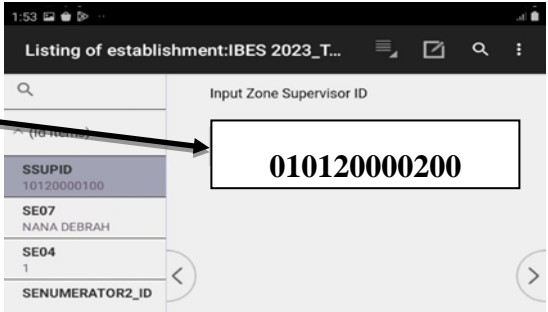
**010120000100.**

**01** means **Zone Sup ID** and **00** means the Supervisor tatus



**Supervisor's Login ID**

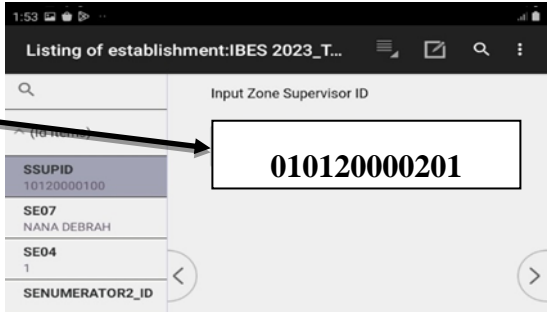
This shows a login ID of Zone Sup in Western Reg.  
**010120000200.**  
**02** means **Zone Sup ID** and **00** means the Supervisor tatus



**Examples of Interviewer Login ID Composition**

**Interviewer's Login ID**

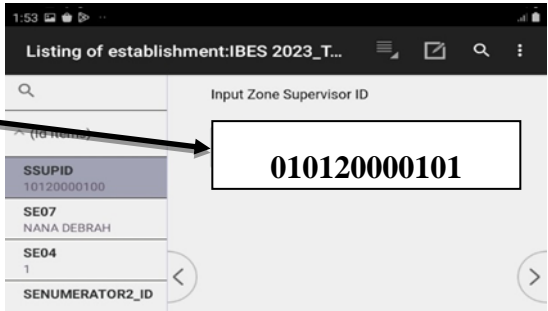
This shows a login ID of EZone Two (2) in Jomoro in Western Reg.  
**010120000200.01** means EZone Two (2) and **01** means the Primary Enumerator in the EZ



**Interviewer's Login ID**

This shows a login ID of EZone One (1) in Jomoro in Western Region.  
**010120000101.01** means EZone One (1) and **01** means the Primary Enumerator in the EZ

**CAPI Navigation and Features**



It is the movement between pages and features of the IBES CAPI application with the help of the directional keys (arrow). The features are attributes or objects of the CAPI Application which make it user-friendly for the field data collection.

These features include:

Radio button; Check box; User bar; Text boxes; Alphanumeric keypad, Search icon; Question mark icon

## Application versioning

A particular release of the 2023 IBES CAPI application that is slightly different from earlier release of the same CAPI App or a copy of CAPI Application that has been changed so that it is slightly different from the one that is being in use. The version helps you to know if there is a new upgrade, update or changes in the application.

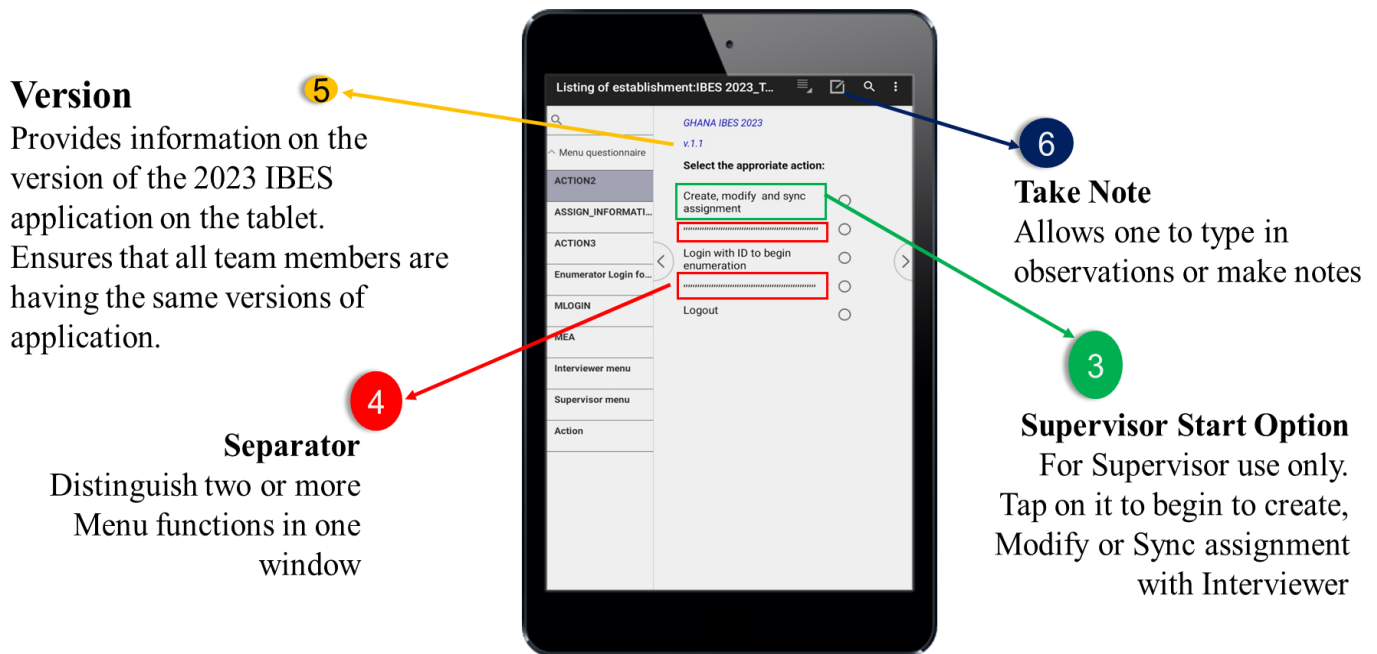
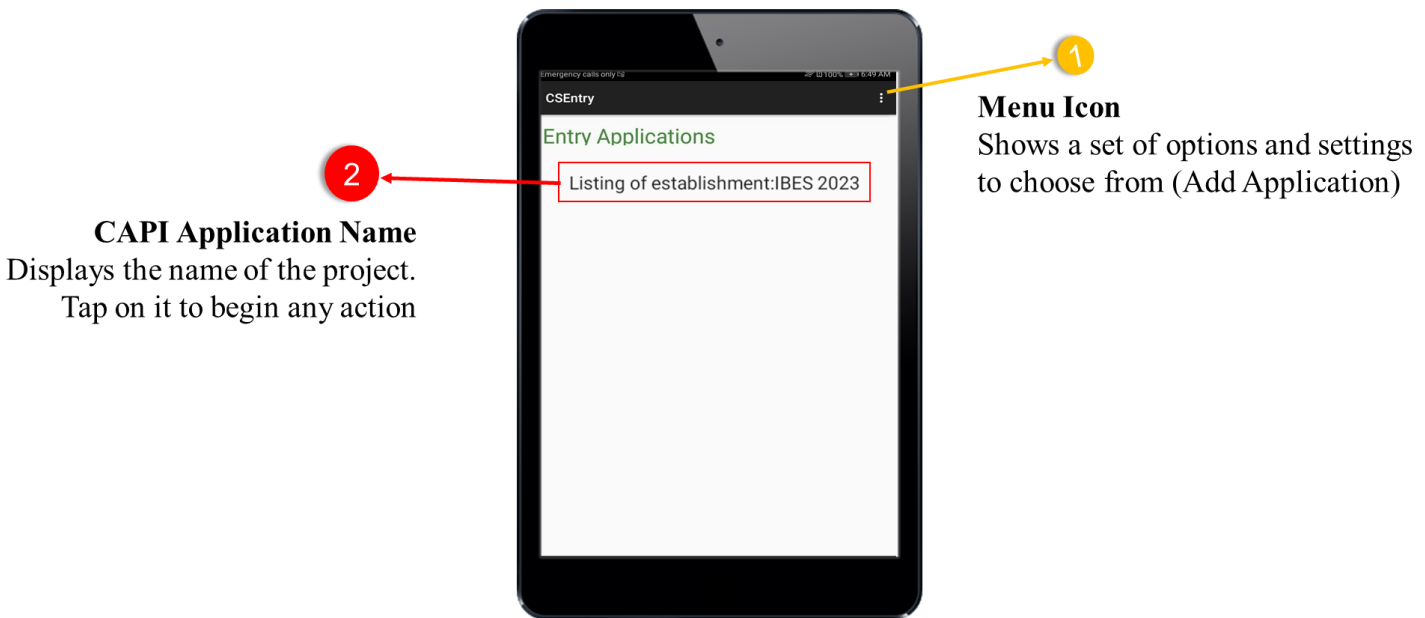
## 2023 Integrated Business Establishment Survey CAPI Navigations

The image shows a tablet screen with the following callouts:

- 1 Search**: Image of a magnifying glass located at the top-right corner of the CAPI window.
- 2 Navigation Button: Previous Page**: Enables movement to the preceding page.
- 3 Navigation Button: Next Page**: Enables movement to the next page.
- 4 Home Button**: Takes one to the home screen of the tablet.
- 5 Back Button**: Enables termination, temporary save or advancement of interview.
- 6 Task Overview Button**: Shows all running applications.

## 2023 Integrated Business Establishment Survey CAPI Features





**2023 Integrated Business Establishment Survey CAPI Features**

**7**  
**Number of Cases**  
Shows the Total number of assignment created for Interviewers on the Supervisors' tablet

**8**  
**Cases of Assignment**  
Shows the name of Interviewers assignment has been created and their Login IDs

**9** **Sub Menu**  
Shows a set of options and settings to choose from

**10** **Search Button**  
Allows the search of information pertaining to any particular page

**11** **Add New Case**  
Tap on it to Create more assignments

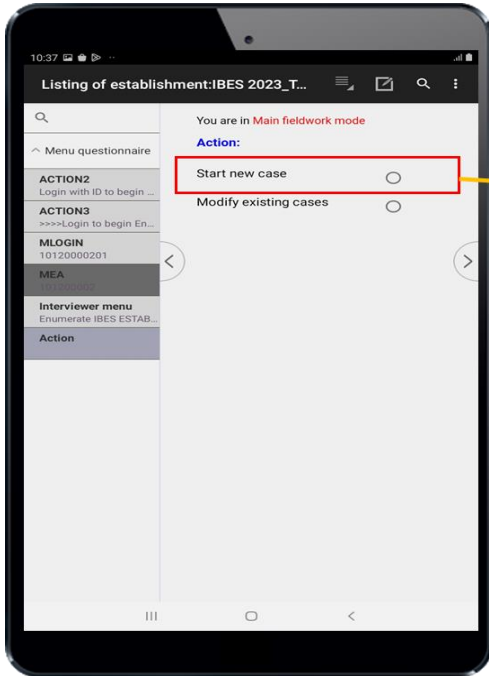
**12**  
**Number of Cases**  
Shows the total number of questionnaires started or completed.

**13** **Cases not Completed**  
Cases with the red mark shows the partially cases

**14** **Cases not Completed**  
Cases with the red mark shows the partially cases

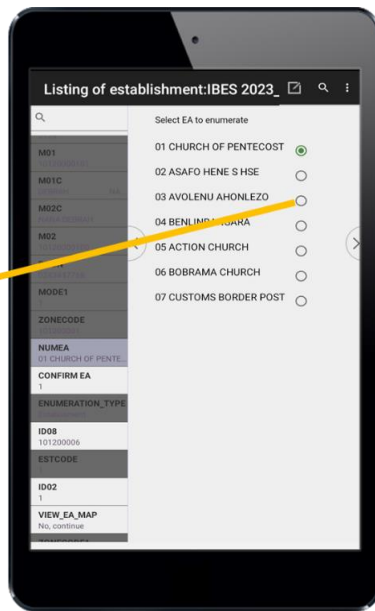
**15** **Add New Case**  
Starts listing for a new Establishment or a new questionnaire

**2023 Integrated Business Establishment Survey CAPI Features**



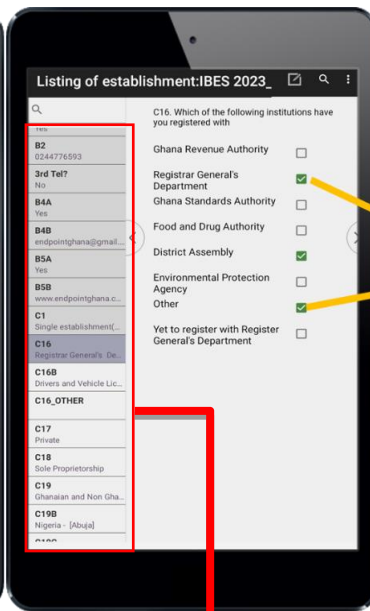
### Open Questionnaires

This is the button to use to start the Listing Form



### Radio Button

Allows choice of only one response from a predefined set of options.



### Check Box

Allows choice of more than one response (multiple) from a predefined set of response options.

**Case Tree:**  
The case tree displays all fields that have been entered in the data entry application, showing the field label as well as the field response. If you tap on a field, you will be taken to that field. This allows you to quickly move from one part of the questionnaire to another.

**19**  
**CAPI Question**  
Displays the question to be answered

**20**  
**Textbox**  
Allows an enumerator to type text such as name of a person, numbers such as age of a person or both numbers and alphabets (alpha-numeric) such as an address

**21**  
**Alphanumeric Keypad**  
CAPI brings up alpha-numeric keys for textboxes that require both alphabets and numbers.

**22**  
**Note**  
Allows user to type in Comments or make notes

**23**  
**Delete**  
Clears inputs or characters in the textbox

**24**  
**Numeric Keypad**  
Used for typing in numbers only

**Menu System**

CAPI menu option is the only “KEY” to access all other actions of the IBES application. The menu interface allows either Supervisor or interviewer to perform certain functions uniquely to their roles as

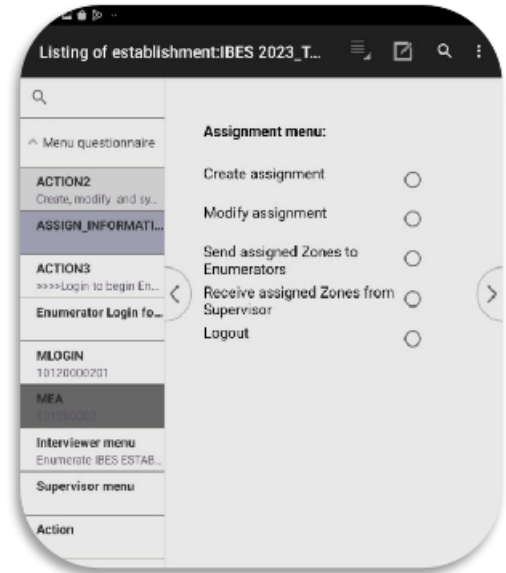
field officers. The Supervisor and Enumerator logs in with their IDs to access the Application Menu. An example of a supervisors' and Enumerators' login ID are 010120000100 and 010120000101

The IBES CAPI Application is designed to have three different Menu System.

### 1. Main Menu (Landing Page)

The first menu system is the *main menu* which is also termed as the *landing page*. This menu displays after tapping on the name of the application. It has three different options to perform any actions.

- i. The first option allows the user to have access to the **Assignment Menu (Supervisor menu)**
- ii. The second option at this level of the menu allows the user to **Login** to have access to **Interviewers' menu (Submenu)** of the application
- iii. The third option allows the user to **Logout**



### 2. Assignment Menu

The second menu system is the **Assignment Menu**.

A user will get to this stage after selecting “*Create, Modify and Sync Assignment*” from the main menu (Landing page). This displays the menu that allows the user to perform the following functions;

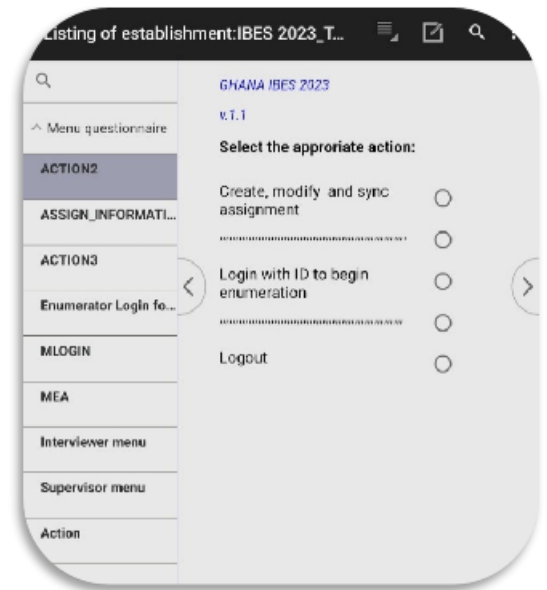
- 1. Create Assignment
- 2. Modify Assignment
- 3. Send Assigned Zones to Enumerators
- 4. Receive assigned Zones from Supervisor
- 5. Logout

**Note:** Both the Supervisor and the Enumerator need to go through this stage before assignment creation will be completed

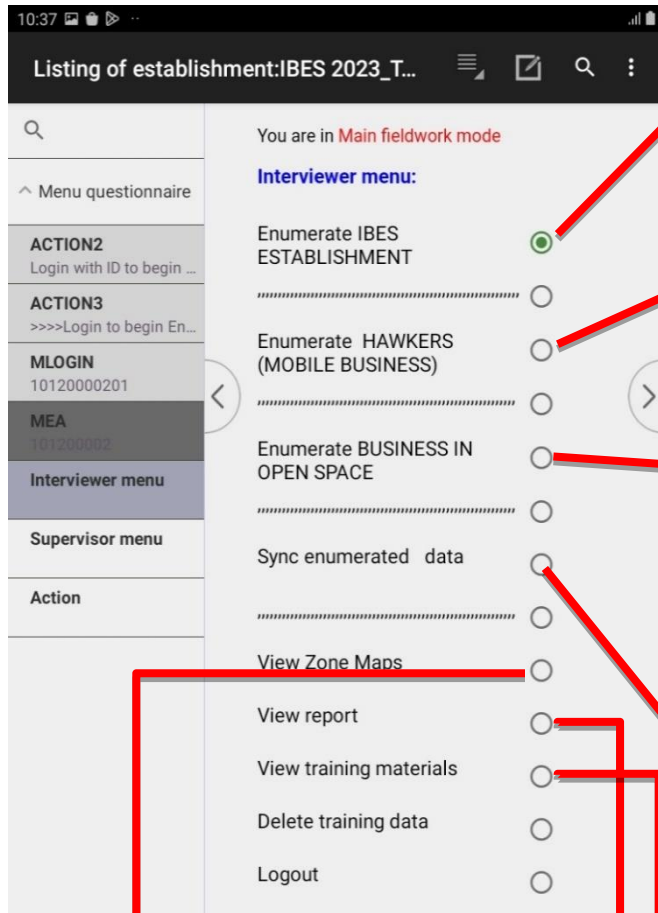
### 3. Interviewers Menu

The Third Menu system is the **Interviewers Menu**.

This displays the menu actions that allows the user to perform the following functions;



**Note:** A user will only get to this stage after login as an Enumerator.

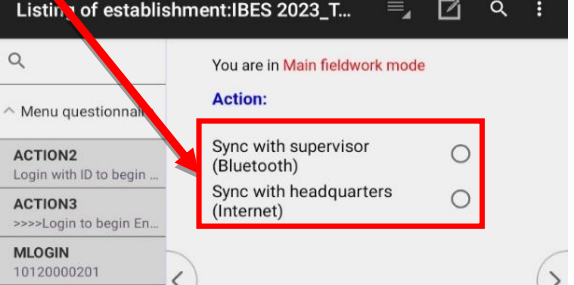


**Enumerate IBES Establishment**  
Tap to select this option to start the

**Enumerate Hawkers (Mobile Business)**

**Enumerate Business in Open Space**  
Tap to select this option to start the

**Sync Enumerated data**  
Allows supervisor to send data central office. There are two actions to be taken under this menu option



**View Zone Maps:** Access all the EZ maps through this option

**View Report:** view the progress of work and ensure all gaps and duplicates are corrected before syncing to the central server (HQ)

**View Training materials:** Training materials can be accessed through this option.

**Delete Training Data:** Trainees are to delete all training and practice data from the device to prepare the tablet for the main field work.. This is to prevent training data mixing up with main field work data.

**Logout:** Interviewers can logout to change ID

### 2023 IBES CAPI Assignment Creation

2023 IBES CAPI Application has been created without having any user in mind, as to who works where. However in order to be able to have access to the application users are required to link their profile (Full name, Status, Login IDs) to the system (CAPI) that will be used for the fieldwork. Assignment process

is one of the important activities that every user (Supervisor and Enumerator) need to go through before having access to any of the questionnaires for enumeration. Creating of Assignment is the act of apportion a Supervisory Area (SA) or Enumeration Zone (EZ) to a Supervisor or an Enumerator before field work start. *Note: Assignments Creation is like creating an account for any application as a user.*

### Stages of Assignment Creation

There two stages of assignment creation in the 2023 IBES CAPI Application:

- The first stage is where the Supervisor for the first time get hold of the Supervisory Area (SA) through the assignment creation.
- The second stage is where the Supervisor assign an Enumeration Zone (EZ) to the Enumerators by Supervisor syncing with the Enumerator after the assignment process on the supervisor's tablet.

### Types of Assignment Creation

In 2023 Business Establishment Survey (IBES) there are three (3) types of assignment creation

1. **Supervisor assignment:** This is a type of an assignment where the Supervisor creates an assignment for him or her self to own the entire Supervisory Enumeration Zones assigned to the team by management.
2. **Primary Enumerator Assignment:** Is the assignment of an Enumeration Zone (EZ) to an original(Primary) Enumerator by the Supervisor. That enumerator will be the *first to receive the EZ.*
3. **Supporting (Secondary) Enumerator Assignment:** Is where the supervisor creates an assignment for second, third or more members in the same EZ that has already been assigned to a primary Enumerator. This action takes place when the primary Enumerator would not able to complete the work on schedule and needs support.

### Requirement for a Successful Assignment creation

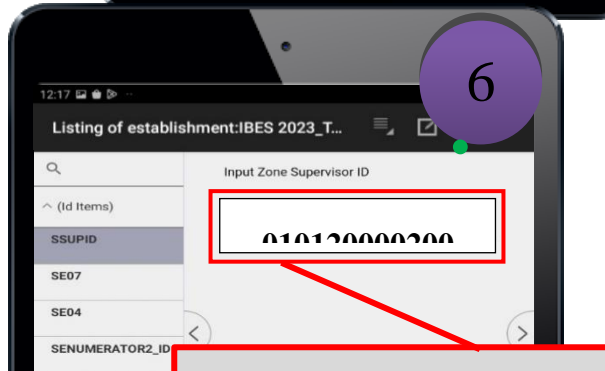
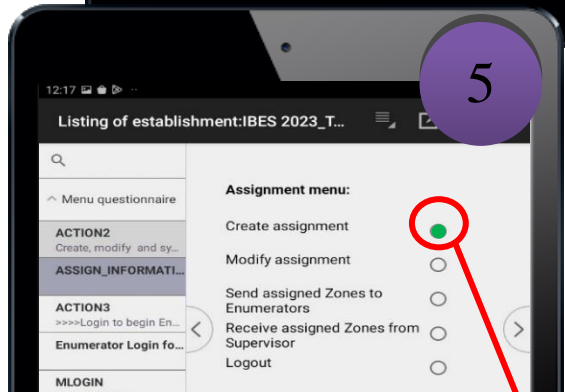
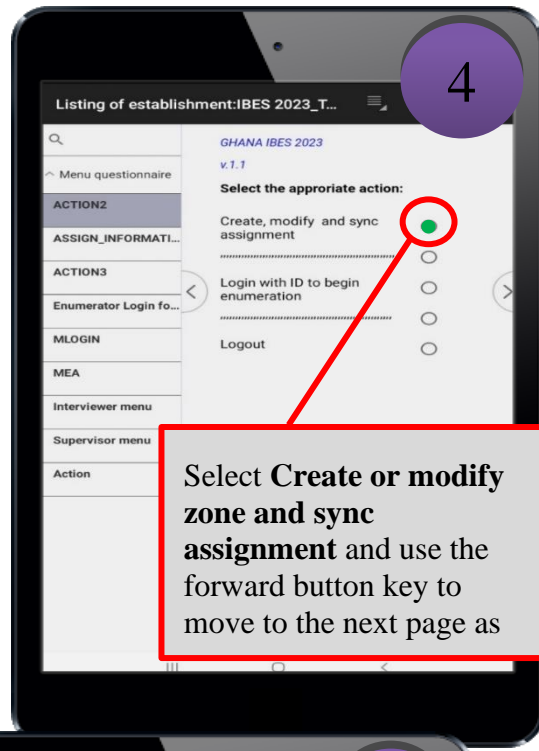
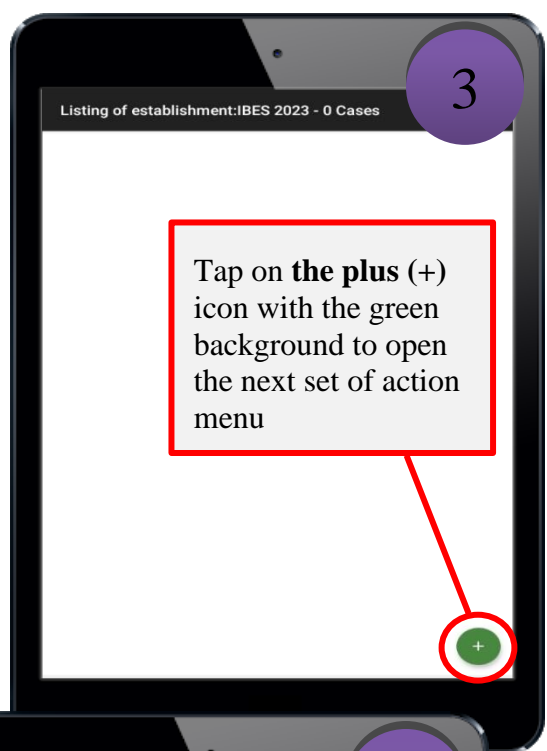
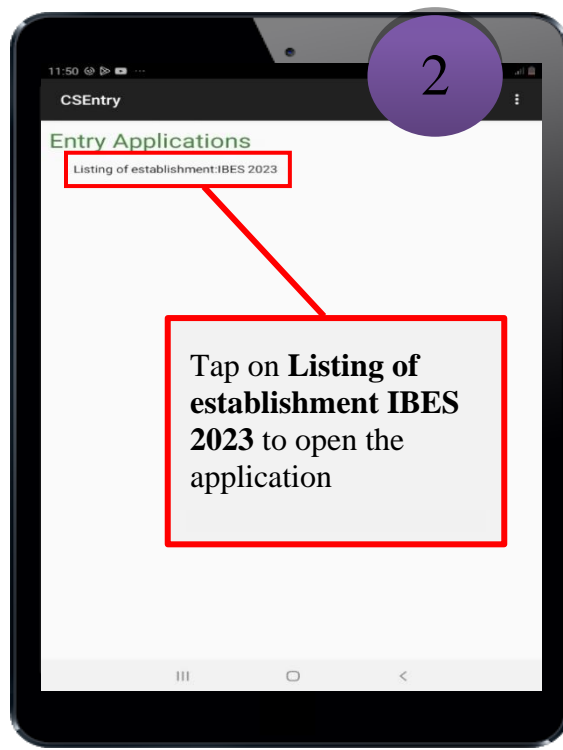
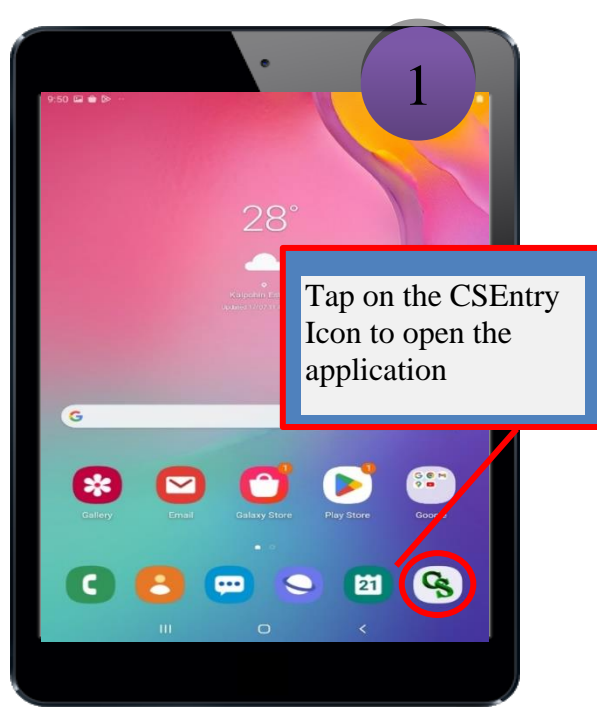
- **Supervisor's Login ID:** In order to have access to the 2023 IBES CAPI application a 12digit login ID is required as a supervisor.
- **Full Name:** Full name **of the users (Supervisor and Enumerator)** is required to be able to identify every field officer by name in the system.
- **Tablet Device ID:** This is a 16 digit alpha numeric code of the tablet that is entered on the supervisors tablet to identify both the Supervisor and Enumerator tablet in the system. Note that, the tablet will automatically pick the Device ID for the Supervisor during the Assignment but the system will require to enter Enumerator's Device ID manually.
- **Contact Number:** The contact number of the field officer is required to be able to uniquely identified by the number.
- **Syncing:** Is the act of transferring of the assigned EZ from the Supervisor's CAPI to the Enumerators CAPI by going through Send and Receive Assignment option in the CAPI use menu. *Note that, with a successful syncing assignment creation is not completed.*

### Practical Steps In Assignment Creation

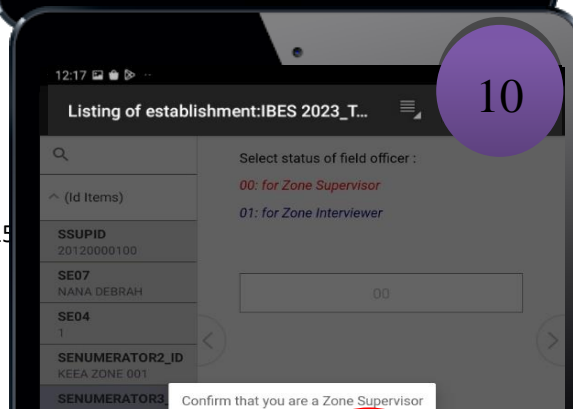
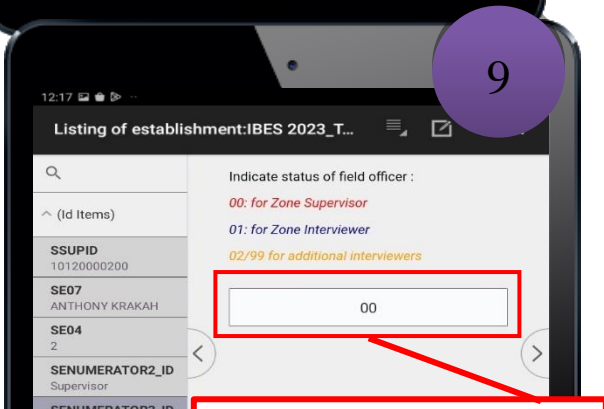
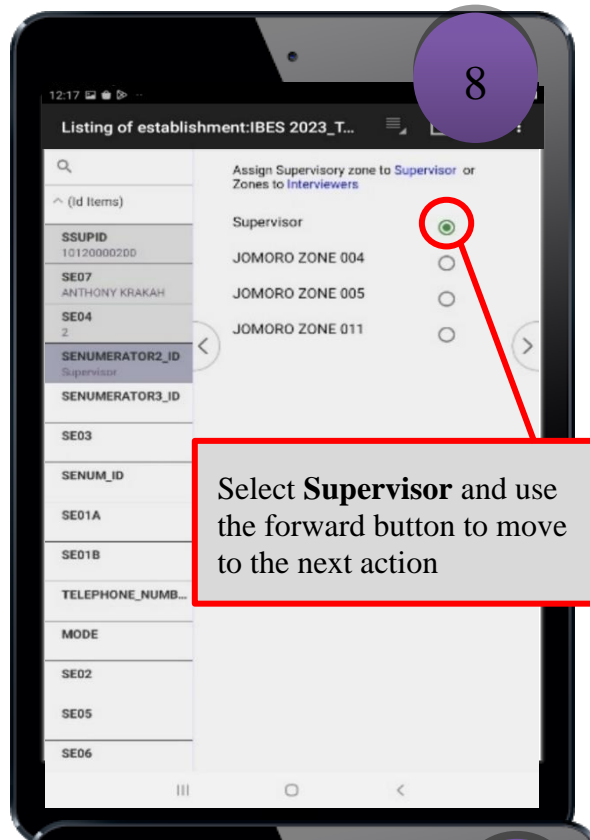
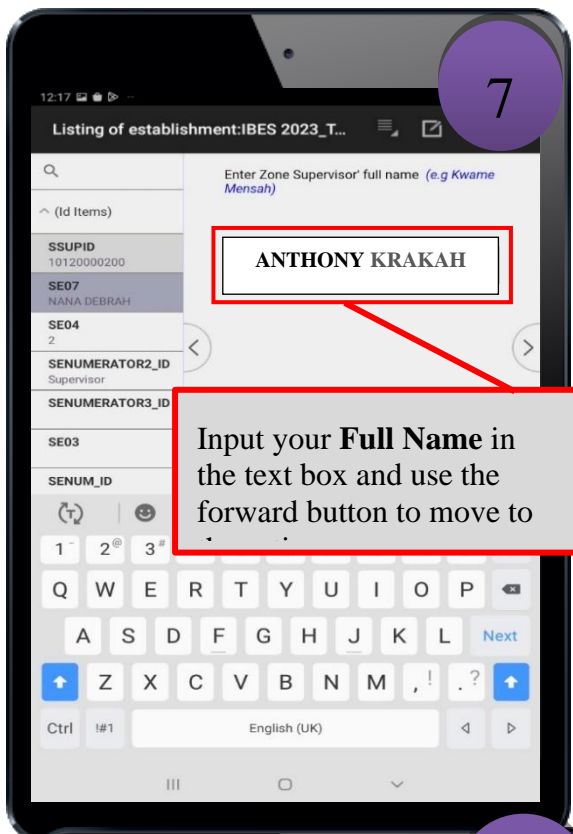
#### 1. Supervisor and Enumerator Assignment

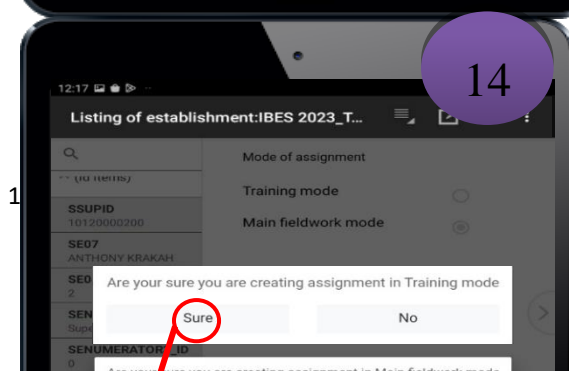
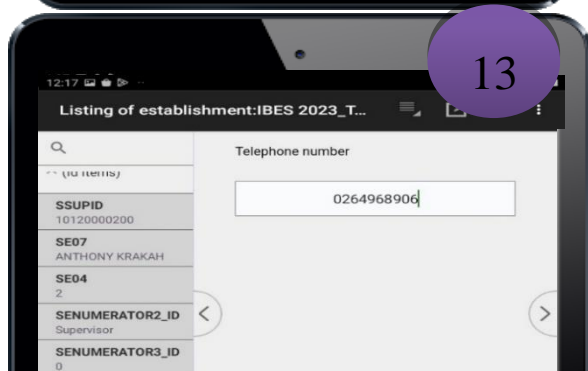
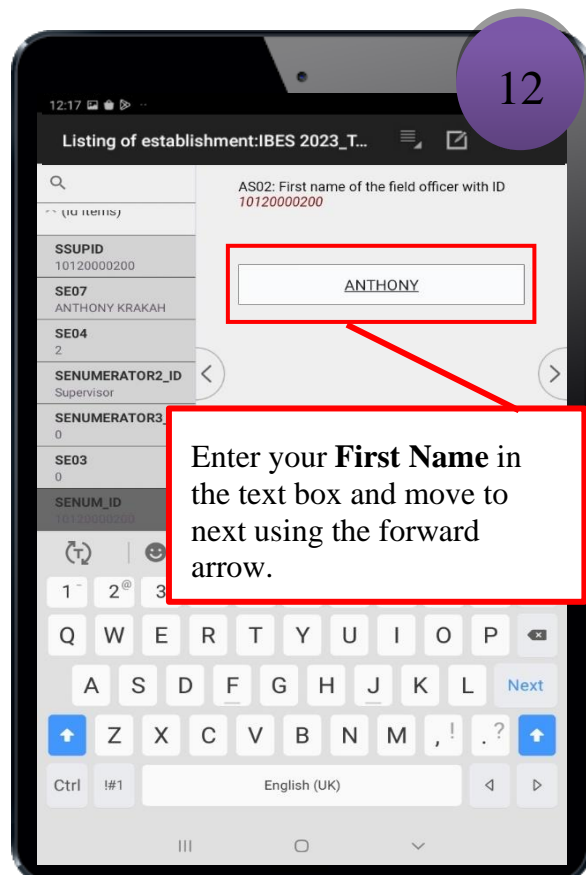
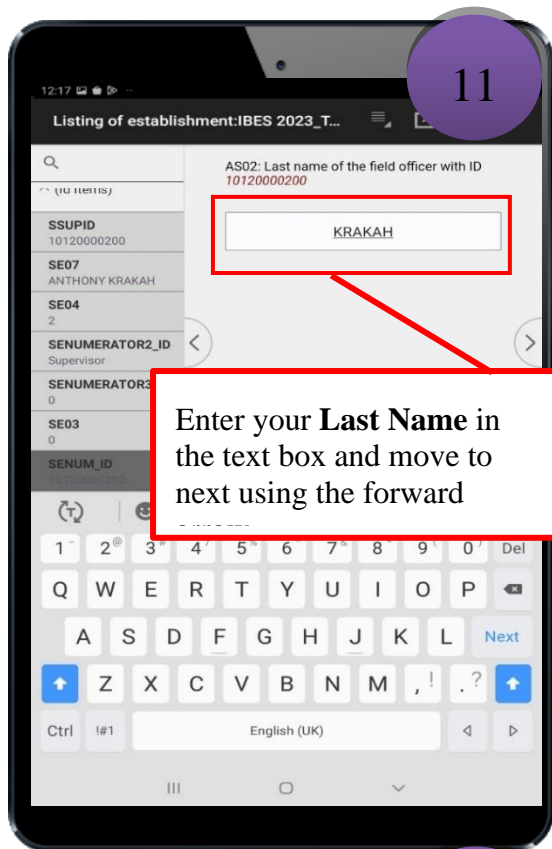


Launch the **CSEntry** Application on the tablet Home Screen to open the 2023 IBES CAPI Application

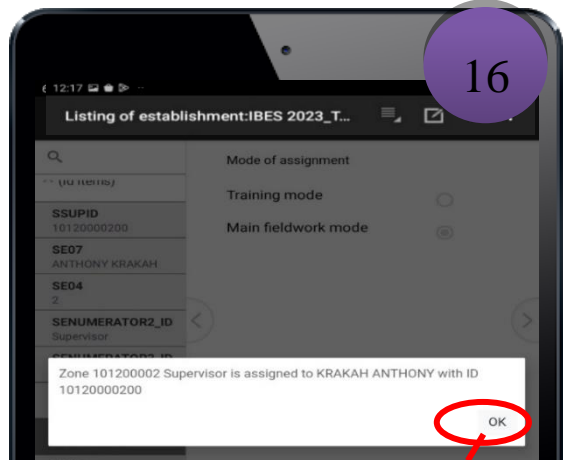
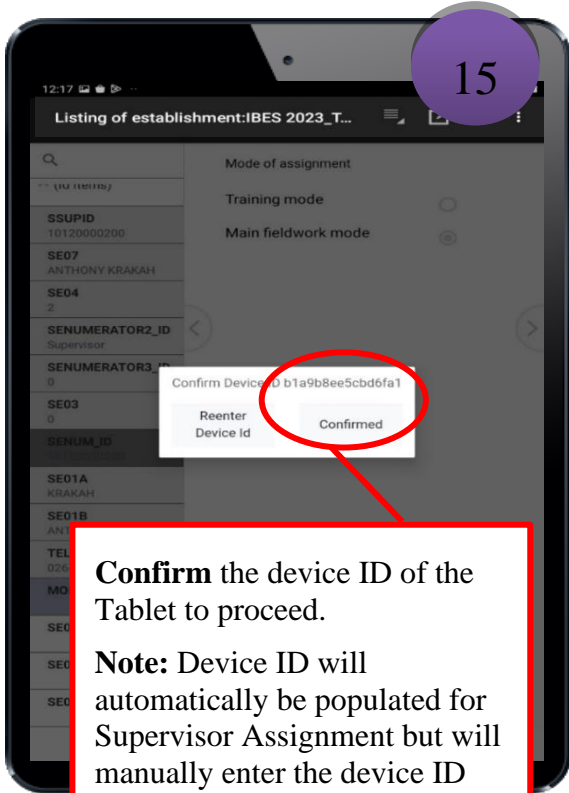








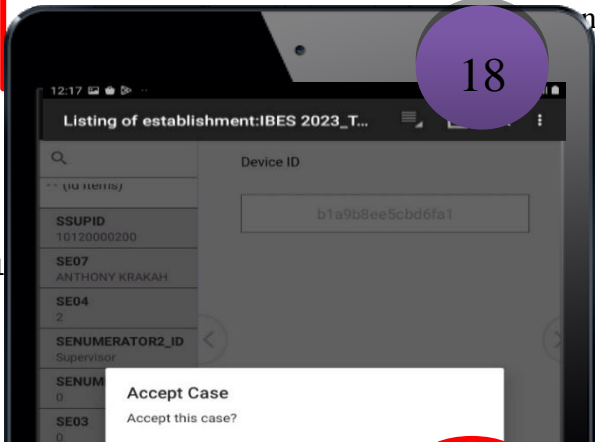
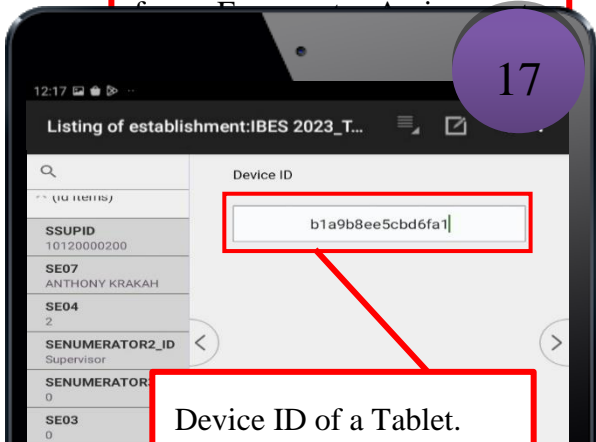
Enter the contact number of the field officer (Enumerator or Supervisor) who is receiving the



Tap on **OK** to complete the Assignment

**Note:** At this stage you are required to confirm for four (4) different things;

1. The Zone for the Assignment
2. The Status: Sup or Enum
3. The Full Name of the field officer
4. The Login ID



Final display of assignment created for Teams working in Jomoro in Western Region

## 2023 IBES Data Transmission - Supervisor and Enumerator

Data transmission is the transfer of data and other resources from one electronic device to another. It involves the **synchronization** of assigned Enumeration Zones, data collected via *Bluetooth* and receiving of an update from HQ via *internet* by supervisor and interviewers.

Synchronisation in this exercise is the exchange (send and receive) of data with Supervisor and Enumerator's tablet within the specific team and with the central server (HQ).



**Note:** Field Officers are required to sync data collected daily to the central server (HQ)

**Slogan:** No Sync...No Sleep (NSNS)

### **Type of data transmission (Synchronization)**

In 2023 IBES Application, there are three types of data transmission or synchronization;

1. Between Supervisor and Interviewer (Peer-to-peer)
2. Between Enumerator to a Central Server (Peer-to-HQ)
3. Between Supervisor to a Central Server (Peer-to-HQ).

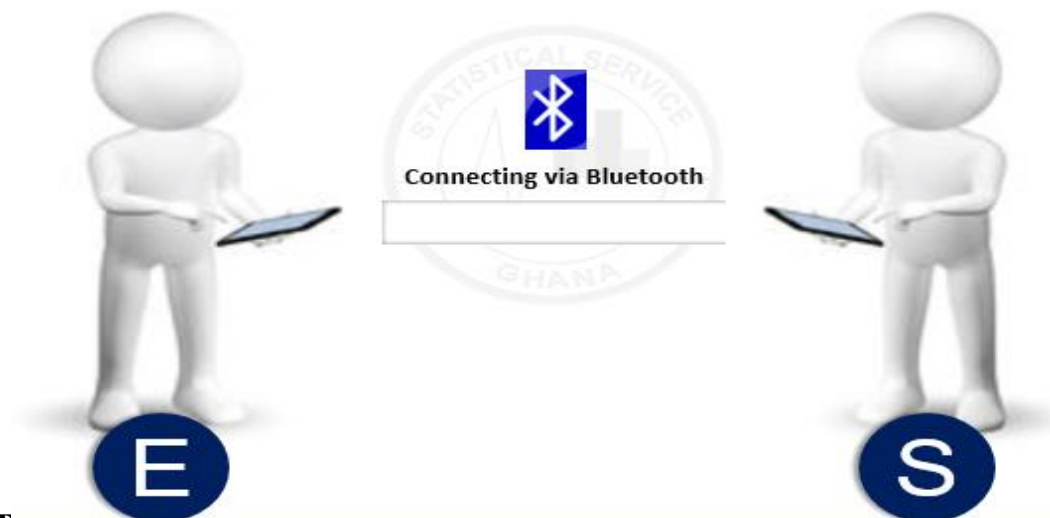
### **Data Transmission - Supervisor and Interviewer (Peer-to-peer)**

This transfer happens between field officers ie. Supervisor and Enumerator whiles on the field. This form of data transfer is done via Bluetooth. Both Supervisor and Enumerators tablets' Bluetooth is automatically activated when sync option is selected by both users at the same time.

Data that is being synchronise includes assigned EZ from Supervisor to Interviewers and the transfer of data from Interviewers to Supervisors.

There are two levels of Supervisor and Interviewer's data transmission or synchronization.

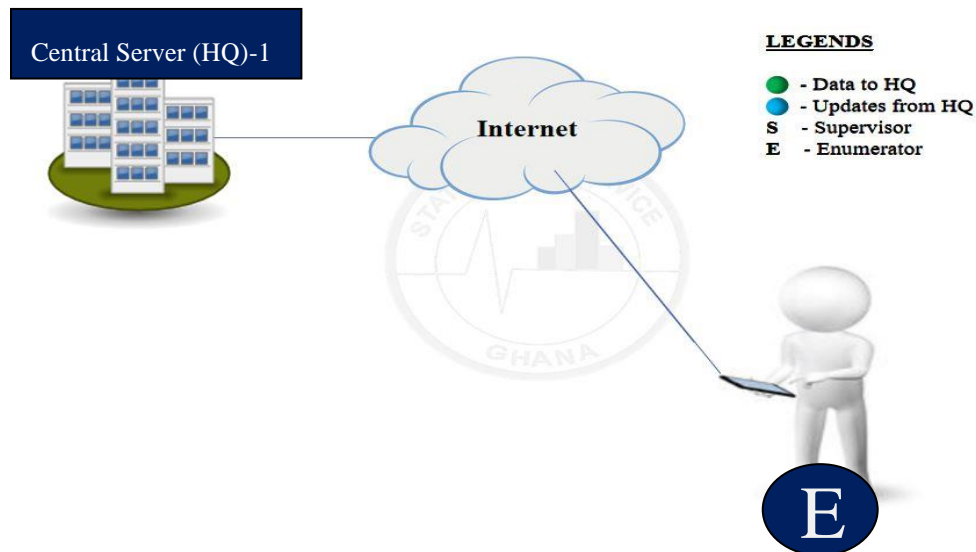
- Level 1: Synchronization during the EZ assignment
- Level 2: Data synchronization during fieldwork (daily synching)



### **Data T**

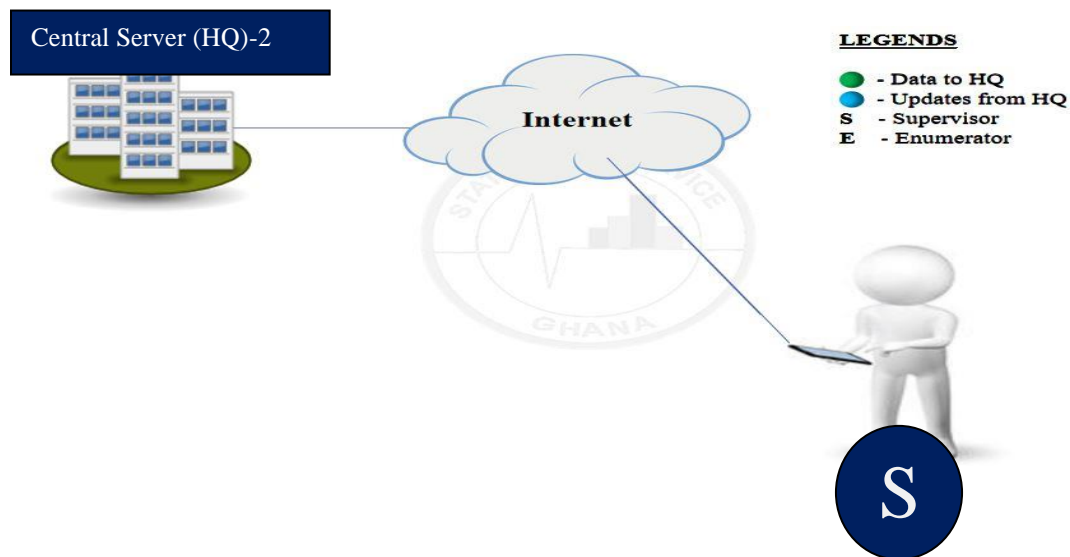
This allows the Enumerator to sync data directly to the central server (HQ) without the traditional way of synching data to HQ through the Supervisor. At this instance internet connectivity is required for a successful synching. Enumerators must sync data to the central server (HQ) each day after close of work

or early morning before work starts. Data syncing can also be done occasionally during the day, after some enumeration have been conducted in order to secure the data collected.



### Data Transmission: Supervisor syncing data to Central Server (HQ)

This allow the Supervisor to sync data from the field to the central server (HQ). Supervisors are required to sync, as soon as data is received from the enumerators. Internet connectivity is required to execute this task by the supervisor.



# **GLOSSARY**

## **REFERENCE NUMBER**

The number on each questionnaire that enables the movement of the questionnaire during field work and data processing to be controlled.

## **COVERAGE**

The units counted or enumerated. The geographical coverage is all of Ghana, and it includes all businesses undertaking some economic activity.

## **DATA PROCESSING**

The stage of census operation that follows data collection. It comprises the following activities: programme writing and testing, editing and coding, data entry, verification, validation and tabulation.

## **DEBRIEFING**

A meeting at the end of a census operation at which all participants give their views on the census operation and make recommendations for improvement in the future.

## **EDITING**

It is the application of checks that identify missing, invalid or inconsistent entries or that point to data records that are potentially in error.

## **EMPLOYEE**

Is a person who enter an agreement, which may be formal or informal, with an establishment to work for the establishment in return for remunerations in cash or<sup>4</sup> in kind.

## **ESTABLISHMENT**

An establishment is a unit engaged in the production of goods or services of the same kind usually at one location. A typical establishment is a single firm or business unit engaging in a single kind of business under a single ownership at a single location.

## **ENUMERATION**

To enumerate is to name one by one as in counting. Enumeration is the process of naming one by one and collecting information from establishments.

## **ENUMERATOR**

An enumerator is a person who counts off one by one. In the 2014 IBES he/she is the economic field worker who administers the questionnaire and carries out other field procedures.

## **FIELD SUMMARY**

The totals of selected information compiled by the enumerator at the end of enumeration

**FINANCIAL YEAR**

The firm's accounting period. The firm's financial accounts relate to a financial year which may not be the calendar year. A common financial year is the 1 April to 31 March of the following year.

**ECONOMIC ACTIVITY**

The particular activity or activities undertaken by the establishment. Examples of economic activity are: Processing meat products, Manufacture of agricultural machinery and equipment. Sale of text books Sale of children dress

**LEARNERS**

Persons undergoing on-the-job training without pay. These include unpaid apprentices.

**QUESTIONNAIRE**

The document on which data is collected. It contains questions and instructions for completion.

**RESPONDENT**

A person who supplies information for the completion of the questionnaire. In a census respondents are mainly accountants, proprietors, and managers etc.

**SCOPE**

Range of view or enquiry. In this census the scope is establishments engaged primarily in any sectors of the economy such as manufacturing, trading, mining and quarrying, construction, hotels, restaurants, etc. Establishments engaged in these activities are in-scope.

**TABLES**

Arrangement of data in columns and rows. The survey statistician sets out the results of the census in tables. The final product of data processing is the printing out of tabulated data. Tables are the basis of further analysis.



## APPENDIX 1: DISTRICT CODES

REGION	DISTRICT NAME	DISTRICT CAPITAL	DISTRICT TYPE	DISTRICT CODE
WESTERN				
WR	Jomoro	Half-Assini	2	0101
WR	Ellembelle	Nkroful	1	0102
WR	Nzema East Municipal	Axim	2	0103
WR	Ahanta West	Agona Nkwanta	2	0104
WR	Effia Kwesimintsim Municipal	Kwesimintsim	2	0105
WR	Sekondi Takoradi Municipal (STMA)		3	0106
WR	Takoradi			01
WR	Sekondi			02
WR	Essikado-Ketan			03
WR	Shama	Shama	1	0107
WR	Wassa East	Daboase	1	0108
WR	Mpohor	Mpohor	1	0109
WR	Tarkwa-Nsuaem Municipal	Tarkwa	2	0110
WR	Prestea/Huni Valley	Bogoso	2	0111
WR	Wassa Amenfi East	Wassa Akropong	2	0112
WR	Wassa Amenfi Central	Manso Amenfi	1	0113
WR	Wassa Amenfi West	Asankragua	2	0114
CENTRAL				
CR	Komenda Edina Eguafo Abirem Municipal	Elmina	2	0201
CR	Cape Coast Metro		3	0202
CR	Cape Coast South			01
CR	Cape Coast North			02
CR	Abura Asebu Kwamankese	Abura-Dunkwa	1	0203
CR	Mfantsiman Municipal	Saltpond	2	0204
CR	Ekumfi	Essakyir	1	0205
CR	Gomoa West	Apam	1	0206
CR	Effutu Municipal	Winneba	2	0207
CR	Gomoa Central	Gomoa	1	0208
CR	Gomoa East	Afransi	1	0209
CR	Awutu Senya East Municipal	Kasoa	2	0210
CR	Awutu Senya West	Breku	1	0211

REGION	DISTRICT NAME	DISTRICT CAPITAL	DISTRICT TYPE	DISTRICT CODE
CR	Agona East	Nsaba	1	0212
CR	Agona West Municipal	Swedru	2	0213
CR	Asikuma Odoben Brakwa	Asikuma	1	0214
CR	Ajumaku Enyan Essiam	Ajumako	1	0215
CR	Assin South	Nsuaem-Kyekyewere	1	0216
CR	Twifo Heman Lower Denkyira	Hemang	1	0217
CR	Twifo Ati Morkwa	Twifo Praso	1	0218
CR	Assin Central Municipal	Assin Fosu	2	0219
CR	Assin North Municipal	Assin Breku	1	0220
CR	Upper Denkyira East Municipal	Dunkwa-On-Offin	2	0221
CR	Upper Denkyira West	Diaso	1	0222
<b>GREATER ACCRA</b>				
GAR	Ga South	Ngleshie Amanfro	2	0301
GAR	Weija Gbawe Municipal	Weija	2	0302
GAR	Ga Central Municipal	Sowutuom	2	0303
GAR	Ablekuma North	Darkuman	2	0304
GAR	Ablekuma West Municipal	Dansoman	2	0305
GAR	Ablekuma Central	Lartebiokorshie	2	0306
GAR	Accra Metropolitan Assembly (AMA)		3	0307
GAR	Ablekuma South			01
GAR	Ashiedu Keteke			02
GAR	Okai Koi South			03
GAR	Korle Klotey	Korle Klotey	2	0308
GAR	Ayawaso Central	Kokomlemle	2	0309
GAR	Ayawaso East Municipal	Nima	2	0310
GAR	Ayawaso North Municipal	Accra New Town	2	0311
GAR	La Dadekotopon Municipal	La	2	0312
GAR	Ledzokuku	Teshie	2	0313
GAR	Krowor	Nungua	2	0314
GAR	Adentan Municipal	Adentan	2	0315
GAR	Ayawaso West Municipal	Dzorwulu	2	0316
GAR	Okai Koi North	Tesano	2	0317
GAR	Ga North	Ofankor	2	0318
GAR	Ga West	Amasaman	2	0319
GAR	Ga East	Abokobi	2	0320

REGION	DISTRICT NAME	DISTRICT CAPITAL	DISTRICT TYPE	DISTRICT CODE
GAR	La Nkwantanan-Madina Municipal	Madina	2	0321
GAR	Kpone Katamanso	Kpone	2	0322
GAR	Ashaiman	Ashaiman	2	0323
GAR	Tema West	Tema Community 18	2	0324
GAR	Tema Municipal Assembly (TMA)		3	0325
	Tema East			01
GAR	Tema Central			02
GAR	Ningo Prampram	Prampram	1	0326
GAR	Shai Osudoku	Dodowa	1	0327
GAR	Ada West	Sege	1	0328
GAR	Ada East	Ada-Foah	1	0329
VOLTA				
VR	South Tongu	Sogakope	1	0401
VR	Anloga	Anloga	1	0402
VR	Keta Municipal	Keta	2	0403
VR	Ketu South	Denu	2	0404
VR	Ketu North	Dzodze	2	0405
VR	Akatsi North	Ave Dakpa	1	0406
VR	Akatsi South	Akatsi	1	0407
VR	Central Tongu	Adidome	1	0408
VR	North Tongu	Battor Dugame	1	0409
VR	Ho West	Dzolokpuita	1	0410
VR	Adaklu	Adaklu Waya	1	0411
VR	Agortime-Ziope	Agortime-Kpetoe	1	0412
VR	Ho Municipal	Ho	2	0413
VR	South Dayi	Kpeve	1	0414
VR	Afadzato South	Ve Golokwati	1	0415
VR	North Dayi	Amfoega	1	0416
VR	Kpando Municipal	Kpando	2	0417
VR	Hohoe Municipal	Hohoe	2	0418
EASTERN				
ER	Birim South	Akim Swedru	1	0501
ER	Birim Central Municipal	Akim Oda	2	0502
ER	Achiase	Achiase	1	0503
ER	Asene Manso Akroso	Manso	1	0504

<b>REGION</b>	<b>DISTRICT NAME</b>	<b>DISTRICT CAPITAL</b>	<b>DISTRICT TYPE</b>	<b>DISTRICT CODE</b>
ER	West Akim Municipal	Asamankese	2	0505
ER	Upper West Akim	Adeiso	1	0506
ER	Ayensuano	Coaltar	1	0507
ER	Nsawam Adoagyiri Municipal	Nsawam	2	0508
ER	Akwapim South	Aburi	1	0509
ER	Akwapim North Municipal	Akropong Akwapim	2	0510
ER	Okere	Adukrom	1	0511
ER	New Juaben South Municipal	Kofofidua	2	0512
ER	New Juaben North	Effiduase	2	0513
ER	Suhum Municipal	Suhum	2	0514
ER	Abuakwa North	Kukurantumi	2	0515
ER	Abuakwa South	Kibi	2	0516
ER	Denkyembuor	Akwatia	1	0517
ER	Akyemansa	Ofoase	1	0518
ER	Kwaebibirem	Kade	2	0519
ER	Birim North	New Abirem	1	0520
ER	Atiwa West	Kwabeng	1	0521
ER	Atiwa East	Anyinam	1	0522
ER	Fanteakwa South	Osino	1	0523
ER	Yilo Krobo Municipal	Somanya	2	0524
ER	Lower Manya Krobo Municipal	Odumasi-Krobo	2	0525
ER	Asuogyaman	Atimpoku	1	0526
ER	Upper Manya Krobo	Asesewa	1	0527
ER	Fanteakwa North	Begoro	1	0528
ER	Kwahu South	Mpraeso	1	0529
ER	Kwahu West Municipal	Nkawkaw	2	0530
ER	Kwahu East	Abetifi	1	0531
ER	Kwahu Afram Plains South	Tease	1	0532
ER	Kwahu Afram Plains North	Donkorkrom	1	0533
<b>ASHANTI</b>				
AR	Amansie South District	Manso Adubia	1	0601
AR	Amansie Central	Jacobu	1	0602
AR	Akrofuom District	Akrofuom	1	0603
AR	Adansi South	New Edubiase	1	0604
AR	Adansi Asokwa District	Adansi Asokwa	1	0605
AR	Obuasi East District	Tutuka	1	0606
AR	Obuasi Municipal	Obuasi	2	0607

REGION	DISTRICT NAME	DISTRICT CAPITAL	DISTRICT TYPE	DISTRICT CODE
AR	Adansi North	Fomena	1	0608
AR	Bekwai Municipal	Bekwai	2	0609
AR	Amansie West	Manso Nkwanta	1	0610
AR	Atwima Kwanwoma	Foase	1	0611
AR	Bosomtwe	Kuntanase	1	0612
AR	Bosome Freho	Asiwa	1	0613
AR	Asante Akim Central Municipal	Konongo	2	0614
AR	Asante Akim South	Juaso	2	0615
AR	Asante Akim North	Agogo	1	0616
AR	Sekyere Kumawu	Kumawu	1	0617
AR	Sekyere East	Effiduase	1	0618
AR	Juaben Municipal	Juaben	2	0619
AR	Ejisu Juaben Municipal	Ejisu	2	0620
AR	Oforikrom Municipal	Oforikrom	2	0621
AR	Asokwa Municipal	Asokwa	2	0622
AR	Kumasi Metropolitan Assembly (KMA)		3	0623
AR	Nhyiaeso			01
AR	Subin			02
AR	Manhyia South			03
AR	Manhyia North			04
AR	Bantama			05
AR	Kwadaso Municipal	Kwadaso	2	0624
AR	Suame Municipal	Suame	2	0625
AR	Old Tafo Municipal	Old Tafo	2	0626
AR	Asokore Mampong Municipal	Asokore	2	0627
AR	Kwabre East	Mampong	1	0628
AR	Afigya Kwabre South	Kodie	1	0629
AR	Atwima Nwabiagya North District	Barekese	1	0630
AR	Atwima Nwabiagya South	Nkawie Kuma	2	0631
AR	Atwima Mponua	Nyinahin	1	0632
AR	Ahafo Ano South West	Mankranso	1	0633
AR	Ahafo Ano North	Tepa	1	0634
AR	Ahafo Ano South East District	Adugyama	1	0635
AR	Offinso North	Akomadan	1	0636
AR	Offinso Municipal	Offinso	2	0637
AR	Afigya Kwabre North District	Boamang	1	0638

REGION	DISTRICT NAME	DISTRICT CAPITAL	DISTRICT TYPE	DISTRICT CODE
AR	Sekyere South	Agona	1	0639
AR	Mampong Municipal	Mampong	2	0640
AR	Ejura Sekyedumase Municipal	Ejura	2	0641
AR	Sekyere Central	Nsuta	1	0642
AR	Sekyere Afram Plains	Drobonso	1	0643
<b>WESTERN NORTH</b>				
WNR	Aowin	Enchi	2	0701
WNR	Sefwi Akontombra	Akontombra	1	0702
WNR	Suaman	Dadieso	1	0703
WNR	Bodi	Bodie	1	0704
WNR	Sefwi Wiawso Municipal	Wiawso	1	0705
WNR	Sefwi Bibiani Ahwiaso Bekwai	Bibiani	2	0706
WNR	Juaboso	Juaboso	1	0707
WNR	Bia West	Essam-Debiso	1	0708
WNR	Bia East	Adabokrom	1	0709
<b>AHAFO</b>				
AHR	Asunafo South	Kukuom	1	0801
AHR	Asunafo North Municipal	Goaso	2	0802
AHR	Asutifi South	Hwidiem	1	0803
AHR	Asutifi North	Kenyasi	1	0804
AHR	Tano North	Duayaw Nkwanta	2	0805
AHR	Tano South	Bechem	2	0806
<b>BONO</b>				
BR	Dormaa West	Nkran Nkwanta	1	0901
BR	Dormaa Central Municipal	Dormaa Ahenkro	2	0902
BR	Dormaa East	Wamfie	1	0903
BR	Sunyani Municipal	Sunyani	2	0904
BR	Sunyani West	Odumasi	1	0905
BR	Berekum East Municipal	Berekum	2	0906
BR	Berekum West District	Jinijini	1	0907
BR	Jaman South	Drobo	1	0908
BR	Jaman North	Sampa	1	0909
BR	Tain	Nsawkaw	1	0910
BR	Wenchi Municipal	Wenchi	2	0911
BR	Banda	Banda Ahenkro	1	0912
<b>BONO EAST</b>				
BER	Nkoranza South Municipal	Nkoranza	2	1001

REGION	DISTRICT NAME	DISTRICT CAPITAL	DISTRICT TYPE	DISTRICT CODE
BER	Techiman Municipal	Techiman	2	1002
BER	Nkoranza North	Busunya	1	1003
BER	Techiman North	Tuobodom	1	1004
BER	Atebubu Amantin	Atebubu	2	1005
BER	Sene West	Kwame Danso	1	1006
BER	Sene East	Kajaji	1	1007
BER	Pru West District	Prang	1	1008
BER	Pru East District	Yeji	1	1009
BER	Kintampo South	Jema	1	1010
BER	Kintampo North Municipal	Kintampo	2	1011
OTI				
OR	Biakoye	Nkonya-Ahenkro	1	1101
OR	Jasikan	Jasikan	1	1102
OR	Kadjebi	Kadjebi	1	1103
OR	Krachi East	Dambai	2	1104
OR	Krachi West	Kete-Krachi	1	1105
OR	Krachi Nchumuru	Chinderi	1	1106
OR	Nkwanta South	Nkwanta	2	1107
OR	Nkwanta North	Kpassa	1	1108
<b>NORTHERN</b>				
NR	Kpandai District	Kpandai	1	1201
NR	Nanumba South District	Wulensi	1	1202
NR	Nanumba North Municipal	Bimbilla	2	1203
NR	Zabzugu District	Zabzugu	1	1204
NR	Tatale/Sanguli District	Tatale	1	1205
NR	Saboba District	Saboba	1	1206
NR	Yendi Municipal	Yendi	2	1207
NR	Mion District	Sang	1	1208
NR	Nanton District	Nanton	1	1209
NR	Tamale Metropolitan Assembly		3	1210
NR	Tamale South			01
NR	Tamale Central			02
NR	Sagnarigu Municipal	Sagnarigu	2	1211
NR	Tolon District	Tolon	1	1212
NR	Kumbungu District	Kumbungu	1	1213
NR	Savelugu Municipal	Savelugu	2	1214
NR	Karaga District	Karaga	1	1215
NR	Gushegu Municipal	Gushegu	2	1216

REGION	DISTRICT NAME	DISTRICT CAPITAL	DISTRICT TYPE	DISTRICT CODE
<b>SAVANNAH</b>				
SR	Bole District	Bole	1	1301
SR	Sawla-Tuna-Kalba District	Sawla	1	1302
SR	North Gonja District	Daboya	1	1303
SR	West Gonja District	Damango	1	1304
SR	Central Gonja District	Buipe	1	1305
SR	East Gonja Municipal	Salaga	2	1306
SR	North East Gonja	Kpalbe	1	1307
<b>NORTH EAST</b>				
NER	Mamprugu Moagduri District	Yagaba	1	1401
NER	West Mamprusi Municipal	Walewale	2	1402
NER	East Mamprusi Municipal	Gambaga	2	1403
NER	Bunkpurugu Nankpanduri District	Bunkpurugu	1	1404
NER	Yunyoo-Nasuan District	Yunyoo	1	1405
NER	Chereponi District	Chereponi	1	1406
<b>UPPER EAST</b>				
UER	Builsa South District	Fumbisi	1	1501
UER	Builsa North Municipal	Sandema	2	1502
UER	Kassena Nankana East Municipal	Navrongo	2	1503
UER	Kassena Nankana West District	Paga	1	1504
UER	Bolgatanga Municipal	Bolgatanga	2	1505
UER	Talensi District	Tongo	1	1506
UER	Bolgatanga East	Zuarugu	1	1507
UER	Bongo District	Bongo	1	1508
UER	Nabdram District	Nangodi	1	1509
UER	Bawku West District	Zebilla	1	1510
UER	Binduri District	Binduri	1	1511
UER	Bawku Municipal	Bawku	2	1512
UER	Garu District	Garu	1	1513
UER	Tempene District	Tempene	1	1514
UER	Pusiga District	Pusiga	1	1515
<b>UPPER WEST</b>				
UWR	Wa West District	Weichiau	1	1601
UWR	Wa East District	Funsi	1	1602
UWR	Wa Municipal	Wa	2	1603
UWR	Nadowli Kaleo District	Nadowli	1	1604
UWR	Daffiama Bussie Issa District	Issa	1	1605
UWR	Sissala East Municipal	Tumu	2	1606



<b>REGION</b>	<b>DISTRICT NAME</b>	<b>DISTRICT CAPITAL</b>	<b>DISTRICT TYPE</b>	<b>DISTRICT CODE</b>
UWR	Sissala West District	Gwollu	1	1607
UWR	Jirapa Municipal	Jirapa	2	1608
UWR	Lawra Municipal	Lawra	2	1609
UWR	Lambussie Karni District	Lambussie	1	1610
UWR	Nandom District	Nandom	1	1611

## APPENDIX 2: COUNTRY CODES

S/N	COUNTRY	CAPITAL	CONTINENT	CODE
1	Cote d'Ivoire	Yamoussoukro	Africa	2001
2	Togo	Lome	Africa	2002
3	Burkina Faso	Ouagadougou	Africa	2003
4	Benin	Porto-Novo	Africa	2004
5	Guinea	Conakry	Africa	2005
6	Nigeria	Abuja	Africa	2006
7	Mali	Bamako	Africa	2007
8	Cameroon	Yaounde	Africa	2008
9	Guinea-Bissau	Bissau	Africa	2009
10	The Gambia	Banjul	Africa	2010
11	Liberia	Monrovia	Africa	2011
12	Niger	Niamey	Africa	2012
13	Senegal	Dakar	Africa	2013
14	Sierra Leone	Freetown	Africa	2014
15	Mauritania	Nouakchott	Africa	2015
16	Algeria	Algiers	Africa	2016
17	Angola	Luanda	Africa	2017
18	Botswana	Gaborone	Africa	2018
19	Burundi	Bujumbura	Africa	2019
20	Cape Verde	Praia	Africa	2020
21	Central African Republic	Bangui	Africa	2021
22	Chad	N'Djamena	Africa	2022
23	Comoros	Moroni	Africa	2023
24	Congo Republic	Brazzaville	Africa	2024
25	Democratic Republic of Congo	Kinshasa	Africa	2025
26	Djibouti	Djibouti	Africa	2026
27	Egypt	Cairo	Africa	2027
28	Equatorial Guinea	Malabo	Africa	2028
29	Eritrea	Asmara	Africa	2029
30	Ethiopia	Addis Ababa	Africa	2030
31	Gabon	Libreville	Africa	2031
32	Kenya	Nairobi	Africa	2032
33	Lesotho	Maseru	Africa	2033
34	Libya	Tripoli	Africa	2034
35	Madagascar	Antananarivo	Africa	2035

S/N	COUNTRY	CAPITAL	CONTINENT	CODE
36	Malawi	Lilongwe	Africa	2036
37	Mauritius	Port Louis	Africa	2037
38	Mayotte	Mamoudzou	Africa	2038
39	Morocco	Rabat	Africa	2039
40	Mozambique	Maputo	Africa	2040
41	Namibia	Windhoek	Africa	2041
42	Reunion	Saint-Denis	Africa	2042
43	Rwanda	Kigali	Africa	2043
44	Saint Helena	Jamestown	Africa	2044
45	Sao Tome and Principe	Sao Tome	Africa	2045
46	Seychelles	Victoria	Africa	2046
47	Somalia	Mogadishu	Africa	2047
48	South Africa	Pretoria (administrative); Cape Town (legislative); Bloemfontein (judiciary)	Africa	2048
49	Sudan	Khartoum	Africa	2049
50	South Sudan	Juba	Africa	2050
51	Swaziland	Mbabane	Africa	2051
52	Tanzania	Dar es Salaam; Dodoma (legislative)	Africa	2052
53	Tunisia	Tunis	Africa	2053
54	Uganda	Kampala	Africa	2054
55	Western Sahara	El Aaiún	Africa	2055
56	Zambia	Lusaka	Africa	2056
57	Zimbabwe	Harare	Africa	2057
58	Afghanistan	Kabul	Asia	3001
59	Armenia	Yerevan	Asia	3002
60	Azerbaijan	Baku	Asia	3003
61	Bahrain	Manama	Asia	3004
62	Bangladesh	Dhaka	Asia	3005
63	Bhutan	Thimphu	Asia	3006
64	Brunei	Bandar Seri Begawan	Asia	3007
65	Burma	Naypyidaw	Asia	3008
66	Cambodia	Phnom Penh	Asia	3009
67	China	Beinjing	Asia	3010
68	Christmas Island	Flying Fish Cove	Asia	3011
69	Cocos (Keeling) Islands	West Island, Cocos (Keeling) Islands	Asia	3012
70	Gaza Strip	Gaza City	Asia	3013
71	Georgia	Tbilisi	Asia	3014
72	Hong Kong	Victoria City	Asia	3015

S/N	COUNTRY	CAPITAL	CONTINENT	CODE
73	India	New Delhi	Asia	3016
74	Indonesia	Jakarta	Asia	3017
75	Iran	Tehran	Asia	3018
76	Iraq	Baghdad	Asia	3019
77	Israel	Jerusalem	Asia	3020
78	Japan	Tokyo	Asia	3021
79	Jordan	Amman	Asia	3022
80	Kazakhstan	Astana	Asia	3023
81	Korea, North	Pyongyang	Asia	3024
82	Korea, South	Seoul	Asia	3025
83	Kuwait	Kuwait City	Asia	3026
84	Kyrgyzstan	Bishkek	Asia	3027
85	Laos	Vientiane	Asia	3028
86	Lebanon	Beirut	Asia	3029
87	Macau	Macau (Macao)	Asia	3030
88	Malaysia	Kuala Lumpur	Asia	3031
89	Maldives	Male	Asia	3032
90	Mongolia	Ulaanbaatar	Asia	3033
91	Nepal	Kathmandu	Asia	3034
92	Oman	Muscat	Asia	3035
93	Pakistan	Islamabad	Asia	3036
94	Paracel Islands	Woody Island	Asia	3037
95	Philippines	Manila	Asia	3038
96	Qatar	Doha	Asia	3039
97	Saudi Arabia	Riyadh	Asia	3040
98	Singapore	Singapore	Asia	3041
99	South Georgia and the South Sandwich Islands	King Edward Point	Asia	3042
100	Sri Lanka	Colombo; Sri Jayewardenepura Kotte (legislative)	Asia	3043
101	Syria	Damascus	Asia	3044
102	Taiwan	Taipei	Asia	3045
103	Tajikistan	Dushanbe	Asia	3046
104	Thailand	Bangkok	Asia	3047
105	Timor-Leste	Dili	Asia	3048
106	Turkey	Ankara	Asia	3049
107	Turkmenistan	Ashgabat	Asia	3050
108	United Arab Emirates	Abu Dhabi	Asia	3051
109	Uzbekistan	Tashkent	Asia	3052

S/N	COUNTRY	CAPITAL	CONTINENT	CODE
110	Vietnam	Hanoi	Asia	3053
111	West Bank	East Jerusalem	Asia	3054
112	Yemen	Sanaa	Asia	3055
113	American Samoa	Pago Pago	Australia/ Oceania	4001
114	Australia	Canberra	Australia/ Oceania	4002
115	Cook Islands	Avarua	Australia/ Oceania	4003
116	Coral Sea Islands	Cato Island	Australia/ Oceania	4004
117	Fiji	Suva	Australia/ Oceania	4005
118	Guam	Hagåtña	Australia/ Oceania	4006
119	Kiribati	Tarawa Atoll	Australia/ Oceania	4007
120	Marshall Islands	Majuro	Australia/ Oceania	4008
121	Micronesia, Federated States of	Palikir	Australia/ Oceania	4009
122	Nauru	government offices in Yaren District	Australia/ Oceania	4010
123	New Caledonia	Nouméa	Australia/ Oceania	4011
124	New Zealand	Wellington	Australia/ Oceania	4012
125	Niue	Alofi	Australia/ Oceania	4013
126	Norfolk Island	Kingston	Australia/ Oceania	4014
127	Northern Mariana Islands	Capitol Hill, Saipan	Australia/ Oceania	4015
128	Palau	Melekeok	Australia/ Oceania	4016
129	Papua New Guinea	Port Moresby	Australia/ Oceania	4017
130	Pitcairn Islands	Adamstown	Australia/ Oceania	4018
131	Solomon Islands	Honiara	Australia/ Oceania	4019
132	Tokelau	Atafu	Australia/ Oceania	4020
133	Tonga	Nuku'alofa	Australia/ Oceania	4021
134	Tuvalu	Vaiaku village, Funafuti province	Australia/ Oceania	4022
135	Vanuatu	Port-Vila	Australia/ Oceania	4023
136	Wallis and Futuna	Mata Utu	Australia/ Oceania	4024
137	Akrotiri	Episkopi Cantonment	Europe	5001
138	Albania	Tirana	Europe	5002
139	Andorra	Andorra la Vella	Europe	5003
140	Austria	Vienna	Europe	5004
141	Belarus	Minsk	Europe	5005
142	Belgium	Brussels	Europe	5006
143	Bosnia and Herzegovina	Sarajevo	Europe	5007
144	British Indian Ocean Territory	Camp Justice	Europe	5008
145	British Virgin Islands	Road Town	Europe	5009
146	Bulgaria	Sofia	Europe	5010
147	Croatia	Zagreb	Europe	5011

S/N	COUNTRY	CAPITAL	CONTINENT	CODE
148	Cyprus	Nicosia	Europe	5012
149	Czech Republic	Prague	Europe	5013
150	Denmark	Copenhagen	Europe	5014
151	Dhekelia	Episkopi	Europe	5015
152	Estonia	Tallinn	Europe	5016
153	Faroe Islands	Tórshavn	Europe	5017
154	Finland	Helsinki	Europe	5018
155	France	Paris	Europe	5019
156	French Guiana	Cayenne	Europe	5020
157	French Polynesia	Papeete	Europe	5021
158	Germany	Berlin	Europe	5022
159	Greece	Athens	Europe	5023
160	Guernsey	Saint Peter Port	Europe	5024
161	Holy See (Vatican City)	Vatican City	Europe	5025
162	Hungary	Budapest	Europe	5026
163	Iceland	Reykjavik	Europe	5027
164	Ireland	Dublin	Europe	5028
165	Isle of Man	Douglas	Europe	5029
166	Italy	Rome	Europe	5030
167	Jan Mayen	Longyearbyen	Europe	5031
168	Jersey	Saint Helier	Europe	5032
169	Latvia	Riga	Europe	5033
170	Liechtenstein	Vaduz	Europe	5034
171	Lithuania	Vilnius	Europe	5035
172	Luxembourg	Luxembourg	Europe	5036
173	Macedonia	Skopje	Europe	5037
174	Malta	Valletta	Europe	5038
175	Moldova	Chisinau	Europe	5039
176	Monaco	Monaco	Europe	5040
177	Netherlands	Amsterdam; The Hague (seat of government)	Europe	5041
178	Netherlands Antilles	Willemstad	Europe	5042
179	Norway	Oslo	Europe	5043
180	Poland	Warsaw	Europe	5044
181	Portugal	Lisbon	Europe	5045
182	Romania	Bucharest	Europe	5046
183	Russia	Moscow	Europe	5047
184	Samoa	Apia	Europe	5048
185	San Marino	San Marino	Europe	5049

S/N	COUNTRY	CAPITAL	CONTINENT	CODE
186	Montenegro	Podgorica	Europe	5050
187	Serbia	Belgrade	Europe	5051
188	Slovakia	Bratislava	Europe	5052
189	Slovenia	Ljubljana	Europe	5053
190	Spain	Madrid	Europe	5054
191	Sweden	Stockholm	Europe	5055
192	Switzerland	Bern	Europe	5056
193	Ukraine	Kyiv	Europe	5057
194	United Kingdom	London	Europe	5058
195	Anguilla	The Valley	North America	6001
196	Antigua and Barbuda	Saint John's	North America	6002
197	Bahamas	Nassau	North America	6003
198	Barbados	Bridgetown	North America	6004
199	Belize	Belmopan	North America	6005
200	Bermuda	Hamilton	North America	6006
201	Canada	Ottawa	North America	6007
202	Cayman Islands	George Town	North America	6008
203	Costa Rica	San Jose	North America	6009
204	Cuba	Havana	North America	6010
205	Dominica	Roseau	North America	6011
206	Dominican Republic	Santo Domingo	North America	6012
207	El Salvador	San Salvador	North America	6013
208	Greenland	Nuuk	North America	6014
209	Grenada	Saint George's	North America	6015
210	Guadeloupe	Basse-Terre	North America	6016
211	Guatemala	Guatemala City	North America	6017
212	Haiti	Port-au-Prince	North America	6018
213	Honduras	Tegucigalpa	North America	6019
214	Jamaica	Kingston	North America	6020
215	Martinique	Fort-de-France	North America	6021
216	Mexico	Mexico City	North America	6022
217	Montserrat	Plymouth	North America	6023
218	Nicaragua	Managua	North America	6024
219	Panama	Panama City	North America	6025
220	Puerto Rico	San Juan	North America	6026
221	Saint Kitts and Nevis	Basseterre	North America	6027
222	Saint Lucia	Castries	North America	6028
223	Saint Pierre and Miquelon	Saint-Pierre	North America	6029
224	Saint Vincent and the Grenadines	Kingstown	North America	6030

S/N	COUNTRY	CAPITAL	CONTINENT	CODE
225	Trinidad and Tobago	Port-of-Spain	North America	6031
226	Turks and Caicos Islands	Cockburn Town	North America	6032
227	United States of America (USA)	Washington, D.C.	North America	6033
228	Argentina	Buenos Aires	South America	7001
229	Aruba	Oranjestad	South America	7002
230	Bolivia	La Paz (administrative); Sucre (judicial)	South America	7003
231	Brazil	Brasilia	South America	7004
232	Chile	Santiago	South America	7005
233	Colombia	Bogota	South America	7006
234	Ecuador	Quito	South America	7007
235	Falkland Islands (Islas Malvinas)	Stanley	South America	7008
236	Guyana	Georgetown	South America	7009
237	Paraguay	Asuncion	South America	7010
238	Peru	Lima	South America	7011
239	Suriname	Paramaribo	South America	7012
240	Uruguay	Montevideo	South America	7013
241	Venezuela	Caracas	South America	7014
242	Statelessness		Stateless	8888

### Appendix 3

EVENT	YEAR	NO. OF YEARS UP TO 2020
King Prempeh removed from Sierra Leone to the Seychelles Island	1900	120
Yaa Asantewaa War	1900	120
Capture of Yaa Asantewaa	1901	119
First World War	1914	106
West African Currency Notes introduced	1918	102
Armistice Day (End of 1st World War)	1918	102
Prince of Wales visited Gold Coast	1925	95
First Aeroplane arrived in Accra	1926	94
Dr. J.E. Kwagyir Aggrey died	1927	93
Takoradi Harbour opened	1928	92
Introduction of Basic Rate	1936	84
Cocoa Hold-up	1938	82
Earthquake	1939	81



Second World War Started	1939	81
Eclipse of the Sun	1947	73
Looting in Various parts of the Country resulting from the Shooting of Sergeant Adjetej and Others	1948	72
Arrest of Six Leaders of the United Gold Coast Convention	1948	72
Founding of CPP by Kwame Nkrumah	1949	71
Positive Action Declared	1950	70
Kwame Nkrumah made Leader of Government Business	1951	69
Kwame Nkrumah made first Prime Minister of the Gold Coast	1952	68
Ghana's Independence Declared	1957	63
R.R. Amponsah and M.K. Apaloo (both opposition members arrested)	1958	62
Preventive Detention Act came into force	1958	62
French Togoland became Independent State	1960	60
Ghana Became a Republic	1960	60
Queen Elizabeth II visited Ghana	1961	59
Murder of former Congo Premier Patrice Lumumba	1961	59
Railway Employees at Takoradi went on strike	1961	59
The Kulungugu bomb explosion	1962	58
Tema Harbour opened	1962	58
Detention of Ako Adjei, Tawiah Adamafio and H. Coffie Crabbe	1962	58
President Nkrumah dismissed Sir Arku Korsah from his Post as Chief Justice	1963	57
Flagstaff House shooting incident involving Ametewee	1964	56
Death of Dr. J.B. Danquah	1965	55
Formal Opening of Akosombo Dam	1965	55
O.A.U Summit Conference in Accra	1965	55
Introduction of Decimal Currency in Ghana (the Old Cedi and Old Pesewa)	1965	55
Military coup d'etat in Nigeria	1966	54
Overthrow of President Nkrumah by the Army and the Police	1966	54
Introduction of the New Cedis and New Pesewas	1967	53
Death of Lieutenant-General E.K. Kotoka	1967	53
Lifting of Ban on Political Activity in Ghana after the 1966 Coup	1969	51
Dr. K.A. Busia made Prime Minister of Ghana	1969	51
Death of Asantehene Nana Sir Osei Agyeman Prempeh II	1970	50
Formation of "Justice Party" by a merger of National Alliance of Liberals and three other Opposition Parties	1970	50
Overthrow of Dr. K.A Busia's Progress Party Government by Colonel I.K. Acheampong	1972	48
Students harvest Sugar Cane at Asutsuare and Komenda	1972	48
Operation Feed Yourself Programme launched	1972	48

Death of Dr. Kwame Nkrumah in Romania	1972	48
Arrival of Dr. Kwame Nkrumah corpse in Ghana from Guinea	1972	48
Ghana broke Diplomatic Relations with Israel	1973	47
Introduction of Right Hand Traffic	1974	46
J.H. Mensah and Two others Arrested on Sedition Charge	1975	45
Creation of Supreme Military Council (SMC 1)	1975	45
Appointment of Dr. Koranteng Addo's Adhoc Committee to gather information on how to implement a Union Government for Ghana	1977	43
Closure of the three Universities following demonstration by the Students against High Prices of Food	1977	43
Strike Action by members of Ghana Medical Association Demanding early re-opening of the closed Universities	1977	43
The Ghana Bar Association called on the SMC 1 Government to handover power to a Presidential Commission Pending a Return to Civilian rule	1977	43
Discovery of Oil In commercial quantities offshore Saltpond by Agric-Petco Ghana Incorporated	1978	42
Referendum on Union Government	1978	42
Strike Action by the Ghana Bar Association	1978	42
Demonstration by University Students again the Union Government concept and the invasion of Legon Campus by Police armoured Cars	1978	42
Formation of People's Movement for Freedom and Justice (PPMFJ) led by K.A. Gbedema, A. A. Afrifa and William Ofori-Atta	1978	42
Banning of PMFJ, the Front for the Prevention of Dictatorship and the Third Force by General Acheampong	1978	42
General Acheampong removed from Office and Lt.-General FWK Akuffo became Chairman of the reconstituted Supreme Military Council (SMC II)	1978	42
Dr. K. A. Busia died in London	1978	42
Appointment of Mr. Justice Amissah and Mrs Gloria Amon-Nikoi as Attorney General and Commissioner for Foreign Affairs respectively	1979	42
Currency Change Exercise	1979	41
An abortive uprising in which Flt. Lt. J.J. Rawlings was Arrested	1979	41
The Revolution that overthrew SMC II lead by J.J. Rawlings as Chairman of the Armed Forces Revolutionary Council (AFRC)	1979	41
Execution of General Acheampong, General Akuffo, Lt. General A.A. Afrifa, Maj. General Utuka and four other Senior Military Officers	1979	41
General Elections	1979	41
Major General Odartey Wellington given a state Burial	1979	41
Demolition of Makola No.1 Market	1979	41

Mr. Justice Akuffo-Addo died and was buried at Akropong	1979	41
Second Round of Presidential Election	1979	41
Handing Over of Power to the People's National Party (PNP) Administration by the AFRC	1979	41
Usher Fort Jail Break By Captain Koda, Captain Okaikoi and Three other military Personnel	1979	41
Pope John Paul II visited Ghana	1980	40
Head of Ahmadiyya Muslim visited Ghana	1980	40
Visit to Ghana by Archbishop of Canterbury (Head of the Anglican church)	1980	40
Commissioning of Ghana's first Satellite earth station at Nkuntunse	1981	39
Overthrow of PNP Administration by J.J. Rawlings as Chairman of PNDC	1981	39
Draught, Bush fires and Hunger (Rawlings chain)	1983	37
Voters Registration Exercise	1987	33
District Level Elections	1989	31
Constitution for 4th Republic	1992	28
Election of JJ Rawlings as President of Ghana	1992	28
An elephant wandered into Navrongo	1993	27
J.J. Rawlings elected President for a second term	1996	24
Visit of the American President (Bill Clinton)	1998	22
Death of Dr. Hilla Limann (in February)	1998	22
Election of President John Agyekum Kufour (Fourth Republic)	2000	20
Second visit of Queen Elizabeth to Ghana	2000	20
Accra Sports Stadium Disaster (on May 9th)	2001	19
First mass cancellation of JSS results in Ghana	2001	19
Ghana Celebrates 50 years of independence from Britain (March)	2007	13
Major off-shore oil discovery announced (in June)	2007	13
Worst floods in over 30 years cause widespread devastation and destroys much of harvest (in September)	2007	13
Election of President John Evans Atta Mills (in December)	2008	12
US President Barack Obama visits Ghana (in July)	2009	11
Death of Professor John Evans Atta Mills (in June)	2012	8
<b>B—REGIONAL EVENTS</b>		
<b>CENTRAL AND WESTERN REGIONS</b>	<b>YEAR</b>	<b>NO. OF YEARS UP TO 2020</b>
First Train from Sekondi arrived at Kumasi	1903	117
Rev. Attoh-Ahuma died	1921	99
Nana Attafua, Omanhene of Akim Kotoku died	1927	93
Govenor Guggisberg died	1930	90
Nana Mbra Ansa died	1933	87

First Section of Sese Oil Palm Plantation started	1934	86
Secondary Schools in Cape Coast went on strike	1948	72
Ahanta/Dixcove Local Council was established	1952	68
Opening of St. Mary's Training College at Apowa	1954	66
Nana Baidoo Bonsoe XIII died	1954	66
Tarkwa and Aboso Mines closed	1956	64
Opening of Busua Pleasure Beach	1963	57
Aboso Glass Factory started operation	1963	57
Nana Hima Dekyi XII (KC), Omanhene of Upper Dixcove died	1963	57
Nana Aboayisa II, chief of Ewusijoe died	1964	56
Enstoolment of Nana Hima Dekyi XIII of Upper Dixcove	1964	56
Plane crash at Phillip Quarcoo Boy's School (on 18th February)	1966	54
Death of Most Rev. John Kodwo Amisshah, Catholic Bishop of Cape Coast	1992	28
Death of Nana Osabarima Kojo Mmrah V, Omanhene of Oguaa Traditional Area	1997	23
<b>GREATER ACCRA, EASTERN AND VOLTA REGIONS</b>	<b>YEAR</b>	<b>NO. OF YEARS UP TO 2020</b>
Execution of Sotordugbe of Aflao Viefe at Viefe	1902	118
Rev. A.W. Clerk of Basel Mission Church died at Aburi	1906	114
Dedication of Larteh Basel Mission Church	1907	113
Bubonic Plague (Akpornabu)	1908	112
Rev. Theophilus Opoku died at Akropong	1913	107
Major Agricultural show took place at Krobo Odumase	1913	107
Motor Car first Climbed Aburi Hill	1913	107
Anum-Peki Political Unrest	1920	100
Korle Bu Hospital Foundation laid	1921	99
Death of Odikro Anakwa of Mamfe	1925	95
Achimota School opened	1927	93
Opening of the joint Provincial Council at Dodowa	1938	82
Governor Allan Burns visited Anum	1946	74
Adomi Bridge (Volta) opened	1957	63
The Golden Jubilee of Nana Kumi VII	1960	60
Cutting of "Aryee Canal" at Kedzi near Keta	1963	57
Major Floods hit Accra causing several deaths and forcing thousands of people to flee from their homes (in June)	2001	19
Area canal commission at Kezi near Keta	2001	19
A boat capsizes on lake Volta reservoir and many passengers feared drowned	2006	14
Ghana Celebrates 50 years of independence from Britain (in March)	2007	13
Major off-shore oil discovery announced (in June)	2007	13

Worst floods in over 30 years cause widespread devastation (in September)	2007	13
<b>ASHANTI AND BRONG AHAFO REGIONS</b>		
First Train Arrived in Kumasi	1903	117
Lt. Lionel Henry Trafford Martin of the 1st Gold Coast Regiment Died at Sampa	1905	115
Basel Missionaries arrived at Sampa	1919	101
King Prempeh I return from exile	1925	95
Ashanti Tekyiman killed their Omanhene Yao Kramo	1927	93
Muslims led by Malam Halidu, left Atebubu and settled at Prang	1927	93
Installation of King Prempeh II	1931	89
Kumasi Fort destroyed accidentally by fire	1932	88
Restoration of Ashanti Confederacy	1935	85
Suma became a member of the Ashanti Confederacy	1935	85
Telephone extension to Berekum	1946	74
Telephone service extended to Domaa-Ahenkro	1948	72
Telephone service extended to Nsoatre	1954	66
Kwame Nkrumah visited Yeji	1955	65
Creation of the Brong-Ahafo Region	1959	61
Foundation of Atebubu Training College laid	1965	55
<b>NORTHERN, NORTH EAST, SAVANNAH, UPPER EAST AND UPPER WEST REGIONS</b>	<b>YEAR</b>	<b>NO. OF YEARS UP TO 2020</b>
First chiefs meeting at Yapei	1923	97
First Aeroplane to Northern Territories	1934	86
Construction of Wa/Tamale road	1940	80
The initial operation of the Gonja Development Company in Damongo (GDC)	1948	72
Gonja Development Company established	1950	70
Chiefs from the Northern Region visited Accra	1956	64
Epidemic known as "Accra Zukogli".	1957	63
Opening of Notre Dam Seminary and Navrongo Secondary School	1960	60
Construction of Tono Irrigation Dam started	1975	45
Shooting of Colonel Felli and Others by Fring Squad	1979	41
Fighting between Saboro and Wusungu	1985	35
Start of Mamprusi/Kusasi War in Bawku	1985	35
Major Dust storm	1985	35
Start of Army worm invasion	1985	35
Establishment of the University for Development Studies	1992	28
Violent ethnic clashes between the Nanumba and Kokomba over land ownership	1994	26
Seven ethnic groups involved in violence in Northern Region sign peace agreement	1994	26

Government imposes curfew in Northern Region as a result of renewed ethnic violence	1995	25
Opening of a University Campus in Navrongo	1995	25
Reconstruction of the Tamale-Paga Road	1997	23
Death of Yaa Naa, Chief of Dagbon (on 26th March)	2002	18

## **APPENDIX 3: OATH OF SECRECY**

**GHANA STATISTICAL SERVICE**



**REPUBLIC OF GHANA**

**THE OATH OF SECRECY**

I, ..... do  
solemnly swear in the Name of the Almighty God that I will faithfully and honestly fulfil my  
duties as a **Field Officer** for the 2021 Population and Housing Census field data collection  
exercise, in conformity with the requirements of the Statistical Service Act, 2019 (Act 1003),  
and that I will not, without authority in writing by the Government Statistician, disclose or  
make known any matter or thing which comes to my knowledge by reason of my  
employment as such, so help me God.

.....

(SIGNATURE)

Sworn before me at ....., this ....., 2021.

.....

.....

(COMMISSIONER FOR OATH)

-----





[www.statsghana.gov.gh](http://www.statsghana.gov.gh)