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UNITED NATIONS ECONOMIC COMMISSION FOR AFRICA

REPORT ON A MISSION TO LIBERIA
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By

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This report is the sole responsibility of the writer.
It has been submitted to the Department of Technical Co-operation,
United Nations, which may alter or supplement the findings.

Introduction

The mission was undertaken at the request of the Government to advise and assist in the final preparatory activities for the population and housing census of Liberia.

It was a follow-up to a mission which was undertaken in November 1983 during which assistance was given in the preparation of some of the census documents, in particular the Enumerators and Field Supervisors Handbooks and the Training Manual.

A pilot census to test the census questionnaire was conducted in July/August 1983 but at the time of the last mission the completed questionnaires had not been processed. However, after visual scrutiny of the returns and a meeting with the field staff, some areas of difficulty in completing the questionnaire were identified and the necessary revision of the questionnaire was made. It was suggested during that mission that efforts should be made to code the pilot census questionnaires and to use them to test the machine processing plans.

In the course of the mission discussions were held principally with the following persons to whom I wish to express my appreciation and thanks for their assistance and co-operation.

Mr. Emmanuel Gardiner, Minister, Ministry of Planning and Economic Affairs (MPEA) and Census Commissioner

Mrs. Emelia Ward, Deputy Minister (MPEA) and Deputy Census Commissioner

Mr. Philip Gadegbeku, Assistant Minister for Statistics (MPEA)

Mr. Abel Massalee, Census Co-ordinator

Mr. Fole Sherman, Census Field Organizer

Mrs. Dorothy Chea-Johnson, Head Statistical Planning Section, Census Office

Mr. John Howard, Senior Statistical Officer, Census Office

Mr. John Stephen, Administrative Officer, Census Office

Mr. Milton Sirleaf, Census Regional Officer

Mr. Maurison F. Tarlawalli, Census Regional Cartographer

Mr. Ely Gabisi, Publicity Officer, Census Office

Mr. Lawrence Akoi, Statistical Officer, Census Office

Mr. G.K. Greenidge, Resident Representative, UNDP

Mr. R.R. Tripathi, U.N. Census Cartographic Adviser

Mr. Charles Caine, Programme Officer, UNDP.

Field organization

Liberia is administratively divided into 15 counties/territories. Under the counties/territories are 63 districts. For purposes of the census, the country was divided into 5 census regions and a census office established in each. A census region consisted of

a number of counties/territories and each region was under the control of a census regional officer. The regional officer was assisted by a cartographer. Below the regional officers were county/territory inspectors. The inspectors supervised the work of census district supervisors. Under the district supervisors were field supervisors under whom the enumerators worked. The total number of the various categories of field staff was as follows:

Regional Officers	: 5
Cartographers	: 5
County/territory inspectors	:23
District supervisors	:63
Field supervisors	:930
Enumerators	:5000

At the Census Head Office a Field Organizer was appointed. He assisted the local councils sub-committee in establishing census local councils which were expected to assist in census publicity and public education programmes at the sub-national level.

Other duties of the field organizer included the establishment of census regional offices, contacts with other agencies to solicit support for census activities, assisting the General Services Authority (GSA) in the acquisition of vehicles for census work, despatch of field staff and supplies and the control of issue of identity cards to field supervisors and enumerators.

Recruitment and training of field staff

Regional census officers, county/territory census inspectors and district supervisors were recruited and trained in December 1983. The training was conducted in Monrovia.

After that training, county/territory inspectors assisted by district supervisors recruited and trained census field supervisors. The training was organized at census district offices.

The final phase of the training programme for the census field staff was the recruitment and training of about 5,000 enumerators. The recruitment was done by census district supervisors assisted by field supervisors. The enumerators were, as far as possible, recruited from the areas where they were expected to perform their census duties and the training sessions were organized at district headquarters.

In general all candidates for field supervisors or enumerators training were given a screening test and only those who passed the test were selected for training.

The training which covered a period of about nine days comprised lectures, class discussions, mock interviews, field exercises and examinations. The final selection of field supervisors and enumerators was based on the results of the examinations and general performance and behaviour during the training.

A Training Manual was prepared by the Census Head Office for the trainers of field supervisors and enumerators to ensure uniformity in the training programme at the various training centres. My impression was that though the trainers generally followed the guidelines in the Training Manual they did not do so strictly. For instance, during a visit to two training centres in Monrovia I observed that the training time-table in the Manual was not being followed strictly. In particular, it came to my notice that the trainers intended to skip field exercises though provision had been made in the time-table in the Training Manual for two such exercises. The reason given was that the training of enumerators in those centres started later than expected and further there were not enough questionnaires for field exercise. Following my intervention, however, two exercises were arranged during which each trainee completed questionnaires for two households. The completed questionnaires were examined and the errors discussed with the trainees.

Discussions held with some regional officers and district supervisors outside Monrovia area indicated that field exercises formed part of the training in most of the training centres but my impression was that since the training centres did not have enough questionnaires for training, the provision in the Training Manual for trainees to complete questionnaires for ten households in two field exercises was not strictly adhered to.

Cartographic preparations

At the time of the mission the pre-enumeration cartographic work including the production of supervision and enumeration area maps had been completed.

It, however, came to light during the pre-enumeration check of supervision and enumeration areas boundaries after the completion of the field staff training programme that a number of large rural localities were not sub-divided into enumeration areas during the cartographic preparations. In all such cases, the cartographers assigned to the regions as Assistant Regional Officers assisted district officers to undertake the delineation of enumeration areas in the localities concerned. This led to the recruitment of additional enumerators, in some cases, after the completion of the training programme for enumerators.

It was also observed that the preparation of some enumeration area maps was either rushed or the work was not verified. Thus one gets the impression that effective supervision was not maintained. For instance, geographic codes were not accurately recorded on some of the maps and in a number of cases the spelling of names of localities on enumeration area maps were different from what had been recorded on the accompanying list of localities. In fact, in one area I visited, the field staff were finding the maps so confusing that they had discarded them and were in the process of preparing new maps.

It must be pointed out though that considerable pre-enumeration cartographic work was done and despite the few inaccuracies noted above there is now a satisfactory area sampling frame for future statistical enquiries.

During the mission, the United Nations Cartographic Adviser received a cable requesting him to return to his post in India. My impression was that he would not be available for any post-enumeration cartographic work. It is, therefore, suggested that the ECA Regional Adviser in census cartography should visit Liberia as soon as possible to advise and assist the Bureau of Statistics in the revision of the enumeration area maps and the preparation of post-enumeration maps. This will ensure the consolidation of the good work in census cartography which has been done to-date.

Distribution of census documents and supplies

Census documents were assembled by districts and packed in trunks at the Census Head Office. All the materials for each census region were then sent to the regional office where the regional officer was expected to arrange for their despatch to the districts. In some cases, however, it was considered more convenient to send the documents directly to the district offices where the district supervisor would receive them and inform the regional officer accordingly.

Forms were prepared for the control of the despatch of documents from the Census Head Office and also for the distribution of documents among the various categories of field staff, in particular, field supervisors and enumerators. One of the control forms is the Supply and General Clearance Form (Form SG-1) which was intended to ensure that all documents, particularly the census questionnaires given to field supervisors and enumerators, were properly accounted for after the completion of enumeration. A duly signed Form SG-1 would also be proof that a field supervisor or enumerator had satisfactorily completed his/her census duties and was entitled to receive his/her honorarium.

It was, however, observed during the mission that the control forms were hardly being used. In some instances the Census Head Office did not send enough forms to the field so the field officers resorted to their own devices and in others the officers were not even aware that they were expected to use any such forms. The Census Co-ordinator made efforts to improve upon the situation during the last few days before census enumeration and he called on regional officers to ensure the use of the control forms but it was uncertain how successful he would be in his efforts at that late hour. The distribution of census materials, therefore, did not proceed as smoothly as it had been planned.

Census enumeration

Census enumeration started on February 1, 1984 and that day was declared a National Census Holiday and people were encouraged to remain at home. It was expected that enumeration would be completed in most areas by February 15 and that the census documents would be received at the Census Head Office in Monrovia by the middle of March 1984.

Enumeration procedures

Two types of questionnaires were used for the census enumeration. These were called long questionnaire and short questionnaire. The items on the short questionnaire are : name of city, town, or other place; street address if available; structure number; household serial number, type of household; name; relationship to head; sex; age; marital status; mother alive; place of birth; citizenship; length of residence, ethnic affiliation; religion; literacy; school attendance; highest grade; number of children born; children born in past year; principal economic activity; occupation, industry and work status. The long questionnaire contains all the short questionnaire items and the following: type of housing unit; occupancy status of housing unit; number of rooms in housing unit ; source of drinking water toilet facilities, lighting facilities, fuel for cooking; availability of radio and/or television set; number of housing units in building; construction materials of outer wall, roof and floor; number of household members who died during past 12 months and monthly income of head of housing unit.

Most of the items on both types of questionnaire were pre-coded and two hundred questionnaires were bound together as enumeration Workbook. The Workbook containing short questionnaires was marked E-1 and the long questionnaires Workbook marked E-2. Different colours (blue and pink) were also used to distinguish the two types of Workbooks.

The long questionnaire was administered in 20 per cent of the urban enumeration areas and 10 per cent of rural enumeration areas. The short questionnaire was used in all other areas.

The census enumeration was conducted on a de jure basis but the homeless persons were expected to be covered during the small hours of February 1, 1984 at places where they were found. Information received at Census Office confirmed that the enumeration of the homeless was completed as planned in most areas except Monrovia where due to a delay in the completion of the necessary preparations the exercise was conducted in the early hours of February 8.

Each enumerator was assigned an enumeration area and five to eight enumerators worked under a field supervisor who was expected to conduct re-interviews with specially designed forms in a sample of six structures in each enumeration area; and to use the information to check the completeness of coverage of the enumeration areas under his supervision.

Census evaluation

At the time of the mission it was expected that a post-enumeration survey would be conducted to evaluate the census coverage.

The post-enumeration survey would involve a re-interview of households in one per cent of the census enumeration areas; and in order to ensure that the survey would provide an independent listing of the population in the sample areas, it was expected to be conducted after the census questionnaires had been received at the Census Head Office.

The information expected to be collected in the post-enumeration survey to assist in the subsequent matching exercise were: geographical identification particulars, structure and household identification particulars, name, sex, age, relationship to head of household and occupation.

Three categories of population would be distinguished in the survey. These are: household population living in sample areas at the time of the census and also at the time of the survey (non-movers); household population living in sample areas at the time of the survey but were not usual residents of the areas at the time of the census (in-movers); and household population living in sample areas at the time of the census but have moved out of the areas by the time of the survey (out-movers).

The 'non-movers' and 'out-movers' enumerated in the survey will be matched with the census population in the corresponding areas on a one-to-one basis to obtain estimates of enumerated and missed 'non-movers' and 'out-movers'.

The proportion of matched (enumerated in census) and unmatched (missed in census) 'out-movers' in the survey will be applied to the survey count of 'in-movers' to obtain estimates of enumerated and missed movers; these will be added to the corresponding estimates of non-movers. The estimate of the completeness of the census coverage will be the percentage of the resident household population in the survey ('non-movers' and 'in-movers') who were correctly enumerated (matched) in the census. There would be a field reconciliation exercise in respect of unmatched census cases to obtain an estimate of overenumeration in the census.

It was expected that the re-interview method would be used to evaluate only the census coverage and that indirect method of data evaluation would be used in evaluating the quality of the census information. This will involve the use of demographic analytical tools to check the internal consistency of the census data after the tabulation of the census results.

Manual processing

The manual or clerical processing of the census results will involve the following: receipt, physical checking and storage of the completed census questionnaires and other relevant census documents including the preparation of population counts by enumeration area for control purposes; manual editing; coding and verification.

It was stressed that final list of enumeration areas for each district should be prepared without delay. The list should indicate both the preliminary and final geographic codes and, if available, the structure count from the cartographic preparations. Provision should also be made on the list for later insertion of the preliminary (hand count) and final population figures. The list of enumeration areas should be used to check the census documents to ensure that questionnaires have been received for all enumeration areas. It could also be used in compiling the preliminary population count for control purposes and also for publication of the preliminary census results.

Manual editing will be on a limited scale since a more comprehensive machine editing is expected to be carried out before tabulation.

It was suggested that coding be divided into two units to permit some form of specialization. The units are: geographic/demographic coding and economic coding. The former unit will cover the geographic identification particulars, relationship to head of household, place of birth and ethnic affiliation and the latter unit will cover occupation and industry. The remaining items on the questionnaire are pre-coded.

Verification team will be set up to verify the coding operation. Initially the work of coders should be verified 100% and sample verification introduced when the error rate of a coder for a two weeks' period came within an acceptable level. If the quality of work of a coder on sample verification subsequently fell below the acceptable level then his work should revert to 100% verification until the quality improved.

It was recommended that weekly meeting of coding and verification team leaders be convened to review progress of the two operations and to resolve any problems. It was also suggested that record of coders' and verifiers' work performance be maintained and, if possible, a proficiency bonus scheme be introduced to encourage the processing operators to attain high standards of work.

At the time of the mission codes lists, coding instructions as well as editing specifications and instructions were in their final stages of preparation. The draft of the editing specifications was discussed and suggestions made for its revision. It was stressed that the revised draft should further be discussed with the computer specialists.

Tabulation and publication plans

A draft tabulation plan has been prepared. The plan has provision for 39 tables on population and household characteristics and 5 tables on housing characteristics. The plan was discussed with the officers concerned and a number of suggestions made for its revision.

Attention was drawn to the omission of a tabulation on maternal orphanhood. It was also suggested that tabulations on distribution of females by number of children born should include a column giving total number of children by age of mother. Some suggestions were also made concerning tabulations on economic characteristics. In particular, it was suggested that the tabulation on distribution of population by principal activity should be amended to reflect the pre-coded categories on the questionnaire. The major groups 'working' and "not working" in the tabulation should be amended to read "economically active" and "not economically active respectively. The former major group will comprise the following categories: 'working', had job 'not working' and "looking for work" (unemployed). The latter major group will comprise "own house work" (homemaker), "going to school" (student) 'unable to work' and 'retired/other'.

It was also pointed out that since information on the last occupation and industry of the unemployed was collected in the census, tabulations of the unemployed by major occupation and industry should be included in the tabulation plan.

Additional tabulations on housing characteristics also need to be prepared to ensure that full advantage is taken of all the housing items investigated in the census.

The census publication programme had not been finalized at the time of the mission. It was, however, recommended that the programme should include the publication of analytical and administrative reports as well as abstracts of the census results for the general reader.