

PILOT CENSUS REPORT
OF THE
2021 MID-TERM CENSUS



Statistics Sierra Leone
(Stats SL)

Tower Hill, Freetown

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1.0 Background

The Government of Sierra Leone, through Statistics Sierra Leone (Stats SL), is conducting the first ever Digital Mid-term Population and Housing Census in 2021. The purpose of the Mid-term Population and Housing Census (MTPHC) is to produce updated information on population and housing, disaggregated at all administrative and locality levels in Sierra Leone.

A Pilot Census which took place in October 2021 was to '**test all the census field and office operations, manuals and CAPI procedures. It also covered all the post-enumeration activities, such as the collection and checking of enumeration materials, the ICT infrastructure and the entire data processing system**'. Specifically, the Pilot Census was aimed at testing the following:

1. The appropriateness of census instruments i.e., questionnaires, Instruction manuals, Coding scheme, etc.;
2. Effectiveness of the cartographic maps for boundary identification during enumeration;
3. Use of Computer Assisted Personal Interviews (CAPI) for enumeration;
4. Appropriateness of the recruitment guidelines;
5. Adequacy of the field staff i.e., qualifications, number required and any other personnel related issues;
6. Training procedures,
7. The enumeration workload and time required to carry out the enumeration;
8. Adequacy of the budgeted resources.

The Pilot Census was conducted in 240 Enumeration Areas (EAs), equivalent to 1% of the finalized EAs. The EAs were purposively selected to reflect the domains of interest namely Locality Types 1, 2 & 3; High density/highly urbanized areas; Islands/areas with large water bodies; border areas; mountainous areas and areas with nomadic population.

2.0 Methodology and Design

The methodology deployed in this pilot phase of the 2021 MTPHC is described under two broad headings: (a) Staff selection, training and deployment, and (b) Enumeration process.

A. Staff selection, Training and Deployment

1. Staff Selection

The Pilot Census required various categories of field staff, similar to those proposed for the main census. These include National Supervisors/Monitors, 5 Regional Coordinators, 21 PAPI Facilitators, 21 CAPI Facilitators, 19 District Census Coordinators, 18 District Publicity Officers, 57 Supervisors and 240 Enumerators.

2. Training of the Pilot Census Field Staff

All field staff involved in the Pilot Census underwent structured training on census instruments and procedures as well as their roles and responsibilities during the Pilot Census enumeration. The trainees were split into **six** different classes trained by the CAPI and PAPI experts. All training was conducted at one venue. During the training, there were strict observance of the Standard Operating Procedures (SOPs) for COVID-19.

Table 1: Roles and Responsibilities during the Training of the Pilot Census Field Staff

Activity	Responsible Person
Oversight of Pilot Training	NCC and all Technical Directors
Technical Issues	Director Data Science and Team
General Administration	HR
Preparation of Training Materials and facilitation	CAPI and PAPI Teams
Transport and Communication	DOD and DCPRD
Meals and Accommodation	Administration
Provision of Logistics	Director Of Operations
Health and Welfare	Human Resources
Overall Rapporteur	District Census Coordinators

In addition, there were other duty bearers who performed specific functions in ensuring proper training and class management. Their respective roles are outlined below:

- 1) **Class Administrator** – responsible for ensuring that the training sessions for the assigned class progressed as per the timetable. He/she is not required to be a trainer but plays the administrative role of ensuring harmony within the training class.

- 2) **Class Head** – official link between the learners and the management of the training. He/she worked closely with the training Manager and the technical team.

- 3) **Logistical Assistant** – Ensure that all the necessary logistics for training in a particular class are available as and when required. Should be in the class all the time.
- 4) **Class Rapporteur** - takes record of the proceedings in the class especially unresolved and contentious issues during the training. He/she was expected to produce a training report at the end of the training. Indeed, the DCCs provided report for each class after the training which have informed our plan for the main enumeration training.

2a. Mode of Training of the Pilot Census Field Staff

The training of field staff utilized a combination of three approaches namely:

- 1) **Formal classroom lectures/presentations** – Learners trained on census data collection procedures as stipulated in the Instructions Manual.

2) Role plays/Mock interviews

- 3) **Field practice** – Learners visited purposely selected households and collected information about the household members, similar to what was to be collected in the Pilot census. This served to provide the trainers with an assessment of the level of comprehension of the census tools and procedures.

NB: The areas for the Field Practice were different from those where the Pilot Census enumeration was to be conducted.

2b. Assignment of Training Roles for the different Pilot Census Classes

Allocation of roles to the different individuals so that:

1. There was fairness/equity in allocation of the workload to the Trainers;
2. Trainers were not overworked i.e. Trainers do not train for too long continuously to the point of getting bored;
3. No class was dominated by a single trainer;

2c. Pilot Census Training Monitors

There were Independent Monitors for the training as planned for the main census. These were from the following institutions.

- 1) Census Technical Committee
- 2) Ministry responsible for Statistics (MOPED)
- 3) Development partners (World Bank, UNFPA, ECA etc)

Stats SL organized a briefing session and provided an online monitoring tool for the Independent Monitors prior for the conduct pilot field work.

3. Deployment of Field Staff

Detailed field deployment is provided in appendix (1) below. The selected allocated EAs for the pilot, pilot staff details and the EA frame for the pilot are all attached.

B. The Enumeration Process

1. The Data Science and the Censuses and GIS divisions assigned an ID to each Tablet, tagging it to an EA.
2. Supervisors were assigned SAs
3. Enumerators were assigned EAs
4. Enumerators updated the list of structures within the locality as well as listing the Households within the Structure

- **Structure No. Format:** MTPHC/2021/001
 - **Household No. Format:** MTPHC/2021/001/01
 - New localities and structures found were added
5. The Supervisor Spot-checked the Household Listing using a sample selected by CAPI
 - Where discrepancies existed, corrective actions were taken;
 6. Enumeration ended after covering the entire locality/localities included in the EA
 - Enumerators were responsible for all population types – Household, Institutional and Floating
 - District census staff and field supervisors supported in the enumeration of Large Institutions and floating populations
 7. Daily, enumerators synched the day's work with Supervisors via Bluetooth
 8. Supervisors transmitted the SA day's work to HQ (Cloud Server).

3.0 Data Analysis and Results

The analysis of the pilot data is in tandem with the template provided by UNFPA and World Bank. Both the template and the generated data is attached in appendix (1) below.

4.0 Key Findings

The key findings of the report are summarized as follows:

1. The average time used to administer the HH questionnaire was so high for the first few days of enumeration, but drastically reduced as enumerators progressed into the two weeks allocated for the data collection.
2. The cartographic maps were helpful for both enumerators and supervisors in identifying EAs and SAs respectively.
3. The data collection application deployed in all the tablets immensely helped in the collection of all field data during the period.
4. The instruction manual was a good reference document that clarified all contentious issues in the field.
5. People were excited and willing to give out information in the field and this cut across for other enumerated areas in the country. As such there was high cooperation and participation from the people which made the work to be concluded in a timely manner in most EAs.

5.0 Challenges

The challenges highlighted below were uniform across enumerated areas and these were encountered by all field staff. They are classified under two broad headings as follows;

a. LOGISTICS

1. The absence of IEC materials especially ID cards at the start of the pilot exercise caused some resistance from households and institutions, but they were accommodated after IDs were provided.

2. There was not sufficient transport for the supervisors, IT incident team, DCCs etc. to move round the districts. This challenge was acute and slowed the pace of the work particularly in some hard-to-reach areas.

3. Awareness raising for the pilot was extremely low and there is need to improve on it.

4. Unlike the cartographic mapping where there were defined administrative roles for the District Census Coordinators, this was not so for the Pilot.

b. DATA COLLECTION APPLICATION AND SYNCHING

1. In very few areas, there were overlap of EA boundaries.

2. The skip pattern in the application for the education and fertility module was not properly defined.

6.0 Conclusion and Lessons Learnt

Generally, the pilot was a huge success and was worth undertaking. Undoubtedly, the CAPI application worked well with minor challenges. The servers were all functional and received real time data as evidenced in the output of the dashboard deployed.

All the challenges highlighted above have been adequately taken care of in preparation for the main enumeration. The following actions have been taken to address the challenges;

1. All the CAPI logical issues have been reviewed and resolved by the consultant and the Data Science team at Stats SL.
2. The manual team finalized the field manual at a two-day retreat, incorporating redress mechanisms for all the challenges including clarification of the reporting structure.
3. The GIS resources have been reviewed and all overlapping EA issues resolved.
4. A proper communication structure has been outlined for creating awareness and publicity around the MTPHC.
5. Stats SL management has also put in place modalities to ensure all field staff are given ID card as they complete training and receive contract letters. Transport allowances will vary depending on where a staff is deployed to work.

Appendix 1a: Selected Allocated Enumeration Area (EA) for Pilot Census

REGION	DISTRICT	CHIEFDOM	SECTION	DOMAIN	1% Proposed EA	EAs Mapped	Allocated EA
SOUTH	Bo	Valunia	Deilenga	Mountain	19	29	9
	Bo	Bo Town	East Ward-Moriba Town-New site	Urban		30	10
						59	19
	Bonthe	Bonthe Urban	Bonthe Town	Island	9	28	7
	Bonthe	Sogbeni	Beyorgboh	Rural		7	2
						35	9
	Moyamba	Timdale	Kambotoke	Rural	13	13	3
	Moyamba	Fakunya	To - Ndambalenga	Urban		36	10
						49	13
	Pujehun	Soro Gbema	Kiazombo	Porous Border	14	7	1
	Pujehun	Panga	Panga	Urban		67	13
						74	14
SOUTHERN REGION						217	55
EAST	Kailahun	Kissi Teng	Kundu	Porous Border	19	6	1
	Kailahun	Luawa	Luawa Foguiya	Urban		176	18
						182	19
	Kenema	Niawa	Mabondor	Rural	29	9	9
	Kenema	Kenema City	Gbo Lambayama A-RTI	Urban		20	20
						29	29
	Kono	Sandor	Sinkongofeh	Mountain	14	14	3
	Kono	Koidu City	Gbense-Moindefeh A	Urban		47	11
						61	14
EASTERN REGION						272	62

Appendix 1a: (Cont'd)

REGION	DISTRICT	CHIEFDOM	SECTION	DOMAIN	1% Proposed EA	EAs Mapped	Allocated EA
NORTH WEST	Kambia	Samu	Korthemoh	Island	9	6	2
	Kambia	Bramaia	Kanku-Bramaia	Porous Border		20	7
						26	9
	Karene	Sanda Magbolontor	Gbaneh-Loko	Rural	6	5	1
	Karene	Sella Limba	Kamakwie	Urban		38	5
						43	6
	Port Loko	Maforki	Makorobolai	Rural	17	7	4
	Port Loko	Bakeh Loko	Kondato	Urban		25	13
						32	17
NORTH WEST REGION						101	32
NORTH EAST	Bombali	Biriwa	Kagbankuna	Mountain	14	10	3
	Bombali	Makeni City	Teko Ward	Urban		36	11
						46	14
	Falaba	Mongo	Mongo I	Normadic	6	16	4
	Falaba	Sulima	Gberia Fotombu	Normadic		8	2
						24	6
	Koinadugu	Kamukeh	Taelia	Mountain	6	12	1
	Koinadugu	Wara Wara Yagala	Zone 3	Urban		71	5
						83	6
	Tonkolili	Dansogoia	Kemedugu	Mountain	14	6	2
	Tonkolili	Kholifa Rowala	Bo Road	Urban		42	12
					48	14	
NORTH EAST REGION						201	40

Appendix 1a: (Cont'd)

REGION	DISTRICT	CHIEFDOM	SECTION	DOMAIN	1% Proposed EA	EAs Mapped	Allocated EA
WESTERN AREA	Western Area Rural	York Rural	York	Rural	22	33	22
	Western Area Urban	East I	Cline Town	Urban	29	44	29
	WESTERN AREA						77
SIERRA LEONE					240	868	240

Appendix 1b:

Enumeration Area Frame for Pilot Census

Appendix 2:

UNFPA and World Bank data analysis template strictly followed – please click on link below

<https://drive.google.com/drive/folders/155DEwKDgyVvxTgASivqPyE8F9vKCUaBy?usp=sharing>

Sierra Leone Mid-term Population and Housing Census 2021 Pilot Census Data Quality Analysis Indicators

Indicator	Value for EA 001	Value for EA 002	Value for EA 003	---	Value for EA 240
District					
Chiefdom					
SA Name					
SA Serial No					
EA Name					
EA Serial No					
Enumerator ID					
Coverage Indicators					
Average Interview time per Enumerator					
Households listed by day					
Households listed on Day 1					
Households listed on Day 2					
Households listed on Day 3					
Proportion of listed structures that are non-residential					
Proportion of residential households which are vacant					
Demographic Indicators					
Population by locality¹					
Locality 1					
Locality 2					
Locality 3					
Sex Ratio					

¹ In case of Type 1 and Type 2 Localities, Row two and Row 3 will be blank.

Appendix 2: Cont'd

Pilot Census Data Quality Analysis Indicators

Indicator	Value for EA 001	Value for EA 002	Value for EA 003	--- --- --- -	Value for EA 240
<i>Population Age Structure</i>					
Proportion of population Under age five					
Proportion of population Under age 15					
Proportion of population aged 15 – 29					
Proportion of Women aged 15 – 49					
Household Size					
Average number of Households per Structure					
Average Household Size					
Average Number of Rooms per Household					
Population Dynamics					
Proportion of women 15+ without a Child					
Mean Number of Children Ever Born by Age of Woman (15 - 49 Years)					
Proportion of Women 15 – 54 with a birth in the last 12 Months					
Proportion of births in the last 12 Months who are dead					
Total Fertility Rate (<i>Number per 1,000 Women</i>)					
Crude Birth 'Rate' (<i>Number per 1,000 Women</i>) by area					
Proportion of Households with a Death in the last 12 Months					
Distribution of Deaths by Age (< 1, 1 - 4, 5 - 14, 15 - 49, 50+)					
Crude Death 'Rate' by area (<i>Number per 1,000 population</i>)					
Proportion of HH deaths that are Maternal Deaths					
Proportion of population (6+) who are Migrants (PoB ≠ Previous Residence)					
Socio-economic Characteristics					
Proportion of Children 6 - 9 enrolled in School					

Indicator	Value for EA 001	Value for EA 002	Value for EA 003	--- --- --- -	Value for EA 240
Proportion of Children 10 - 14 enrolled in School					
Proportion of Children 15 - 19 enrolled in School					
Proportion of Working age Population who are Economically Active					
Population with Disabilities					
Proportion of Total population with a Disability Type – Seeing					
Proportion of Total population with a Disability Type – Hearing					
Proportion of Total population with a Disability Type – Movement					
Proportion of Total population with a Disability Type – Concentration					
Proportion of Total population with a Disability Type - Self Care					
Proportion of Total population with a Disability Type – Communication					
Proportion of Child population with any Disability					
Child Population					
Proportion of Children with a Birth Certificate					
Proportion of Children Under 6 Weeks fully immunised					
Proportion of Children 6 - 10 Weeks fully immunised					
Proportion of Children 10 - 14 Weeks fully immunised					
Proportion of Children 14 Weeks - 9 Months fully immunised					
Proportion of Children 9 Months or Older fully immunised					
Agriculture					
Proportion of households that are engaged in agricultural activities					