2021 POPULATION AND HOUSING CENSUS
GHANA

YOU COUNT, GET COUNTED

Ghana 2021 Population and Housing Census
Newsletter

▶ **CENSUS METHODOLOGY**   January - March 2021 | Issue #1

MR. OWUSU KAGYA
HEAD OF CENSUS METHODOLOGY

In the 2021 Population and Housing Census (PHC), Census Methodology is used in both an operational and structural perspective. Operationally, it refers to how the census will be conducted (i.e. who will be enumerated, where the enumeration will be done, the preconditions etc.) and the procedures, duration and reference periods to be followed (enumeration, mapping monitoring etc.). In terms of the implementation structure Census Methodology is to one of the seven workstreams (Census Mapping; Information Technology and Data Processing; Logistics, Finance and Administration; Monitoring and Evaluation; Post Enumeration Survey; and Publicity, Education and Advocacy) of the 2021 PHC.

At the tail end of last year, the Technical workstream was renamed the Census Methodology workstream. The purpose for the renaming was to enhance the operations of the workstream in anticipation of data collection. The Census Methodology workstream lays out the blueprint to guide the processes and outputs of the other workstreams. The revamped Census Methodology workstream is now responsible for coordinating information flow across the

MESSAGE FROM THE HEAD OF CENSUS METHODOLOGY

various workstreams and fostering a more collaborative work environment. These additional functions are necessary as this workstream sets the agenda for the other workstreams by defining the methodology by which the Census will be conducted. The workstream aims to accomplish these by monitoring and synthesizing the strategies and operational decisions taken by all workstreams to ensure they align with the overall Census Methodology and enumeration procedures.

The Census Methodology workstream comprises the Instruments Design, Planning and Analysis; Recruitment and Training; and Field Operations units. The three units have jointly developed three documents that contain all the information needed on Census Methodology and enumeration procedures for census officials and monitors to utilise to achieve complete coverage and quality data collection. These are the Field Officers' Manual, the Trainers' Guide, and the Field Operations Handbook. These documents were developed and revised in consultation with a diverse group of reviewers comprising the National Technical Advisory Committee, Census Coordinating Team, Curriculum Reviewers, Regional Statisticians and Master Trainers.

To date, the Census Methodology workstream has coordinated three trial censuses in accordance with United Nations principles and recommendations to test and finalise the census methodology, instruments, and enumeration procedures for the 2021 PHC.

CENSUS METHODOLOGY - KEY ACTIVITIES

CONDUCTING A DIGITAL CENSUS

Ghana's 2021 PHC is the first fully digital Population and Housing Census to be conducted in the country. It employs increased use of digital technology to enhance data quality and timeliness as recommended by the United Nations. To this end, Ghana 2021 PHC has the following key features to ensure that the census achieves complete coverage and collects accurate data:

1. Use of tablets in deploying Computer Assisted Personal Interviewing (CAPI) application instead of paper questionnaires for data collection. The use of CAPI reduces enumerator error by automating skip patterns, building in consistency checks, and pre-filling certain fields. The use of CAPI also improves data quality and reduces data processing times because data collected can be synced daily to the server for download and analysis by the Data Processing Team.
2. Daily synchronisation of data collected to the server thus eliminating the time spent entering data from paper questions.
3. Capture of the location of structures using Geographic Positioning Systems (GPS) to enable georeferencing of all structures.
4. Use of interactive maps for accurate identification of the boundaries of enumeration areas on the ground to minimise errors.
5. Employment of real-time data quality monitoring to ensure high quality data.

For the 2021 PHC team, going digital means more than just using tablets to administer questionnaires. The digital aspect transcends data collection to other operations such as recruitment and training; procurements and logistics management; publicity, education, and advocacy; and census mapping. Some of the ways the 2021 PHC has gone digital to enhance census implementation include:

1. Online recruitment of trainers and field officers through the web-based Enumerators Bureau platform.
2. Utilization of learning management systems (LMS) for virtual training of Trainers and Data Quality Management Teams.
3. Deployment of a logistics management information system (LMIS).
4. Development of a citizen's platform mobile application to provide up to date information to the public and a forum for the public to engage with members of the census implementing team.
5. Geospatial integration to use other data sources such as satellite imagery and building footprints to overlay on maps to predict workload of enumerators.
6. Use of social media to support publicity, education and advocacy activities.

PRE-ENUMERATION ACTIVITIES

The pre-enumeration phase of the 2021 PHC requires the completion of key activities to prepare for the enumeration phase where the data will be collected. These include the development of strategies, workplans and implementation plans, setting up of committees and workstreams (see Census Newsletter October to December, Vol #1: Know Your Census Team), demarcation of the entire country and critical preparatory activities including training of census officials, provisioning of tablets, finalisation of maps, and stakeholder engagement (see Census Newsletter October to December, Vol #2: Preparatory Activities).
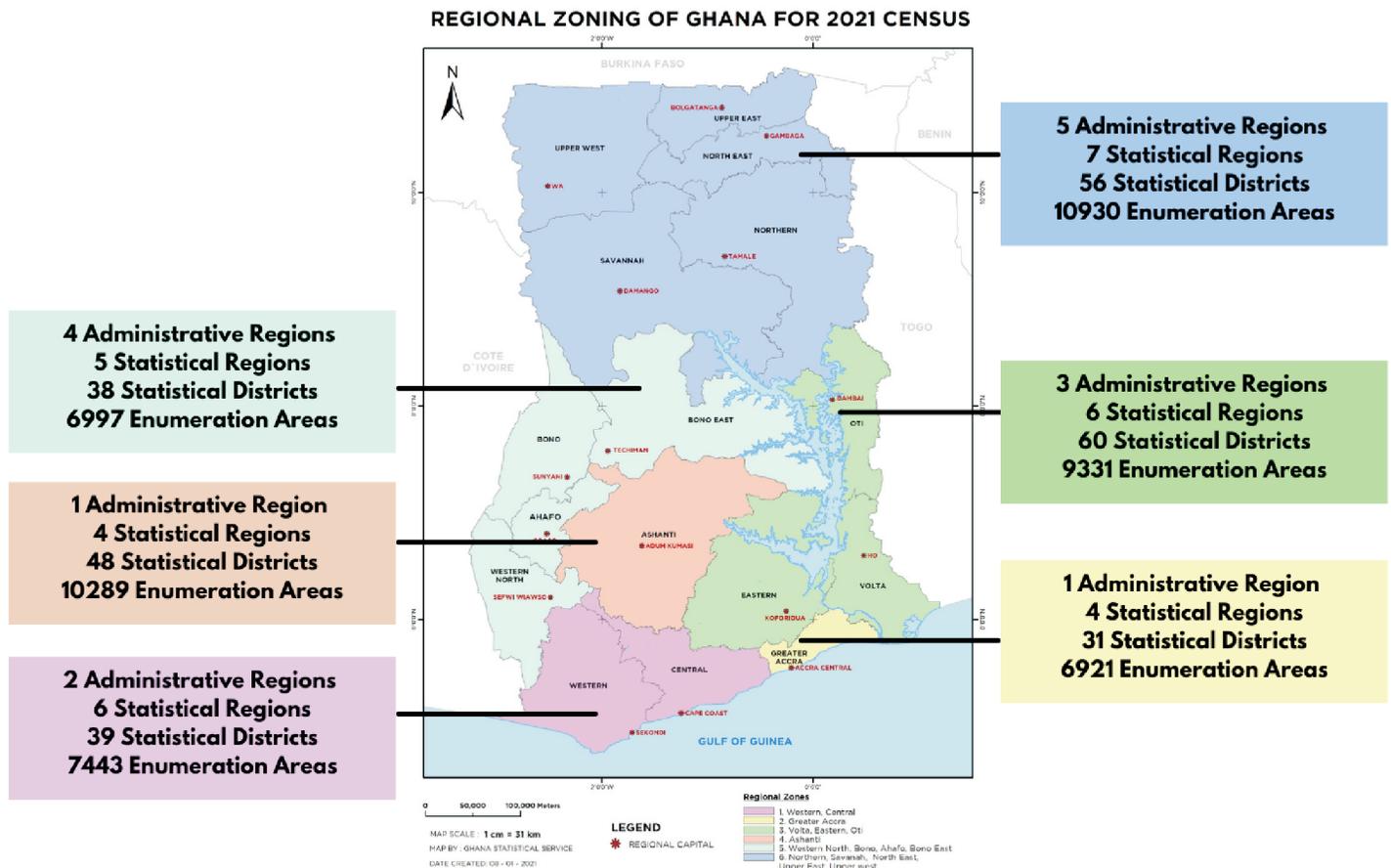
ZONING THE COUNTRY

The census mapping process has demarcated the country into almost 52,000 enumeration areas (EAs) made up of over 131,000 localities. An EA is the smallest geographical area with a well-defined boundary and features which is assigned to one Enumerator to enhance easy canvassing and enumeration during the data collection period.

For the purpose of the 2021 PHC, 272 statistical districts have been designated made up of the country's administrative districts and metropolitan areas. In each statistical district, enumeration areas have been grouped into Supervisory Areas (SAs) for management purposes. An SA comprises three to seven contiguous EAs grouped which is overseen by one Field Supervisor.

ZONING THE COUNTRY

The statistical districts have been further grouped into 32 statistical regions for operational purposes. The statistical regions are meant to divide the larger administrative regions into smaller units that can be overseen by one Regional Field Supervisor. The statistical regions have been further grouped into six (6) zones coordinated by Zonal Field Coordinators.

REGIONAL ZONING OF GHANA FOR 2021 CENSUS

5 Administrative Regions
7 Statistical Regions
56 Statistical Districts
10930 Enumeration Areas

4 Administrative Regions
5 Statistical Regions
38 Statistical Districts
6997 Enumeration Areas

3 Administrative Regions
6 Statistical Regions
60 Statistical Districts
9331 Enumeration Areas

1 Administrative Region
4 Statistical Regions
48 Statistical Districts
10289 Enumeration Areas

1 Administrative Region
4 Statistical Regions
31 Statistical Districts
6921 Enumeration Areas

2 Administrative Regions
6 Statistical Regions
39 Statistical Districts
7443 Enumeration Areas

MAP SCALE : 1 cm = 31 km
MAP BY : GHANA STATISTICAL SERVICE
DATE CREATED: 08 - 01 - 2021

LEGEND
✳ REGIONAL CAPITAL

Regional Zones
1. Western, Central
2. Greater Accra
3. Volta, Eastern, Oti
4. Ashanti
5. Western North, Bono, Ahafo, Bono East
6. Northern, Savannah, North East, Upper East, Upper west

LISTING STRUCTURES

The first seven (7) days of the field data collection will be devoted to the listing of structures. Listing involves locating every structure in the enumeration area and assigning a unique serial number to each structure and collecting some basic information on the structure and its occupants or owners.

The purpose of the listing is to identify every structure and the households within an enumeration area to ensure that all persons and structures are counted during the enumeration period. A successful listing operation is also a prerequisite for complete coverage of the population. During listing the following information will be collected on the structure:

1. Address
2. GPS coordinates
3. Type of structure
4. Level of completion
5. Occupancy
6. Number of persons (male and female) resident within
7. Type of population resident within (household or institution)
8. Use of the structure
9. Presence of outdoor sleepers around the structure
10. Availability of toilet facilities

CENSUS METHODOLOGY - KEY ACTIVITIES

LISTING STRUCTURES

Structures to be listed are completed buildings, unconventional structures (such as containers, kiosks) and uncompleted buildings above window level.

In addition to identifying and numbering structures, the listing exercise will collect information on the number of households and the number of persons living within each structure. This information will be used in tandem with other indicators to predict the workload of enumerators and serve as a benchmark to be used for monitoring data collection during the enumeration phase.

The listing exercise will also collect information on the availability of facilities within each EA. This information will provide data on the number and types of facilities such as educational facilities, health facilities, financial institutions, police stations, public toilets and bathhouses, post office and telecommunication centres, markets etc.

Ahead of the listing exercise, field officers will complete the community entry process to formally announce to community leaders that they are about to commence work in the area. They will then canvass the entire EA to familiarize themselves with the area before numbering all identified structures.

CLASSIFYING THE DIFFERENT POPULATION GROUPS

Enumerators will administer questionnaires to persons based on where they spent Census Night, that is, the reference date for all questions asked in the census questionnaire. The 2021 PHC aims to count everyone, once, and at the right place. For this reason, it is necessary to correctly ascertain where each individual spent census night to avoid duplications and or omissions of certain individuals or groups.

During enumeration, questionnaires will be administered to the following groups:
1. Conventional households (those who live in enclosed residential spaces)
2. Homeless households (those who sleep outdoors in a fixed location each night)
3. Stable (long-term) group quarters or institutional populations (those who spend Census Night in an institution where they are residing temporarily or permanently e.g. boarding houses, hospitals, orphanages, police academies etc.)
4. Unstable (short-term) group quarters/institutional populations (those who spend Census Night in an institution where they are residing temporarily e.g. hospitals, remand centres, prayer camps etc.)
5. Floating populations (persons who sleep outdoors in transient locations, and those travelling or in transit on the Census Night such as at sea, railway stations, and lorry parks etc.)
6. Guests in hotels and guesthouses

Copies of all the questionnaires to be administered are available on the 2021 PHC website: https://census2021.statsghana.gov.gh/

CONDUCTING A DE FACTO POPULATION COUNT

The 2021 PHC will employ a population count known as a de facto population or population present count. With this mode of counting, people are enumerated at the place where they spent the Census Night. This mode minimizes the incidence of duplications or omissions of households or individuals.

Though the 2021 PHC will utilise a de facto count approach for enumeration, a de jure count will also be generated as well. A de jure count is one where individuals are enumerated at their usual place of residence as compared to where they were on census night.

Information collected on the household roster during enumeration includes the usual members (i.e. persons who have lived or plan to live in that household for six months) and visitors present on Census Night. The information on the usual

members whether present or absent on census night makes it possible to count persons by their usual place of residence.

The household roster is the only part of the questionnaire that collects information on the de jure population. The rest of the questionnaire collects information only on persons who are present in the household on the Census Night i.e. the de facto census night population.

ENUMERATING HOUSEHOLDS DURING THE CENSUS

The enumeration period for the 2021 PHC is scheduled to last for 14 days. The enumeration involves the detailed information of data on structures, households, and individuals. The enumeration for the 2021 PHC will collect data on the following:

1. Travel history of household members who have migrated abroad
2. Sociodemographic characteristics (age, sex, education, ethnicity, religion etc.)
3. Literacy and education
4. Economic activity (employment status, occupation, industry)
5. Difficulties in performing daily living activities (seeing, hearing, walking etc.)
6. Ownership and usage of ICT devices
7. Children born to women 12 years or over
8. Deaths of household members within the past 12 months
9. Housing conditions (construction materials of structure; water supply; asset ownership)
10. Sanitation (disposal of solid and liquid waste)
11. Source of water, lighting and cooking fuel

ACHIEVING COMPLETE COVERAGE

Complete coverage means that all localities, structures, households, and persons in the country are enumerated. To achieve complete coverage, the 2021 PHC is implementing several interventions including the use of:

1. Real-time data validation and quality monitoring to check for gaps, overlaps and inconsistencies.
2. The resourcefulness of the listing exercise to generate information on occupied housing units, outdoor sleepers, and population size. This information will be pre-loaded into the enumeration questionnaire by the computer assisted personal interviewing software to ensure all households listed are enumerated.
3. Census complete coverage champions to certify that their localities have been covered.
4. Tailored district field operations strategy to identify context-specific challenges and solutions to ensure complete coverage in each district.
5. Census Call Centre to improve and monitor coverage. The Call Centre will both receive inbound calls from households that have not been listed and/or enumerated and make outbound calls to randomly selected household to confirm whether they have been enumerated.

POST ENUMERATION SURVEY

In accordance with UN Principles and Recommendations, there will be a Post Enumeration Survey (PES) conducted within three months of the census enumeration. The PES is a short survey conducted after census enumeration to determine the accuracy and reliability of the census.

QUESTION AND ANSWER WITH THE HEAD OF INFORMATION TECHNOLOGY (IT) SUPPORT FOR THE 2021 PHC

MR. EMMANUEL NANA DEBRAH, HEAD OF IT SUPPORT

The country has been demarcated into almost 52,000 enumeration areas which one enumerator will be assigned to work in. Given the circumstances that the country does not have a full coverage of access to electricity and Internet, how is IT support going to ensure that each enumerator can successfully collect data on their tablets and sync that data daily?

The 2021 PHC faces unique challenges compared to previous censuses. In the past, one of the major challenges faced was a shortage of questionnaires during enumeration and delays in data processing. This being a digital census, the anticipated challenges will be technological in nature.

Internet connectivity as part of technology plays a key role in the synchronization of data collected during data collection and this process can be disrupted in some parts of Ghana with limited or no access to internet and/or electricity. Enumerators will require access to 3G connectivity or better to sync data. The challenge of rural internet connectivity is related to the availability of electricity. Lack of steady and reliable power is one of the main challenges affecting rural connectivity.

Anticipating some of the limitations that might be encountered in the upcoming census due to the above-mentioned issues, an IT Field Support Team has been established alongside other units to resolve all technological issues that will arise in the field. During data collection, the IT Support is expected to play a "rover" role which in the context of 2021 PHC, means 'a trained expert who moves from one locality to another to resolve all IT related issues within a specific jurisdiction'.

It is anticipated that localities without electricity and/or internet will pose synchronisation challenges to enumerators because both are required. Therefore, appropriate measures have been put in place to overcome these challenges. To facilitate daily synchronization and promote prompt data monitoring and evaluations, supervisors are expected to identify locations with suitable internet connectivity in collaboration with the District IT Officer based on coverage data obtained from the telecommunications within the supervisory area and ground reconnaissance. The purpose of this exercise is to ensure that each enumerator is able to sync data collected at the end of the day's work as is required of them.

However, in areas where there is no cellular coverage, the District IT Officers would meet with enumerators and supervisors every day to copy the data received from the team unto the IT Rover's tablet via Bluetooth and move to a location with strong internet connectivity to sync the data to headquarters on behalf of the team. Lessons from the three trial censuses have been used to shape the current IT support strategy which aims to ensure that technology is used effectively in this census.

ONGOING ACTIVITIES

1. Trial Post Enumeration Survey II
2. Analysis and report writing for Trial Census III
3. Technical working sessions
4. Virtual training of National Trainers
5. Virtual training of Data Quality Management Teams
6. Recruitment of Enumerators and Supervisors
7. Procurement of vehicles, equipment, and supplies
8. Printing of enumeration and supervisory area maps
9. Pre-provisioning of tablets
10. Creation of interactive maps
11. Engagement with stakeholders
12. Finalisation of regional and district field strategies

UPCOMING ACTIVITIES

1. Provisioning of tablets
2. Gazetting of data collection instruments
3. Shortlisting of Enumerators and Supervisors
4. Launch of 100 days to Census Night
5. Information sessions with Regional and District Census Implementation Committees
6. Data Users Symposium
7. Face to face training of National Trainers
8. Virtual training of Regional Trainers

DID YOU KNOW?

Census Night is the reference point in time for the census; enumeration and all questions in the census will relate to the Census Night. This accuracy is necessary to provide a complete and accurate picture about Ghana's population per the 2021 PHC. You will need to take note of the Census Night and remember where you spent that night to answer the questions accurately. All household heads must make note of all the persons that slept in their household on Census Night.

To help make the Census Night memorable, various events will be organised in communities throughout the country to mark the night. Examples of census night events include durbars, floats, and cultural shows.

CENSUS NEWSLETTER SURVEY

We would love your feedback. Please click or copy this link to fill out a brief survey:

🌐 https://forms.gle/L3anA8kTApo1eVLJ7

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» **DECENTRALIZING CENSUS ACTIVITIES**

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