

**Report on the United Nations Workshop on the 2010 World
Programme on Population and Housing Censuses**

Maputo, Mozambique
30 October – 2 November 2006



United Nations Statistics Division
Maputo, 2 November 2006

A.	INTRODUCTION.....	3
B.	PURPOSE OF THE WORKSHOP	3
C.	PARTICIPATION	3
D.	PROCEEDINGS	3
E.	UNITED NATIONS PRINCIPLES AND RECOMMENDATIONS FOR POPULATION AND HOUSING CENSUSES, REV. 2.....	3
	1. PROCESS OF DEVELOPING THE RECOMMENDATIONS.....	3
	2. SUBSTANTIVE CHANGES IN THE CURRENT REVISION OF PRINCIPLES AND RECOMMENDATIONS FOR POPULATION AND HOUSING CENSUSES.....	5
F.	APPLICATION OF THE PRINCIPLES AND RECOMMENDATIONS IN NATIONAL CENSUSES – DISCUSSIONS IN GROUPS AND IN THE PLENARY	10
G.	CHALLENGES AND PRACTICAL SOLUTIONS FOR 2010 ROUND OF CENSUSES – DISCUSSION IN GROUPS AND THE PLENARY	12
H.	REGIONAL COOPERATION FOR THE 2010 WORLD PROGRAMME - DISCUSSION IN GROUPS AND THE PLENARY.....	13
J.	CONCLUSIONS AND RECOMMENDATIONS	14
	1 GENERAL	14
	2 PRINCIPLES AND RECOMMENDATIONS FOR POPULATION AND HOUSING CENSUSES	14
	3 CHALLENGES AND PRACTICAL SOLUTIONS FOR 2010 ROUND OF CENSUSES	15
	<i>a. Planning and organization</i>	15
	<i>b. Field work</i>	16
	<i>c. Analysis and dissemination</i>	17
	4 REGIONAL COOPERATION FOR THE 2010 WORLD PROGRAMME.....	17
	APPENDIX 1 COUNTRY REPORTS.....	18
	ANGOLA.....	18
	BOTSWANA	21
	ETHIOPIA	27
	GAMBIA	32
	GHANA	38
	KENYA	44
	LIBERIA	50
	MAURITIUS.....	55
	MOZAMBIQUE.....	62
	NAMIBIA	64
	NIGERIA.....	68
	SEYCHELLES.....	74
	SIERRA LEONE.....	80
	SOUTH AFRICA	85
	SOUTHERN SUDAN	98
	SAINT HELENA	100
	SUDAN	106
	TANZANIA.....	113
	UGANDA.....	115
	ZAMBIA.....	121
	ZIMBABWE.....	130
APPENDIX 2	AGENDA	136
APPENDIX 3	LIST OF PARTICIPANTS	140
APPENDIX 4	PRE-WORKSHOP ASSIGNMENT (DESCRIPTION).....	146

A. Introduction

1. The United Nations Statistics Division organized and conducted a Workshop attended by representatives from twenty-four countries from the African Region on the 2010 Programme on Population and Housing Censuses, in Maputo, Mozambique, from 30 October – 2 November 2006. The workshop was hosted by the Instituto Nacional de Estatística de Moçambique.

B. Purpose of the workshop

2. The basic purposes of the workshop were to:
 - a. Introduce the revised United Nations *Principles and Recommendations for Population and Housing Censuses*, specifically to present in details the new and revised international standards related to conducting a population and housing census;
 - b. Critically review the process of selection of census topics and relevant questions for participating countries planning their censuses and for producing internationally required outputs;
 - c. To discuss national preparations censuses as per United Nations recommendations;
 - d. Identify components of the population and housing censuses that are most vulnerable and in need of strengthening, thus allowing for the development of a comprehensive support within the framework of the 2010 World Population and Housing Census Programme;
 - e. Address ways of instituting and fostering regional cooperation, in African countries, in conducting population and housing censuses.

C. Participation

3. The workshop was attended by participants from Angola, Botswana, Egypt, Ethiopia, Gambia, Ghana, Kenya, Liberia, Malawi, Mauritius, Mozambique, Namibia, Nigeria, Seychelles, Sierra Leone, South Africa, Saint Helena, Sudan, Swaziland, Uganda, United Republic of Tanzania, Zambia, Zimbabwe, Southern African Development Community, United Nations Economic Commission for Africa, United Nations Population Fund, United Nations Development Programme and the United Nations Statistics Division.

D. Proceedings

4. The workshop was opened by Hon. Mr. Aiuba Cuereneia, Minister of Planning and Development, Government of Mozambique, in the presence of the Vice Minister for Foreign Affairs and the Vice Minister for Finance for Mozambique. Opening remarks were given by Mr. Joao Loureiro, President of the Instituto Nacional de Estatística, Moçambique, Mr. Srdjan Mrkic, United Nations Statistics Division and Ms. Petra Lantz of the United Nations Population Fund. On the first day the workshop was chaired by Mr. Joao Loureiro of Mozambique, Mr. John Kekovole and Mr. Lucky Ngwenya of South Africa on the second day, Mr. Samson Olanitekun of Nigeria on the third day and Mr. Ahmed Gomaa Abd El Al El-Bishehy of Egypt on the fourth day.

E. United Nations Principles and Recommendations for Population and Housing Censuses, Rev. 2

5. The workshop discussed, in detail, the revised version of the *Principles and Recommendations for Population and Housing Censuses*, as summarized below, focusing on their relevance and applicability to national census-taking practices and adopted recommendations (presented in part J).

1. Process of developing the recommendations

6. The role of the United Nations Statistics Division and the United Nations Statistical Commission in population and housing censuses was summarized as a background to the 2010 World Programme of Population and Housing Censuses.
7. The United Nations Statistics Division initiated the work on the revision of the United Nations *Principles and Recommendations for Population and Housing Censuses* in 2005, as requested by the United Nations Statistical Commission. Adoption of the revised set of Principles and Recommendations for population and housing censuses is also mandated as one of the three goals of the 2010 World Programme on Population and Housing Censuses, namely:

Goal 1: Conducting at least one population and housing census or census-like exercise in every country or area in the period 2005-2014;

Goal 2: Producing updated version of United Nations Recommendations for Population and Housing Censuses;

Goal 3: Providing a platform for comprehensive exchange of experiences, countries' participation, technical assistance and information.

8. These goals and the Programme itself were endorsed by the United Nations Economic and Social Council (ECOSOC) in its Resolution 2005/13 in June 2005.
9. In order to ensure the broadest possible participation the United Nations Statistics Division established the United Nations Expert Group for the 2010 World Programme on Population and Housing Censuses. For the purpose of revising the principles and recommendations, the Expert Group established a Drafting Group, three Working Groups and several Technical Sub-groups, as follows:
 - *Drafting Group* (chaired by Ms. Rosemary Bender, Canada) responsible for preparing the final draft
 - *Working Group on Standards, Frameworks and a Core Set of Outputs* (chaired by Ms. Susan Linacre, Australia) with particular attention to: marital status, households, families and living arrangements; employment; education; mortality; human functioning and disability; internal and international migration statistics; housing; and coordination of a core set of census tabulations for international dissemination;
 - Technical subgroup on internal and international migration statistics
 - Technical subgroup on marital status, households, families and living arrangements
 - Technical subgroups on human functioning and disability
 - Technical subgroup on core set of outputs
 - Technical subgroup on coordination of a core set of tabulations for international dissemination
 - Technical subgroup on housing census topics
 - *Working Group on Census Planning and Management* (chaired by Mr. Akira Takami, Japan) paid particular attention to alternative census designs; strategies of integrated data collection and dissemination; quality assurance; outsourcing and IT
 - Technical subgroup on integrated data collection and dissemination
 - Technical subgroup on quality assurance
 - Technical subgroup on alternative designs

- *Working Group on Promotion of Censuses: Making Value Visible* (chaired by Ms. Carmelita Ericta, Philippines) focusing on dissemination.

10. An interactive web-based forum was developed by the United Nations Statistics Division to facilitate the communication between the members of working groups and technical subgroups (<http://unstats.un.org/unsd/globalcensusforum/>) in addition to voluminous e-mail exchanges. In total, through the forum and the two expert group workshops, over 150 experts from all over the world contributed to the text of the revised *Principles and Recommendations for Population and Housing Censuses*.
11. The final draft will be submitted for approval to the United Nations Statistical Commission at its session in 2007.

2. Substantive changes in the current revision of Principles and Recommendations for Population and Housing Censuses

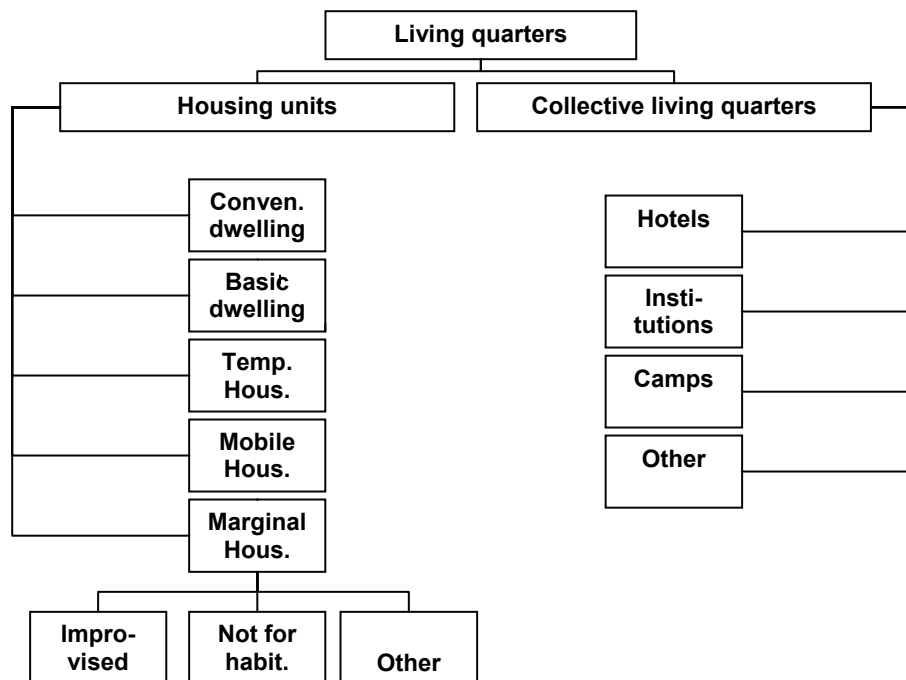
12. The current revision of the United Nations *Principles and Recommendations for Population and Housing Censuses* introduces several substantial changes. One of them is the fact that the recommendations are more output oriented than was the case before, as stated in the third paragraph of the *Preamble*: “Some nations are capable of generating this numerical profile for small areas from administrative sources or through a combination of statistical methods. However, the vast majority of countries produce these data on population and housing by conducting a traditional census, which in principle entails canvassing the entire country, reaching every single household and collecting information on all individuals within a brief stipulated period.”
13. In particular, in the past several years and in preparing for the 2010 round of censuses, a number of national statistical offices developed or are developing alternative census designs. A whole section of the *Principles and Recommendations for Population and Housing Censuses* discusses, in addition to the traditional censuses, on:
 - a. Register-based approach
 - b. “Rolling” census
 - c. Traditional census combined with yearly updates
 (updates on these and other alternative census approaches are maintained by the United Nations Statistics Division at: <http://unstats.un.org/unsd/demographic/sources/census/default.aspx>.)
14. The concept of usual residence defined by the period of residence is introduced in this revision of *Principles and Recommendations for Population and Housing Censuses*. Particular attention was given to the introduction of an “intention” element to the definition and it was clarified that this may assist in resolving duplication between countries.
15. The revised version of the recommendations presents core and additional topics for the population and housing census. The direct core topic refers to the topic for which it is necessary to formulate and feature a direct question, and derived core topic refers to information which can be ascertained from already asked questions; it needs to be derived in the phase of processing census results. All core and additional topics are organized in the following modules:
 - a. Geographical and internal migration characteristics
 - b. International migration
 - c. Household and family characteristics
 - d. Demographic and social characteristics

- e. Fertility and mortality
 - f. Education
 - g. Economic characteristics
 - h. Disability
 - i. Housing
16. As for the module on geographical and internal migration characteristics, direct and derived core topics remained the same, while two additional topics are introduced:
- a. Place of usual residence (direct topic)
 - b. Place where present at time of census (direct topic)
 - c. Place of birth (direct topic)
 - d. Duration of residence (direct topic)
 - e. Total population (derived topic)
 - f. Locality (derived topic)
 - g. Urban/rural (derived topic)
 - h. Place of previous residence (additional, was a core topic)
 - i. Place of previous residence at a specified date in the past (additional, was a core topic)
17. Topics for the module on international migration show the introduction of two new direct core topics:
- a. Country of birth (in conjunction with the place of birth – new direct core topic)
 - b. Citizenship (direct topic)
 - c. Year or period of arrival (new direct core topic)
18. The topics for the module on household and family characteristics did not change:
- a. Relationship to head of household or other reference member of household (direct core topic)
 - b. Household and family composition (derived core topic)
 - c. Household and family status (additional topic)
19. The revised module on demographic and social characteristics incorporates two new direct core topics and one new additional topic:
- a. Sex
 - b. Age
 - c. Marital status
 - d. Religion
 - e. Language
 - f. Ethnicity
 - g. Indigenous people (new topic)
20. The module on fertility and mortality characteristics contains four new core topics:
- a. Children ever born (direct core topic)
 - b. Children living (direct core topic)
 - c. Date of birth of last child born alive (new direct core topic)
 - d. Deaths in the past twelve month (new direct core topic)
 - e. Births in the past twelve months (derived core topic)
 - f. Deaths in the past twelve months (derived core topic)
 - g. Age, date of duration of fist marriage (additional topic)
 - h. Age of mother at birth of first child born alive (additional topic)
 - i. Cause of death in broad categories (new additional topic)
 - j. Maternal or paternal orphan hood (additional topic)
21. Educational characteristics module did not change:

- a. Literacy (direct core topic)
 - b. School attendance (direct core topic)
 - c. Educational attainment (direct core topic)
 - d. Field of education and educational qualifications (additional topic)
22. Economic characteristics module changed in a sense that one previously direct core topic is now listed as additional topic:
- a. Activity status (direct core topic)
 - b. Occupation (direct core topic)
 - c. Industry (direct core topic)
 - d. Status in employment (direct core topic)
 - e. Time worked (additional, was a core topic)
 - f. Purpose of collecting data on economic characteristics (additional topic)
 - g. Selection of job to be classified by descriptive variables (additional topic)
 - h. Income (additional topic)
 - i. Institutional sector of employment (additional topic)
 - j. Place of work (additional topic)
23. Disability is being introduced as direct core topic in this revision of principles and recommendations, with impairment and handicap as an additional topic. A new chapter has been drafted for P&R reflecting the considerable development of this topic in the recent past.
24. The module on housing has five new direct core topics:
- a. Location (direct core topic)
 - b. Occupancy status (direct core topic)
 - c. Ownership (direct core topic)
 - d. Numbers of rooms (direct core topic)
 - e. Water supply (direct core topic)
 - f. Main source of drinking water (new direct core topic)
 - g. Sewage disposal (new direct core topic)
 - h. Bathing facilities (direct core topic)
 - i. Kitchen – availability of (direct core topic)
 - j. Fuel used for cooking (new direct core topic)
 - k. Type of lighting/Use of electricity (direct core topic)
 - l. Solid waste disposal (new direct core topic)
 - m. Occupants – number of (direct core topic)
 - n. Age and sex of head of household/reference person (direct core topic)
 - o. Type of tenure (direct core topic)
 - p. ICT devices (new core topic)

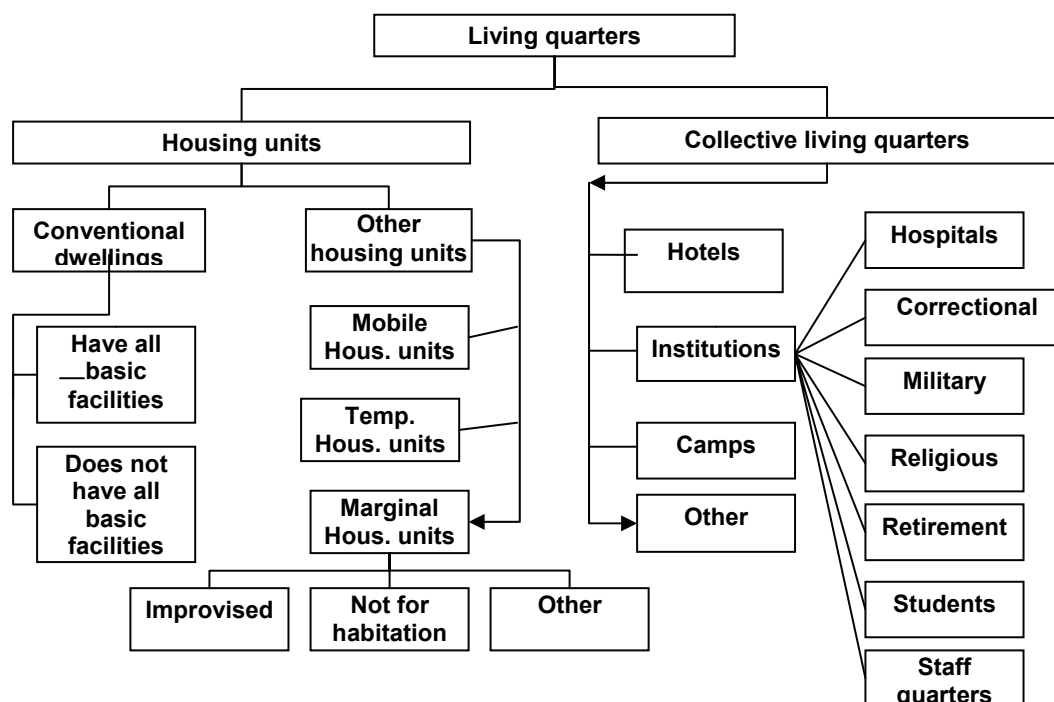
With regard to the housing part of the census, it has to be emphasized that the revised set of recommendations includes a changed classification of living quarters. In the current version (Revision 1) of the *Principles and Recommendations for Population and Housing Censuses* the classification of living quarters can be graphically presented as follows:

Figure 1. Classification of living quarters (current revision)



25. This version of the *Principles and Recommendations for Population and Housing Censuses* classifies housing units into five distinct classes: conventional dwellings; basic dwellings; temporary; mobile; and marginal housing units, with a further subdivision of marginal housing units into improvised, units in permanent buildings not intended for human habitation and other premises not intended for human habitation. The underlying intention was to emphasize the need to differentiate between dwellings (conventional and basic), on the one hand, and other housing units on the other.
26. The basic dichotomy of housing units – dwellings and other housing units – is somewhat blurred by the five classes of housing units all being listed at the same level in the classification. While almost all national practices include more than two distinct types of housing units (apartment, villa, ranch, detached house, hut, shack) it is clearly the intention to distinguish between what can be called as “target” or “ideal” housing conditions provided by conventional dwellings and the others that fall short of it.
27. Consequently, the proposed Revision 2 of *Principles and Recommendations for Population and Housing Censuses* features this revised the classification of housing units as presented in Figure 2:

Figure 2. Classification of living quarters, Rev. 2



28. The revised classification of housing units, therefore, draws more clearly the line between conventional dwellings and other housing units, while maintaining the distinction between each of these broad categories. By defining the conventional dwellings that has all the basic facilities and conventional dwelling that does not have all the facilities, the classification maintains the distinction between permanent housing that provides full access to facilities and housing that does not. It is important to emphasize that the concepts and definitions remain unchanged and that the proposal for changing the classification basically aims at clarifying hierarchical levels in the line of their importance as information-carriers and for more user-friendly presentation in tabulations.

29. As for collective living quarters, the past decade witnessed a shift in their availability and importance in workshop housing needs, especially related to the phenomenon of population aging and the emergence of various collective living quarters designed to meet the needs of elderly population. Consequently, the current classification that does not elaborate on the different types of institutions does not reflect accurately differences in housing conditions of the occupants of institutions. This revision now incorporates eight new categories at the three-digit level (including the residual category “other” (see Figure 2 above).

30. The revised *Principles and Recommendations for Population and Housing Censuses* is also introducing a new international standard: a set of recommended tabulations that each country is requested to generate at the smallest geographical level for workshop the needs of users at national, regional and international level. This set of tabulations is presented in Appendix 3 and consists of 51 tabulations.

F. Application of the Principles and Recommendations in national censuses – Discussions in groups and in the plenary

31. The workshop, organized in five groups, discussed in detail the implications of the revised set of recommendations to national situations. Emphasis was put on the following areas.
- a. Procedures:
 - i. Quality assurance
 - ii. Contracting out
 - iii. Macro-Editing
 - b. Core population topics:
 - i. Place of usual residence
 - ii. Date of birth of last child born alive
 - iii. Births in the past 12 months
 - iv. Deaths among children born in the past 12 months
 - v. Household deaths in the past 12 months
 - vi. Disability
 - c. Classification and core topics for housing:
 - i. Classification of living quarters
 - ii. Main source of drinking water
 - iii. Use of information and communication technology devices
 - d. Other topics that have remained core in both 2000 and 201 Rounds.
 - e. Tabulations
 - i. To what extent do you agree with the recommended grouping for the census tabulation in terms on basic, recommended, and optimum rather than having them as one group of tabulations as for the 2000 Round?
 - ii. How relevant are the 51 recommended tabulations for your national data needs?
 - iii. Identify any recommended tabulations that would be difficult to implement in your national census and suggest ways around the problem
32. The discussions in this part of the workshop evolved around the themes as listed above. Most issues related to the new text of the *Principles and Recommendations for Population and Housing Censuses* relating to quality assurance were emphasized as a welcome addition and all the groups outlined the fact that the population and housing census is such a voluminous exercise that the importance of quality assurance becomes even more crucial. Thus, quality assurance is pertinent to all the phases of the census, starting from preparatory activities upto the release of the final report and results. Participants noted that it is necessary to clearly pinpoint the different methods for ensuring adequate quality, such as the existence of detailed documentation, training, supervision, procedures to check the data, data editing, processing and tabulations, as each of these phases really poses different challenges.
33. In discussing the part of the *Principles and Recommendations for Population and Housing Censuses* regarding contracting out some specific parts of census operations, participants outlined the concern related to the confidentiality and privacy of census records. Yet, it was recognized that these concerns vary considerably across the region as a consequence of uneven public awareness regarding the

possible misuse of data. The workshop also discussed different experiences in outsourcing in the region in the previous round of censuses and noted that it is still not a frequent occurrence.

34. Macro-editing as presented in the revised set of *Principles and Recommendations for Population and Housing Censuses* was discussed from the point of view of the fact that this procedure is not equally developed across the region. Quite a lot of this type of editing is performed by users of data that perform it in the process of data analysis for their own needs.
35. In discussing this first part of the revised *Principles and Recommendations for Population and Housing Censuses*, the participants underscored the increasing importance of the use of Geographical Information System (GIS), Global Positioning System (GPS) and geo-coding in general at the different phases of the census, but specifically for census mapping and for the dissemination of results. A number of positive experiences in the previous round of census were discussed; it was also noted that the rapid development of these tools requires constant follow-up and training as well as proper assessment of the optimal ways of using them in the context of the census.
36. The participants took time in discussing the contemporary alternative approaches for conducting population and housing censuses as they are presented in the revised *Principles and Recommendations for Population and Housing Censuses*. They noted with interest the capabilities of registers in generating census-type results and discussed all the necessary pre-conditions for applying this tool, such as the existence of the universal registration of population, fully functioning civil service, links between registers and statistics, content and updating of the registers. Similarly, the participants discussed the combination of registers and surveys and other emerging methods as described in the draft publication emphasizing the need to follow-up on these new approaches in light of the next (2020) round of censuses.
37. All the groups and the plenary discussed at great lengths core topics as presented in the revised set of *Principles and Recommendations for Population and Housing Censuses*. All of the core topics are indeed important for every country in assessing their distributions of populations and needs for the future. Even so, the participants discussed those topics that are of particular importance to their national needs and those that are not a priority. More specifically, a detailed discussion involved several topics labeled as core that refer to measuring internal and international migration: Country of birth, year or Period of arrival, Place of previous residence and participants from a number of countries (such as Botswana, Ethiopia, Gambia, Kenya, Mauritius, Mozambique, Uganda and Zambia) emphasized that these would not be of great relevance to their respective censuses because of very low occurrence of foreign born persons, or the lack of knowledge of the place of birth and other circumstances. On the other hand, participants expressed the need to follow international guidelines, especially since in some parts of the region (e.g. South of Africa, for example) internal and international migrations are an increasing phenomenon.
38. Similarly, a discussion centered on births and deaths in the last twelve months that are designated as core topics in the revised set of *Principles and Recommendations for Population and Housing Censuses*. Participants outlined the fact that these topics tend to create significant problems in the phase of data collection, and, consequently, in the phase of data processing and dissemination, due to the lack of proper recollection, different approaches to measuring time, and cultural sensitivities. Yet, it was also recognized that the low level of development of national civil registration and vital statistics systems in the region necessitates the inclusion of these topics in the census.
39. Disability as a core topic was also discussed at length given the complexity of the issue and the experiences in the previous round of censuses. Participants recognized the revised concept of disability that relates to the human functioning, rather than handicaps. The relevance of such a shift in the approach was challenged by a number of participants that emphasized the needs of policy

users in their respective countries – that is, the number of people in need of special services provided by the government.

40. Regarding the new classification of living quarters as introduced in this revision, the discussion, centered on the differences in local circumstances regarding the housing arrangements and the efforts and testing that is crucial for assessing the most appropriate approach for classifying different classes of housing conditions. The advantages of the pre-classification approach (that is, when the enumerator classifies the structure within one of the pre-coded categories) and the post-classification approach (whereby classifying a housing unit in a certain classes is performed in the phase of data processing on the basis of characteristics of the housing unit) were discussed in some detail.

G. Challenges and practical solutions for 2010 round of censuses – Discussion in groups and the plenary

41. The workshop discussed, in five groups, identifying potential challenges (such as lack of qualified staff, lack of technical capacity for tasks such as project management, geo-coding, outsourcing of census operations, analysis and dissemination etc.) faced by countries in carrying out a national census in the next round. Where a problem was identified attempts were made to present practical solutions to overcome such challenges.
42. The discussions were structured along the following broad topics: (1) planning and organization; (2) field work; (3) analysis and dissemination.
43. In the area of planning and organization, the discussion in the groups and the plenary was detailed and exhaustive. When it comes to the financing of the censuses, the discussion brought together experiences from the 2000 census round and a number of obstacles that needed to be overcome by census-takers in order to achieve the expected goals. Participants noted that the overseas donors were much less enthusiastic to support national statistical authorities this time around and that national governments had to undertake the mobilization of resources in a much more substantive manner. While governments in general demonstrated a high understanding for the needs of the census, there were still instances where census operations were seriously jeopardized by the lack of adequate logistical support.
44. Participants exchanged their experiences in advocacy for the census and the success of the census publicity campaigns as a useful and overreaching tool in census taking. The importance of successful advocacy efforts and publicity campaigns cannot be over-estimated. Whether it is a campaign involving local authorities, such as village chiefs and elders, or using the national radio, or the distribution of T-shirts and other items to enumerators, or the affixing of a census logo to the most popular local beverages (as in Botswana, for example), or the mobilization of school children to advertise the census to their parents and neighbors, it was noted that they provide a tremendous support for the census to the general public which, in turn, puts an additional pressure to the government to fully support census-taking. A number of discussants also noted the important role that the United Nations, in general, has in promoting the census.
45. The planning of a successful census requires primarily detailed and comprehensive mapping of all the territory and human settlements, which, coupled with the household listing, is a *sine qua non* of efficient field operations and division of labor among enumerators. For the next census round, the participants discussed the power of advanced technology for mapping, such as Geographical Information Systems and the use of Geographical Positioning Systems as a core of costs-saving and performance-enhancing activities. The discussion centered on which would be the best approach in using these advanced technologies not only for data collection but for data dissemination as well. It

was pointed out that the production of census atlases for local areas has been a significant success in making the use of census results by an increasing number of users at all levels.

46. Discussion evolved around several other topics as well. The importance of the pilot census and its use was one of those. Undertaking a pilot census is a routine operation in most of the countries in the region, but, apart from testing the questionnaire and the process of interviewing, little use is made in terms of analyzing the results, it was noted. Also, maintaining the continuity between two censuses is seriously hampered by a number of circumstances; census staff tends to leave soon after the census itself with that institutional memory lost; there are no firm practices in how to document all census activities so that they can be preserved for future use and for better understanding of the collected data.
47. Field work was a broad topic for discussion in all the groups and later in the plenary. The first and most challenging was the recruitment and training of enumerators and field supervisors. Experience in the past round of censuses and the expectation for the next round point out to the need to address these issues as early, in the process, as possible. Some countries use their teachers as primary pool for enumerators and this has been functioning well; however, there were also negative experiences with this approach, when census becomes hostage to labor negotiations with powerful unions. Training is also crucial and the discussion centered on the best timing for the training, its length (varies from 3-6 days) and the testing of the trainers and trainees.
48. Participants of the workshop came from all over the African continent and, depending on the national circumstances, they discussed at length several natural or man-made obstacles to the successful field work. In some cases, these referred to the remoteness of certain areas which makes them nearly inaccessible; the lack of roads and other communication infrastructure; the movements of certain portion of population across borders; displaced persons; existence of land mines and other ordnance left over from conflicts.
49. Use of scanning technology for data capture was discussed at length given the different national experiences in the 2000 round of census. The prerequisites for using the technology efficiently were debated, especially in terms of costs of the special paper, transport and safe-keeping, as well as training in use and handling of the forms to be scanned.
50. In the area of analysis and dissemination the groups and the plenary discussed at length these two components of the census particularly from the point of view of the fact that they appear to be the most vulnerable parts of the census. In the previous round the census taking virtually stopped with the release of the first results in some cases, thus leaving the wealth of collected data completely unused. The dissemination in some cases still evolves around books of tables on specific topics. The more user-friendly media, such as local wall-charts and other easy to understand sheets were not developed in a number of cases. As for the analysis, it really came down to few academic institutions that did not have the capacities to fully employ analytical tools and resources to that end. Some of these deficiencies were a result of the lack of funds, as most resources were exhausted during the field operation part of the census.

H. Regional cooperation for the 2010 World Programme - Discussion in groups and the plenary

51. The participants debated the regional cooperation in the plenary, but throughout the workshop this topic was discussed in context of the next round of censuses. It was clear that the organization of the First African Symposium on Statistical Development, held in Cape Town, South Africa, in January 2006 provided a long-time missing and most-welcome push for establishing new arrangements in

ensuring regional cooperation and coordination. In addition, the functioning of the Friends of the Economic Commission for Africa and their push in calling for re-institution of the statistical component of the Commission was recognized by the participants as crucial in enabling the introduction of the proposal for an African Statistical Centre as a separate division of the United Nations Economic Commission for Africa.

52. The issue of exchanging knowledge and experiences at the regional level is one of utmost importance and all the mechanisms that can improve these processes need to be addressed on a multilateral and bilateral basis.

J. Conclusions and recommendations

1 General

53. The workshop expressed its appreciation to the Government and the National Statistical Office of Mozambique for hosting the workshop and ensuring excellent working conditions and hospitality.
54. The workshop expressed its appreciation to the United Nations Statistics Division for organizing this important workshop.
55. This workshop, bringing together census methodologists and census managers in the region, was extremely important for several reasons: understanding the new international standards for conducting population and housing censuses, learning from each other's national practices and setting a stage for more coordinated regional cooperation. Thus, the current initiative of holding regional symposia annually provides an ideal opportunity for follow-up.

2 Principles and Recommendations for Population and Housing Censuses

56. In general, the workshop expressed the necessity for the countries in the region to follow the United Nations *Principles and Recommendations for Population and Housing Censuses* as it lays ground for regional and international comparability of census results. In doing so, the workshop recognized that the vast majority of the countries in the region, while taking note of alternative approaches to censuses, will conduct the traditional census in the 2010 round. It was also pointed out that modifications to operational procedures should be made as needed to take into account the technological advances made since the previous round, especially in the area of Geographical Information Systems (GIS), Global Positioning System (GPS) and scanning technologies. It was concluded that the United Nations Statistics Division should, in implementing the 2010 World Programme on Population and Housing Censuses, focus on these issues and prepare specific guidelines, including best practices and the strategies for evaluation of different software packages. Once these guidelines are developed, the United Nations Statistics Division in cooperation with United Nations Economic Commissions for Africa should organize and conduct workshops to ensure their widest possible application.
57. As far as alternative designs for population and housing censuses are considered, such as register-based and combination of different methods, the workshop concluded that, in general, these methods as described in the recommendations are not practical for most if not all participating countries, in the 2010 round, in Africa.
58. The workshop noted the output oriented approach of the revised *Principles and Recommendations for Population and Housing Censuses* and concluded that the set of recommended tabulations represents an important addition to the standards, as it would enable more effective regional and international

comparisons. While it is important to aim at comparable output, the workshop also noted the need for the African region to aim at comparable census operations, since the method of operation will influence the comparability of outputs. This will be relatively simple as most of the countries will conduct a traditional census.

59. The workshop concluded that, in general, core topics in the recommendations reflected the essential data needs at national and regional levels. It was also outlined that in some cases the definition of core topics will not be completely applicable in all national circumstances. For example, difficulties may arise with the inclusion of the intention to reside in a specific location as an element of the definition of usual residence, the definition and classification of living quarters and the concept of disability as per the International Classification of Functioning and Disability.
60. It was also emphasized that in some cases the implementation of core topics would create significant problems with undesirable outcomes in certain countries. Specifically, collecting the number of household deaths in the past twelve months, as well as dates of births, which are core topics, cannot sometimes be accurately collected, as a consequence of the lack of proper recollection and cultural circumstances.
61. The workshop also concluded that the United Nations Statistics Division needs to follow up the recommendations with a set of guidelines that will elaborate on the concepts and questions in a more technical and precise manner. For example, the measurement of family nuclei, literacy and Information and Communication Technology (ICT) devices.
62. Participants identified some topics that are not completely relevant for their countries due to low occurrence, such as foreign-born population and vacant conventional dwellings. On the other hand, the workshop endorsed the inclusion of orphanhood as a core topic for African region, due to its growing importance in measuring social conditions.
63. The workshop concluded that for the collection on the core topics on general water supply and the source of drinking water the same classification, as that for the source of drinking water, should apply.
64. Participants noted that some of the concepts in the recommended tabulations will result in potential difficulties to generate them. The concepts of urban and rural and urban agglomerations were outlined as examples. Countries will need to provide full definitions and other metadata for these classifications.

3 Challenges and practical solutions for 2010 round of censuses

65. The workshop noted that the conducting of population and housing censuses in the 2000 round had some positive impact on building national statistical capacities in the region, through the establishment of institutional frameworks, training of statisticians and enhancing their skills, gaining public support and respect and earning the recognition of decision-makers, scholars and academia.
66. In that context, there is a need to work on the weak spots identified by the workshop, with specific reference to the following topics.
 - a. **Planning and organization**
 - i. The workshop concluded that for the next round of censuses there is a clear need for the governments to recognize the need to finance the censuses themselves, with the resources from development partners used just to top up. It was noted that there is a requirement for

census-takers to provide a detailed and early strategic plan as advice to governments of the funding requirements and to explain the importance of census through advocacy campaigns, as per the *Preamble* of the revised *Principles and Recommendations*.

- ii. The workshop recommended that countries should build into their strategic plans a framework for monitoring and evaluating the progress and quality of the entire census process.
- iii. The workshop identified census mapping as one of the most critical and strategic issues for the next round of censuses. This is primarily due to the fact that the GIS and GPS offer remarkable room for improving the efficiency of preparatory census work, as already documented in a number of countries, where this approach has considerably enhanced the national cartographic infrastructure. However, the workshop warned that there is a strong and immediate need for training and acquiring technical expertise in applying contemporary technology and methods for digital mapping. Notwithstanding the essential need for maps in the preparatory phases of a census, it is necessary to outline their outstanding usefulness for dissemination of census results.
- iv. The workshop recognized the improved part on quality assurance in the *Principles and Recommendations* but noted that countries would need additional and intensive technical support if this is to be implemented. As part of quality assessment practices, countries should include a post-enumeration Survey in their strategic planning and fully test the proposal.
- v. With regard to advocacy and publicity, the workshop concluded that improving these two areas is a solution for some problems. Consequently, it is necessary to plan accordingly and to start the process early in the preparatory phase of the population and housing census.
- vi. The workshop concluded that it is telling that none of the countries that administered a pilot population and housing census found it necessary to execute full analysis of the collected data. The next round of censuses needs to take full advantage of pilot census, both for testing data collection tools and procedures and analytical tools as well.
- vii. Participants underscored the needs for proper and complete documentation of all the phases of the population and housing censuses as well as data dictionaries. Both sets of documentation are indispensable in interpreting the results of the census.

b. Field work

- i. The workshop concluded that one of the most critical components of the field work is recruitment and training of an adequate temporary work force. It was noted that the previous censuses were potentially jeopardized by deficiencies in recruitment, training and execution of work by enumerators, due to a number of reasons. Consequently, there is a need to ensure a proper process of recruitment, and that involves a broader approach and negotiations with government and workers' associations. It was also recognized that timely and detailed arrangements with field staff considerably reduce the problems during the collection phase.
- ii. Participants warned that there are particular circumstances in quite a few countries in the region that might hamper the success of field operations in the next round of censuses, such as existence of land mines and other ordnance left over from conflict situations. This affects both the preparatory cartographic work as well as the enumeration itself. The solution must be looked for using a number of different approaches, such as advice from military, consultation with local leaders and coordination with de-mining processes.

- iii. The workshop concluded that the past experiences with scanning technology were mixed. At this moment, it is without doubt that this technology has potential to offer significant improvements in timeliness of release of results; however, there are a number of important preconditions that need to be satisfied to successfully implement scanning. For example, it is necessary to ensure the proper quality of the paper and printing, that the enumerators are able to complete the questionnaires in correct manner, and that the material is able to be kept in optimum conditions during field work, transportation and processing operations.

c. Analysis and dissemination

- i. In general, the workshop concluded that analysis and dissemination might present the biggest challenges in the forthcoming round of censuses, if previous experiences are repeated. In many cases there continues to be the view that census operations conclude with data processing and very limited funds are made available for analysis and dissemination. As a matter of urgency the workshop outlined the need for training in developing flexible Internet-based applications for generating various cross-tabulations at the specifications of users. Particular advocacy efforts must be made to ensure that government is fully aware of the need for effective, comprehensive and timely dissemination of census results.
- ii. Participants also concluded that the analysis that includes only academicians may not be user-friendly and suitable for broad consumption. Thus the need exists to have the analysis more policy oriented and presented in a straightforward manner.
- iii. The workshop concluded that the dissemination in the next round of censuses has to be based on a full and critical assessment of the client base and their needs. This assessment should comprise both identification of the needs and an assessment of the usage of census products against those needs.

4 Regional cooperation for the 2010 World Programme

- 67. The participants unanimously approved the call for support of African countries that are currently in particularly difficult circumstances and that have not been able to conduct a population and housing census for a prolonged period of time. The 2010 World Programme and the region need to firmly commit to the success of conducting a census in these countries during the 2010 census round.
- 68. The workshop underscored the value and importance of exchange of national experiences and expressed expectations that these exchanges will continue in both bilateral and multilateral forms and requested the United Nations Statistics Division and other relevant international and regional organizations to support these exchanges.
- 69. As the process of globalization becomes more and more present in the region, the importance of exchanging national experiences becomes even more necessary, the workshop noted. Many strong points identified in national presentations may and should be shared among national statistical offices. The workshop encouraged bilateral consultations in that respect.

Appendix 1 Country reports

Angola

Population and Housing Censuses – Angola 2010

The Population and Housing Censuses has been considered, internationally, as the most complex and important statistic operation as well as the most expensive than any other that an country can conduct. It is also a fundamental statistic operation, while the data which are obtained about individuals of a geographical level, allows not only the characterization of the population, but also constitute the fundamental base for the analysis of social structure and the economy of a country, the evolution and tendency.

In true, the censuses constitute a unique source of data absolutely necessary for the realization of diagnostics and planning in various domains of political activity, economic and social, as well as in the investigation and design of representative sample to conduct special household survey.

In Angola, the first Population and Housing Censuses were conducted between 1940 and 1970, was realized only one censuses in each period of 10 years. In the years 80's the first and the only one tried Population and Housing Censuses in Angola (Independent) and the 5th of its history. However, the Censuses of 1983/85 restrict in a partial covering of the country, corresponding of about 50% of the population.

At the SADC level, our country is the only one in 30 years which did not conduct a Population and Housing Censuses. From the 14 countries members that constitute the community only (Angola, DR of Congo, Malawi and Tanzania) did not carry out the respective censuses in the present date.

Conditions

To guarantee the success of the next Population and Housing Censuses it is necessary to consider the following conditions:

- Cartographic actualization of all national territory
- Extension of local administration of the state in all territory
- Stabilization of the migratory flux
- Uprising and localization of the geographic mined areas
- Remove the mines on the road that gives access to populated localities
- Improvement and rehabilitation of the principles roads and bridges of the country
- Improvement of mass media in the interior of the country
- Installation of principles statistics services in the provinces (SPINE's)

Obviously the conditions for the realization of next Population and Housing Censuses are limited as presented before. Is necessary to consider that other conditions must be taken in consideration, with particular attention for the following:

- Preparation of the necessary legislation for the realization of the censuses (law of Population and Housing Censuses)
- Installation of a processing capacity of data enough for the processing, in the possible best conditions, of all collected information and the respective conservation in data bases.
- Training of elevate number of people, specially the people from the field: surveyors and supervisors.

- Guarantee of transports and communications at national level.

Actual situation

The next Censuses for the year 2010 is being prepared according to the principles and recommendation internationally recognized by the United Nation organization; in the process of this preparation we have already concluded the following documentation:

1 - Global Programme

Preparatory activities – cartographic actualization, pilot survey, sensitization campaign.

Information collection – the collection of information will be done by the method of direct interview. The work of information collection will be executed by the interviewers specially recruited and trained for the effect.

Data processing – for data entry will be utilized the method of optic reading or entering of data from the key board. The IMPS (integrated microcomputer system) will be utilized as the treatment package, coherency test and system of imputation data and tabulation.

Variables to be observed on the individuals:

- Demographic characteristics of Migration

- Usual local residence
- Situation before the residence
- Place of birth
- Duration of usual residence
- Local residence before
- Nationality

- Demographic and Social Characteristics

- Sex
- Date of birth
- Marital status
- Language
- Religion

- Fecundity and Mortality

- Number of children born alive
- Number of children alive
- Date of birth the last child born alive
- Mother age by the time of her first child born alive
- Orphans
- Happened deaths in the last 12 months (in the household)

- Characteristics of education

- Literacy
- School frequency
- Level of education
- Area of formation

- Economic characteristics

- Situation of activity
- Condition at work
- Occupation
- Line of economic activity
- Time of work
- Principle way of life

- Characteristics of people with disability

- Type of disability
- Cause of disability

-Varieties to be observed in the housing

- Type of house
- Type of material utilized in the external halls of the house
- Type of material in the roof
- Year or period of built
- Way of occupation
- Number of divisions
- Number of bedrooms
- Existence of kitchen
- Type of water supply
- Type of bathrooms
- Type of power used for illumination
- Type of power used for cooking
- Type of litter removing

2 - Plan of

3 - Questionnaires

- Housing mode
- Household mode
- Population mode

4 - Diplomacy projects to fit the next population and housing censuses:

- Law project of legislative authorization for the government to legislate up on the realization of the next population and housing censuses.
- Project of law decree of the ministries council about the realization of the next population and housing censuses.
- Resolution project of the national council of statistics to create an eventual specialized commission for the procession of the next population and housing censuses.

According to the available documents this operations did not have technical rigidity, it was a simple counting and did not cover the all national territory for many reason such as political military stability in the referent period, uprising and distribution of all mined area and the creation of conditions that allows the stabilization of the population. As the population and housing censuses is an activity that requires a lot of sources that demand a very careful preparation, Angola did not conduct a census in the last 30 years, and because of that Angola lacks experience and has a big necessity of international technical help from the countries with more experience.

Botswana

United Nations Workshop on the 2010 World Programme on Population and Housing Censuses - Botswana's Country Report

1. Census Methodology

In Botswana, the Central Statistics Office conducts population and housing census after every ten years as part of its mandate. The fourth post independent census was conducted in 2001. The censuses cover a wide range of topics in broad. However, there are inter censal surveys conducted each year for specific field in order to give updates on certain variables/topics. Some of the inter censal surveys are (1) Botswana Demographic Survey (BDS), (2) Botswana Literacy Survey, (BLS), (3) Labour Force Survey (BLFS), (4) Household Income and Expenditure Survey (HIES), (5) Informal Sector Survey (ISS), etc.

a. Recommended Core Topics

Botswana covers all core topics recommended in the Principles and Recommendations for Population and Housing Censuses Revision 2 in exception of Year or period of arrival and Date of Birth of last child born alive. Topics covered in Botswana census include (1) Geographical and Migration characteristics, (2) Household characteristics, (3) Citizenship, (4) Parental Survival, (5) Demographic and social characteristics, (6) Fertility and mortality, (7) Educational and Economic Activity characteristics, (8) Disability characteristics, (9) Land and Housing ownership and Agriculture. It will therefore be easy to implement the international guidelines as far as core topics are concerned.

b. Recommended Tabulations for the Census Core Topics

There are guidelines based on the draft Principles and Recommendations for the Population and Housing censuses Revision 2, which countries are expected to implement. In case of Botswana Central Statistics Office (CSO), almost all the suggested tabulations are in line with the international recommendations or standards. There are only minor differences in terms of cross tabulations. With the availability of data, as collected during the census, recommended tabulations can easily be implemented. However, the majority of tabulations in CSO publications are based on demands from customers and stakeholders.

There are other topics that are not covered during the census and hence no such tabulations available. These include; (1) Duration of Residence after 5 years, (2) Year or Period of arrival in the country prior to the census date and (3) Date of Birth of Last Child Born Alive. These topics will be considered during the next census.

c. Census Management and other issues

Conformity to Internationally agreed Standards and Definitions

Some definitions designed to suit Botswana context may not necessarily conform to the other countries. An example is definition of rural village in Botswana may differ with other countries.

This notwithstanding, Botswana conforms very well to internationally agreed standards when it comes to definitions.

Another important census management aspect is confidentiality of individual information collected. This is provided in the law on individual confidentiality under the Statistical Act of 1967. This act of Parliament gives authority to the National Statistical Office to take action against an officer who

“discloses or makes known any matter or thing in breach of an oath or affirmation”.

Vital registration system

Civil registration system has been practiced in Botswana since 1986, extracting vital events statistics from vital registers kept by the Department of Civil Registration under the Ministry of Labour and Home Affairs. The vital events give a summary of basic demographic indicators i.e. mortality, fertility and population indicators, and provide Vital Statistics for the country.

Vital Statistics and censuses activities are conducted at different levels and times. Vital events information is collected from institutions each time they occur and registered. Registration of these (births and deaths) events is not compulsory. Vital statistics reports are compiled annually. Censuses are conducted at household level every ten (10) years. The National Statistics Office therefore does not have any intention to replace the activities of one by the other.

2. Census Managers

I. Experience of 2001 Botswana Census

a. Background Information

Botswana held its most recent Population and Housing Census in August 2001. Prior to the Census exercise was a Pilot Census in August 2000 whose main objective was to assess and evaluate appropriateness of census operations and implementation strategy for the main census. Despite the bad terrain in some parts of the Country, the 2001 Population and Housing Census exercise was a success.

b. District Census Organizational Structure

A Census Office headed by the Census officer was set up with the Central Statistics Office to run the day to day administration of census activities. District census structures were set up within the district administration offices and council authorities, with the higher authority being the District Commissioners in the district administration to facilitate censuses operations at sub-national levels. Within these the two local authorities, District Census Officers were nominated and their role was to work directly with the Census Office to implement the census activities at district levels.

c. Publicity

Publicity was the strongest area which made the Botswana 2001 Population and Housing Census successful. One of the purposes of census in Botswana is constituency delineation. This gives census a high regard among political and traditional leaders of the country. They therefore assist in publicity and encourage the public to participate in census. Publicity was widely done through television, radio, newspapers, Kgotla meetings (effective in rural areas), or any gathering that could be used. All leaders (Members of Parliament, School Heads, Chiefs, Councilors and Land Board Secretaries) were requested to pass the Census message in all their meetings. Pamphlets were also distributed in schools so that children could pass the census message to their parents. District Census officers around the country represented the Central Statistics during the Census Campaign. These refer to different government employees in the various districts. People were aware of the Census exercise even in the remotest areas of Botswana; they were advised to ensure that they are also countered. Cases of non- response and refusal were very minimal because people were sensitized well on time.

The media showed the President being enumerated. This boosted the people attitude towards census. One of the local brewery company carried a census logo and messages on the two of their famous drinks

(Coke and traditional beer). Newspapers produced census jokes as cartoons. Census personnel had T-shirts, caps and vehicles with census logo.

An incident of negative publicity was observed in Botlalaote in the North East district where a local priest who, it was reported, not only prophesied the coming of census officials but also raised false alarm regarding the fact that all those enumerated will perish. While the enumeration of the village took place with full co-operation from households, this was an important lesson to be guarded against in the main census.

d. Cartography/Mapping

The cartographic exercise was carried out two years prior to the actual population census. Problems were encountered in identifying EA boundaries; hence cartographic inspection was carried out as part of the pilot survey. It turned out that at the end of pilot census, some people were not counted in a few small localities in lands and cattle posts areas, which localities had been missed by the cartographic exercise. Although this was anticipated, but to a very minimal level, efforts had been made to ensure that such localities are identified before the main census, so as to make arrangements for enumeration of all people living in country.

e. Recruitment and Training of Enumerators

Supervisors were secondary and primary school teachers and they were recruited through their school heads by the District Census Officers on behalf of the Central Statistics Office. Posts of enumerators were advertised and these were mostly Form Five (high) school leavers. Training of enumerators was done a week before the Census exercise.

f. Field Work

Field work was much easier in terms of cooperation from the public. The field work took ten days. There were just a few problems of transport and communication in some areas, for instance in some remote areas where there were no telephones.

g. ICT

Television played a very important role in advertising the Census exercise. The department had documented a drama which was frequently played on Television. Radio talk-show and other programmes were also available.

h. Census Data Dissemination

Preliminary results (Stats Brief) was produced a month after census enumeration and disseminated through press release. The Census data dissemination seminar was organized by the Central Statistics office two years after the census. Census analysts were given chance to select topics for analysis and presentation during census dissemination seminar. The majority of these analysts were from local university. Their products are publicized in census analytical report. Stakeholders from Government Departments, private sector and Non-Governmental Organization (NGO) were invited to a dissemination seminar where analysts presented the papers on topics they wrote analytical reports about. Census information was also disseminated through a number of publications, the CSO website, etc.

II. Preparation for next Census

An early preparation of census undertaking is necessary to ensure its success. It should be noted that ideally conditions change so substantially between censuses that each census requires new planning. Proper planning is essential for the successful to fulfill the basic objectives of the census notably to get complete and reliable information within budgeted costs and targeted time frame.

Section A

1. Preparatory Tasks

a. Funding of the Census

The Botswana Population and Housing Census was fully funded by government. The department received technical assistance from United Nations Fund for Population Activities (UNFPA) in the area of cartographic exercises.

b. Legislation for the Census

The Census Act of 1967 provides for a penalty to be imposed upon those who, being obliged to provide information to a duly authorized Census Officer, fail, without reasonable cause, to do so.

c. Development and design of Census Questionnaire

The development of the census questionnaire is without doubt a very elaborate process. A well designed questionnaires and forms are essential for the success of the census. It should be noted that census questionnaire acts as the basic instrument to get accurate and reliable data but if it is not properly designed then census will reveal wrong results. In developing the household questionnaire, some of the following factors will be taken into consideration:

- International requirement (2010 UN Principles and Recommendations for Population and Housing Censuses)
- Selection of the topics to be covered in order not to over-load the questionnaire
- Plans to structure the questions into a logical pattern that would be easy to administer to respondents by enumerators in order to minimize operational errors

d. Preparation of manuals for enumerators, supervisors and District Census Officers

Census manuals will be prepared to guide census personnel during enumeration processes. Manuals are necessary to ensure that census personnel to follow appropriate instructions at all levels and stages of census taking.

e. Publicity and Census Education

Prior to conduct of census enumeration all the people in Botswana will be informed about the exercise through the use of radios, televisions, newspapers, billboards and other gathering (addressed by parliamentarians, councilors and chiefs).

d. Cartographic work

The cartographic exercise will be conducted to satisfy the following objectives:

- To up-date the 2001 Population and Housing Census enumeration areas (EAs) maps in terms of boundaries and sizes by listing all localities by ecological type, all dwellings and recording the number of persons residing in those dwellings.
- To delineate new enumeration areas on the basis of reliable census maps that would be produced to constitute the framework within which an orderly enumeration could be conducted with minimum possibility for over or under-counting.
- To collect information for estimating the number of enumerators and supervisors, in order to determine workloads at enumeration time. The same information is also used to determine vehicle numbers and fuel costs by various districts.

Another point worth mentioning is that Central Statistics Office is currently working on digitizing maps in preparation for 2011 Census. This will enable office to use digitized enumeration area making it easy to document.

e. Training of Census personnel

Thorough training of census personnel such as Enumerators, Supervisors, Technical Officers and District Census Officers will be done to ensure smooth running of Census enumeration.

2. Field Operations

a. Cartographic Inspection

Central Statistics Office will carry out cartographic inspection to assess the level of dwelling coverage for census taking.

b. Census Pilot

A Pilot Census will be conducted in selected areas of Botswana to assess the flow of the questionnaire and problems to be experienced. The criteria in the selection process will be based on the fact that areas, which are likely to pose problems in the main census, could provide a learning experience for which measures can be put in place to avoid it during the main census exercise.

As with all pilot censuses, the main objective of the 2011 Pilot Census will be to assess the adequacy of preparation for the 2011 Population and Housing Census. To the extent that not all the operations of the pilot census were smooth, the exercise will be very useful in directing the course for the main census.

3. Data Processing

Census Office under the Central Statistics Office (CSO) will be provided with computers and other computing equipments to cater for a large data. It should however be noted that census data processing activity (such as tabulations) is normally outsourced from private companies, However the Central Statistics Office will be responsible for manual editing, data entry, on-line editing and provision of tabulation plans and specifications for effective processing.

4. Specialized Analysis by Subject and Dissemination

Botswana Central Statistics Office has a system of census dissemination which involves participation by private, academicians as alluded to earlier.

Section B

1. Cartographic problem

Due to the vast and sparsely population of some areas, people might be missed. However, the anticipation is that availability of digitized maps will reduce the chances of omitting some areas to certain extent.

2. Transport problem

Shortage of transport is anticipated due to limited resources experienced by Botswana government. However efforts are normally being made to allow the Technical Officers, District Census Officers and supervisors to use their vehicles and pay them a fixed amount for the duration of the census.

3. Communication problem

There are still some areas in Botswana where cellular phones are not accessible due to lack of transmitters and therefore it will be difficult to get hold of census personnel during census enumeration. The department then will arrange for radio communication systems to be used.

Ethiopia

Subject: Pre- Workshop Assignment

Country: Ethiopia

Name: Gezahegn Shimelis

Introduction

In spite of Ethiopia's long history modern Population and Housing Census is a recent occurrence in Ethiopia as the first ever Population and Housing Census was undertaken in May 1984 and the second in October 1994. The data from these censuses has been disseminated to various users in and outside Ethiopia in different forms. At present, the Central Statistical Agency is preparing to conduct the third National Population and Housing Census in 2007.

The 1994 Population and Housing Census of Ethiopia

The 1994 Population and Housing Census of Ethiopia was conducted under the auspices of the Population and Housing Census commission that was set up under proclamation No. 32/1992. The commission was chaired by the Prime Minister and the members of the commission were drawn from various relevant ministries. The Central Statistical Agency served as the Office of the Commission (Secretariat). Hence the processing, evaluation and analyses of the data collected in this census as well as its dissemination are the responsibilities of this office.

The vital preparatory activities were carefully planned and undertaken before the census enumeration began. This includes:- cartographic work in the sedentary areas; where, the farmers associations (FAs) in rural areas and urban dwellers associations (UAs) in urban areas were divided into enumeration areas (EAs) with localities 150 – 200 housing units in urban areas and 150 – 200 households in rural areas, as well as about 5-6 contiguous enumeration areas were grouped to form one supervision area; designing and preparation of questionnaires (short and long) and forms; preparation of enumerator's and field supervisor's manuals and a training guide; preparation of code lists and coding instructions; conducting a pilot census; preparation of census tabulation and publication plans; printing of census documents; recruitment and training of census enumeration staff; dispatching of census materials; launching of massive education and communication campaign (publicity).

The office also conducted the post enumeration survey (PES) for the evaluation of coverage and possible content errors. The content errors were evaluated by analytical techniques and coverage error was undertaken by using re-interview technique. During the PES an intensive supervision was made by using one supervisor for two enumerators.

During Data Processing the questionnaire were edited, coded and verified in accordance with normal quality control procedures. While the operation of coding, editing and data entry was done, the professional of staff of CSA were involved, in collaboration with other data users, in the preparation of detailed tabulations plan. A national co-census was reached in preparing the comprehensive list of tables. Also before launching into producing main tables, the summary data sheet was processed to give preliminary results of the census.

The 1994 census results were compiled at regional states levels and national level. Data dissemination seminar was made in order to publicize the census results and its usefulness in the formulation of regional and national development planning.

Plans for the 2007 Population and Housing Census of Ethiopia

Preparatory tasks

Presently, the Central Statistical Agency is engaged in census cartography work for the year 2007 implementation of the 3rd Population and Housing Census. Accordingly, to facilitate the activities of the census cartographic work to demarcate Enumeration Area maps and frames, technical cartography manual and various forms were prepared and checked. In the cartographic work Global Positioning System (GPS) satellite receivers were brought to identify specific points by geographic coordinates to be utilized in the Geographic Information System (GIS). That is, the census maps are “georeferenced” have map coordinates and can be transferred to GIS for further analysis).

In order to assess the quality of the EA maps; the questionnaires, manuals and forms; recruitment and training procedures for enumerators and supervisors; the publicity level achieved; etc a pilot census was conducted in May 2006.

Field Operation

- For the forth-coming census the CSA considers the following points as an important components of the census operation;
- Formulation of census program covering federal, regional and lower levels; including development of appropriate methods and procedure based on the conditions and experiences gained from past censuses and pilot censuses;
- Mapping out detailed working plans on the basis of experience gained.
- Using elementary and high school teachers as enumerators and supervisors, respectively.
- Full use of mass media as well as adoption of other forms of mass education to reach grassroots level.
- Rechecking and updating of the census enumeration boundary before the main census in order to take care of the change in area.

Data Processing

Recently advancement of data capturing technology has enabled some countries to complete socio-economic and demographic data processing in a relatively short period of time than otherwise. The data entry process of the information collected by the previous censuses of Ethiopia took a reasonable time as they were performed manually. As the current population of the country is estimated to be more than 75 million, there is no doubt that it will require more time and data entry personal compared with the earlier censuses. Cognizant of this fact, the Central Statistical Agency has an intention to use scanning technology for data capturing of the third census.

Efficient and timely data capturing through scanning machines demands utilized of appropriate machine, paper, questionnaire design, skilled personnel etc. Based on a request, the UNFPA sponsored higher officials and professionals from relevant departments of CSA to share experience with African countries, which have used the scanning techniques in recent census data capturing. And two teams were formed to visit two countries; Tanzania and Ghana. In general the office learnt that scanning is an excellent instrument for data capturing provided one has a sufficient space conducive for storing collected data, appropriate machine and place for operating, trained manpower is there to handle problems arising during the process, and a standby generator is in place, etc, there is sufficient time. To put all these together in place needs ample time and above all money.

After data capturing through scanning machine is completed CsPro programming will be used for analyzing the data.

Data Dissemination

For dissemination of the census results in addition to providing publication of printed tables and reports the office is intended to use Ethio Info (a database system) for disseminating the 2007 Ethiopia Population and Housing Census Data.

Practicality of the Recommended Guidelines of Population and Housing Census (Revision 2) For Ethiopia

Eskindir Tenaw
CSA-Ethiopia

Ethiopia is a country in East Africa that covers an area of about 1,133,380 square kilometers (437,600 sq mi). It is one of the highly populated countries in Africa. The estimated population of Ethiopia in 2006 is about 75,067,000. Ethiopia has a diverse population, with more than 80 distinct ethnic and linguistic groups. It is a federal republic with nine regional and two city council governments.

Only two nationwide Population and Housing Censuses (the first in 1984 and the second in 1994) had ever been conducted in the country. The third Population and Housing Census is also in progress. It is planned to be conducted in May, 2007.

The practicality, in the context of Ethiopia, of the international guidelines on future Population and Housing Censuses as recommended in revision 2 of the draft Principles and Recommendations for Population and Housing Censuses is given as follows.

1. Regarding Recommended Core Topics

Population and housing Census is a huge statistical operation undertaken by a country in order to provide basic information at grass root levels. Reducing the non-sampling errors is the most significant thing to be taken carefully in providing reliable information in a census. Therefore, the core topics to be incorporated in a census should depend upon the data needs of the country, international comparability, ease and clarity of the questionnaire both for enumerators and respondents and techniques to be implemented for processing the census data (use of the scanning, OMR, etc. technology or the manual data entry system). The following comments on the core topics that are recommended in revision 2 are, therefore, given taking into account the aforementioned basic concepts.

a. Geographical and Internal Migration Characteristics

- In this sub-section place of residence, place where present at time of census, duration of residence, place of previous residence, total population, and urban and rural characteristics are important characteristics in the context of our country.
- Place of birth of native population may be used for investigating internal migration. However, internal migration could well be obtained from duration of residence and place of previous residence characteristics. The proportion of foreign-born population in Ethiopia is also almost nil. Therefore, the place of birth characteristic is not so relevant in the context of our country.

- Place of residence at a specified date in the past may also be so relevant in countries where the movement of people from place to place is so frequent. Since the condition in Ethiopia is not as mentioned above only place of previous residence is sufficient for measuring internal migration.
- From both government and other data users point of view data by locality is not so crucial in our country.

b. International Migration Characteristics

- About 86 % of the population of Ethiopia resides in the rural part of the country and are native-born. The proportion of either foreign-born or foreign citizen population is also almost nil. Therefore, country of birth, citizenship and year or period of arrival in the country characteristics are not priority of the Ethiopian population and Housing Census at least for the coming census.

c. Household and Family Characteristics

- The recommended core topic in this sub-section, relationship to head or other reference member of household, is also core in our country's circumstance.

d. Demographic and Social Characteristics

- All recommended core topics in this sub-section (Sex, Age and Marital Status) are most important for our census.

e. Fertility and Mortality Characteristics

- Children ever born, children living and household deaths in the past 12 months are important core-topics in our context.
- Most of our people are illiterate and couldn't remember date of births of their own children. Therefore, date of birth of last child born alive may not be appropriate to obtain current fertility instead of it children born alive in the past 12 months could be most useful.

f. Educational Characteristics

- All core topics mentioned (Literacy, School attendance, Educational attainment, and Field of education and qualifications) are also relevant for our country. However, for the sake of reducing the content of the questionnaire Fields of education has not been considered as a priority characteristic until now. Moreover, in countries like Ethiopia, where there are a number of written & spoken languages, literacy tests recommended by UNESCO, besides its other limitations, may not be applicable.

g. Economic Characteristics

- Activity status and Status in employment are relevant and easy to obtain whichever technique of data processing is being implemented.
- Occupation and Industry on the other hand are relevant but require coding systems to be arranged in office. However, utilizing the scanning technology in a census is being adapted in many countries of the world. The technology enables to reduce processing time tremendously. It also helps to reduce errors committed during data entry. However, no manual editing and coding is allowed in the office. Therefore, under the current situation if we will use the new technology, occupation and industry will be characteristics to be obtained from a sample survey not from a census.

h. Disability Characteristics

- The core topic, disability status, is a characteristic that was and will be included in our censuses.

i. Housing Characteristics

- Regarding housing characteristics prior importance is given solely for housing units (not for collective living quarters). Therefore, in our censuses information on housing characteristics are collected only for housing units.
- All core topics mentioned in the recommendation except occupancy status are relevant in our country.
- Housing characteristics in our country are being collected only for housing units of sample households.
- Sewage disposal is an important characteristic that should be collected mainly for urban part of our country. But it was not included in the past censuses.
- Among ICT questions the most relevant to our country are access to; functional radio, functional TV and functional fixed/wireless telephone.

2. Regarding Recommended Tabulations

In general all recommended tabulations except for the core topics that are considered to be not relevant from our country's point of view could easily be produced. However, minor modifications on some of recommended tabulations should be made so as to meet the interests of data users in our country. Hence, our suggestions on the recommended tabulation are as follows:

- a. From our country's point of view the following tabulations may not be appropriate
P1.2, P7.1, P7.2, P7.3, H1 and H4
- b. Some modifications are required for the tabulations below.
P1.4 (it should be based on lowest administrative unit instead of locality)
P7.4 (the tabulation could be produced with out period of arrival and occupation)
P6.3 & P6.5 (could be produced without industry)
P6.6 (could be produced without occupation)
P6.7 (could be produced without industry & occupation)
H2 (could be produced without type)
H19 (could be produced without access to internet)
- c. All other tabulations could be produced as recommended

3. Regarding Census Managements And Other Issues

As mentioned above Ethiopia had conducted two successful censuses. In conducting those censuses most of the recommended procedures in managing a census had been well followed. Therefore, including additional recommended issues like on dissemination (publication) techniques of census information all recommended topics could be taken care. Whenever technologically more advanced processing techniques (e.g. OMR) are used greater emphasis should be given on how to incorporate characteristics that are very important but that need expertise supervision in time of coding. Fore instance occupation industry and field of education are very crucial information to be collected in a census however, both of them require coding to be done under careful supervision of experts. OMR technique on the other hand mostly requires pre-coded questions. Therefore, some kind of way outs need to be recommended in the revised document.

Gambia

Recommended Core Topics

1. Geographical and Internal Migration Characteristics

The internal movement of the population has been studied in all censuses since independence. In the 2003 Population and Housing Census, questions on internal migration covered all the recommended core topics except two namely

- place of usual residence
- place of residence at a specified date in the past

In the Gambian context, topics covered by the census and questions asked were arrived at after series of consultations between the statistics office and relevant key stakeholders. Therefore topics covered were relevant, adequate and easy to collect. On the other hand, the above two topics may not be relevant and difficult to collect.

2. International Migration Characteristics

In the past censuses particularly in 2003, variables addressing international migration include nationality, country of birth, previous residence and duration of stay. These covers all the recommended core topics but were collected on the immigrant population with little or no information collected on the characteristics of emigrants. Hence, the core topics were not adequate to fully address international migration.

3. Household and Family Characteristics

Relationship of members of the household to the head was asked in all the censuses. In the absence of the head such relationships were referred to who ever assumes temporal headship of the household including the spouse.

4. Demographic and Social Characteristics

Age, sex and marital status are important demographic and social variables collected on all persons enumerated. Unlike marital status, age and sex were collected on all persons and could be cross-classified with a host of other variables. In our context these core topics were relevant and easy to collect.

5. Fertility and Mortality

The recommended core topics on fertility and mortality were well addressed by the main census instrument i.e. Form A. This particular form was administered to population living in households. In other words, fertility and mortality questions were not asked to the institutional and floating populations. Furthermore, the topics covered and questions asked on mortality do not include cause of death and hence useful indicators like maternal mortality rate cannot be calculated from the census.

6. Educational Characteristics

Education and literacy of the population were priority areas that past censuses investigated. Recommended core topics were well covered in the censuses though not without some problems. In

The Gambia, most people receive Islamic and koranic education through the informal “Dara” system and there was no uniformity to capture this under school attendance.

7. Economic Characteristics

All core topics were covered by the economic questions asked in the censuses. However, it has generally been observed that most married women from rural communities tend to identify themselves as farmers whilst most from urban areas tend to be housewives even though they may be engaged in other economic activities.

8. Disability Characteristics

The disability characteristics of the population were first studied in a census in 2003. In addition to the disability status of the respondent, type of disability and priority ranking where there were multiple disabilities were also asked.

9. Agriculture

Topics on agriculture have never been covered in a Population and Housing Census in The Gambia.

Recommended Tabulations

The 2003 Population and Housing Census report is planned to come out in fourteen volumes each focusing on a distinct thematic area. A detailed tabulation plan for each volume was drawn up and a host of tables were generated accordingly.

Most of the recommended tables in the draft Principles and Recommendations were covered in the 2003 census tabulation plan. However, few of the recommended tables could not be matched with any under our tabulation plan either because such data were not collected in our census or the tables were not relevant in our analysis.

Census Management

The statistical act of The Gambia entrusts the Director of Statistics with the overall management of the Population and Housing Census. Hence, the Director of Statistics in his capacity as Census Controller manages the overall administrative and financial matters of the census assisted by the Deputy Census Controller who is the Head of the Demography unit of the Central Statistics Department (CSD).

At the divisional levels, Divisional Commissioners act as Census Commissioners in their divisions and manages the census funds for their divisions. Census Commissioners work closely with Divisional Census Officers (DCOs) posted in their divisions. The DCOs are normally professional staff from the CSD posted to oversee the entire administrative and technical matters pertaining to the census in the divisions including publicity. Below the ladder are Census District Officers (CDOs) who oversee the supervisors and enumerators in the districts at the actual time of data collection.

A. Experience with the 2003 National Population and Housing Census

Population censuses in the Gambia date as far back as 1881. After that census, it became a tradition to conduct a population census on a decennial basis. However, it was not until 1963 that a simultaneous count of the country’s population was undertaken. The last Population and Housing Census was conducted in April 2003. In addition to the traditional socio-demographic, education and economic data

related to age, sex, relationship, marital status, migration status, literacy, education, economic activity, fertility and mortality data collected in this census, it was decided to include questions on access to the media and disability for the first time in the history of census taking in The Gambia. Below is a detail discussion of all phases of the census;

1. Census Mapping

For the proper management of the census data collection exercise both in terms of resource allocation and assignment of work, as has always been done, it was decided to embark on a census mapping exercise. This entailed the preparation of base maps, updating of existing maps and sketching of maps for new settlements. Work on the mapping began in earnest in the year 2000. Mapping staff were recruited and trained on the job for two weeks in the year 2000. Following that training base maps were prepared in readiness for the field work. Four teams of four personnel were constituted and dispatched to the field. Existing old maps of settlements were updated and new features discovered on the ground plotted on the maps for ease of area identification. During the mapping exercise staff canvassed the whole country updating existing maps and sketching maps for new settlements which exceeded an enumeration area. An enumeration area (EA) was defined as part of a settlement, a settlement or a group of settlements with a population of about 500 persons. EA boundaries were demarcated on the maps based on population estimates made by mapping staff.

As field staff updated maps, the completed maps were sent to the Cartography unit in the office for transfer of the information onto the original maps for safe keeping. By the time the field work was completed, the desk work at the Cartography Unit was nearing completion. The mapping exercise was completed in time for the conduct of the Population and Housing Census in April 2003.

2. Publicity Campaign

As usual prior to the census data collection publicity materials were prepared for the census publicity. Posters featuring the importance of the census were prepared and radio and television programmes planned to enlighten the general public on the importance of the census and the need for their participation. Use of the television for the census publicity was curtailed by costs problems. Rates charged by the national TV were too high for the office to meet, hence it was finally decided to abandon the TV publicity. The radio was used although not as much as previous censuses. Limited use of the radio and the non-use of the TV for the census publicity was an unfortunate situation. Use of these media for the census publicity would have afforded the census project the opportunity to reach out to most Gambians.

The use of posters for publicity was quite extensive. Posters in English and the local languages were distributed by mapping personnel during the census mapping. This was quite effective in that most parts of the country were reached. The importance of the census was depicted in the posters and the populace urged to participate in the census.

3. Pilot Census

In April 2002 a pilot census was conducted to test the census tools and also held the office plan for the census proper. During the pilot census sample EAs were selected from all parts of the country. At the end of the pilot census data collection exercise, teams returned to the office to report on their experiences with the census questionnaires and recommendations emanating from these reports were used to plan for the census in 2003. Prior to the Pilot Census the census data entry screens were developed using CSPro. Data from the pilot census was used to test the data entry screens. The screens were modified where necessary.

4. Recruitment and Training of Enumerators

Traditionally, censuses in The Gambia have closely collaborated with the Department of State for

Education in times of census taking. Teachers, students and lecturers have been reliable partners in census taking in the country. The first phase of the recruitment involved the recruitment of teachers and lecturers who were initially trained to serve as trainers. These personnel were trained for two weeks on the census tools in preparation for regional training of trainers workshops organized to train additional teachers for training of enumerators and supervisors for the census proper. The training was undertaken by a team of trainers of the Gambia Bureau of Statistics. Following this training programme the teams of trainers were dispatched to the regions for training of trainers workshops.

A regional workshop was held for the trainers in all the regions where teachers and some field personnel of the Department of State for Agriculture were trained to serve as trainers during the training of enumerators and supervisors. This training was scheduled to end two days before the commencement of the training of enumerators and supervisors. The training of enumerators and supervisors entailed classroom lectures and a field trial of the questionnaires to enable personnel have hands-on application of skills learnt during the lectures. The day after the end of the training of enumerators and supervisors, teams were dispatched to commence the data collection on April 15 2003.

5. Field Work

Census data collection was scheduled to last about a month. Considering the large household sizes in the Gambia (National average of nine) it was decided to assign each enumerator one enumeration area for the period of the data collection. Supervisors were assigned five enumerators each. The first week of the data collection was meant for the collection of data on housing and the rest of the period was to be spent on the population census. During the housing census households were listed in preparation for the population census. Every administrative district was assigned to a District Supervisor who was charged with the responsibility of overseeing the census data collection at the district level. At the divisional level Divisional Census Officers were appointed to oversee the census in their regions. Vehicles were provided to each District team and enumerators and supervisors with sparsely distributed settlements were provided allowances to hire bikes. This facilitated mobility across settlements and EAs.

Illiteracy levels in The Gambia are very high, hence to facilitate data collection the questionnaires were in English and were administered by enumerators who canvassed EA's.

6. Coding and Data Entry

Since some questions in the census questionnaires were open-ended, there was a need to embark on coding of such questions. A coding team was constituted and began the coding a week before the data entry commenced. The coding also served as an opportunity for the questionnaires to be sorted and arranged in readiness for the data entry. For the purpose of the coding a manual was developed and coders trained on the process. Clear instructions were given on the ordering of the questionnaires and every aspect of the coding.

When it was felt that an adequate number of questionnaires were coded and ready for data entry, data entry clerks were trained on the data entry using CSPro. This training was a hands-on training programme where data entry clerks keyed data collected during the census data collection exercise. Two teams of data entry clerks were recruited for the purpose. One team worked in the morning whilst the other worked in the afternoon.

When the data entry was completed, the data was checked for errors and a team of editors edited the observed errors. The errors observed ranged from structural to content errors which were rectified where possible.

7. Tabulation

Following the cleaning of the data the tabulation programmes were ran and the tables checked for consistency. The programmers worked on this aspect of the job with a team of statisticians. Dummy tables were developed based on the proposed outlines of the census reports. These dummy tables guided the programmers in the development of tabulation programmes. The proposed dummy tables were shared with stakeholders for their comments to ensure that their needs were addressed. Some of the statisticians were later identified to serve as report writers during the report writing phase of the census.

8. Data Analysis and Report Writing

Due to the multi-sectoral nature of censuses, as was done during the 1993 census, the Gambia Bureau of Statistics invited the input of officials from other institutions to work on the census data analysis and report writing. This was aimed at tapping the expert input of other agencies with specialization in the thematic areas covered during the census. For this purpose the report on fertility, children, education, gender and spatial distribution were assigned to personnel in other agencies. As indicated earlier some of the analysts were working with the programmers during the production of the census tables with the aim of ensuring that tables produced were both plausible and addressed issues included in the outline of the reports. Draft reports have been produced for most of the 14 volumes earmarked for the 2003 census and work is progressing satisfactorily with the other reports.

9. Dissemination of the data

Even before the final publication of the census results the office has already been addressing requests of data from a myriad of data users. These data are in the form of tables generated from the final census data set. As indicated earlier, work is in progress on the 14 volumes to be published from the census results. These volumes are as follows:

1. Compounds and Buildings/Structures, Volume 1
2. Fertility Analysis and Evaluation, Volume 2
3. Mortality Analysis and Evaluation, Volume 3
4. National Migration Analysis, Volume 4
5. Spatial Distribution of the Population and Socio-Cultural Characteristics, Volume 5
6. Housing and Household Characteristics, Volume 6
7. Economic Characteristics, Volume 7
8. Education Characteristics, Volume 8
9. Gender Statistics, Volume 9
10. Settlement Profile, Volume 10
11. Children in The Gambia, Volume 11
12. Disability in The Gambia, Volume 12
13. Report on the Elderly, Volume 13
14. Access to Media in The Gambia, Volume 14

The reports are to be made available to institutions and interested individuals both at home and abroad.

There are plans to disseminate some of the census results through the office website for wider readership. To cater for a largely illiterate population who may not have access to the publications, there are plans to conduct regional dissemination workshops to inform the general public of the results of the census. The radio and TV are also going to be used to disseminate the results. An atlas of the census results has also been produced and would be launched soon.

10. Constraints

A major problem encountered during the 2003 census was the inadequacy of funds. Unlike previous censuses which were largely funded through donor support, this census was largely funded with local resources. Another constraint faced during this census was the lack of trained personnel in areas such as cartography, demography and statistics. The department has over the years suffered from high staff attrition and due to the funding constraints the office has not been able to train personnel to replenish the staff who left the office. Frequent electricity cuts caused a delay in the data processing and also had cost implications.

B. Plans for the 2013 Population and Housing Census

As work on publishing the results of the 2003 Population and Housing Census reaches an advance stage, already the institution is looking ahead on the 2013 Population and Housing Census. Although not much has been done in terms of preparations for this census, some issues are being looked at.

1. Census Mapping

Until now census maps have not been digitized in The Gambia making the production of maps cumbersome and time consuming. For the forthcoming census there are plans to digitize maps. There is a general lack of capacity in the area of mapping. To build capacity in this area one official has been sent on certificate training abroad. This is not going to be adequate considering the needs of a census. To supplement currently available cartography personnel we intend to approach UNFPA to provide a technical adviser in cartography. In the past such technical support through the CST has been quite helpful.

2. Other Preparatory Activities

In the past a participatory approach was taken in the development of census questionnaires. Through this process stakeholders have been brought together to develop the questionnaires. This approach afforded stakeholders the opportunity to include questions in the census to address their institutional needs. Since this approach worked well in previous censuses, there are plans to adopt the same approach for the 2013 census. The consultative process on the contents of the forthcoming census is expected to commence in 2008.

In view of the funding problems encountered during the 1993 Population and housing Census, there are plans to begin a rigorous campaign on fundraising in early 2009. This is necessary in view of reduced donor support to census taking in The Gambia. Regarding legislation, a new Statistical Act came into force in 2005 which addresses issues related to census taking. With this new enactment, it is hoped that the 2013 census would be conducted within an appropriate legal framework.

Ghana

GHANA STATISTICAL SERVICE

EXPERIENCE WITH 2000 POPULATION AND HOUSING CENSUS OF GHANA

Introduction

The 2000 Population and Housing Census (PHC) of Ghana was the fourth post independence Population Census in Ghana. The earlier 3 post independence censuses did not collect detailed information on housing. The 2000 PHC was therefore the first time Ghana collected census information on both population and housing

Implementation strategy

1. *Formation of Census Committees*

For the effective implementation of the Census programme, census committees were formed at the national, regional and district levels. The committee at the national level (National Census Steering Committee) comprised of ministers of ministries that were connected with the Census in one way or the other. Some of these ministries were Finance and Economic Planning, Information, Education and Interior. Personnel from the Census Secretariat also served on this committee. Functions of the committees included the mobilization of resources for the effective implementation of the census, sensitization, and coordination.

The Regional and district level committees were a replicate of the national committee. Their functions were therefore similar to the national committee and comprised of departments of those Ministries, departments and agencies that were represented at the national level. Their main function was to mobilize resource at the local level to support the census field operations.

The Regional Ministers chaired the Regional Committees while the District Coordinating Directors chaired the district level committees

2. *Cartographic work*

Cartographic work for the census started in 1994. The untimely release of funds delayed the demarcation exercise until 1999 when it was completed. The cartographic work was done using the traditional method which involves map sketching in the field and printing E.A. maps using diazo machines. Field mapping personnel for the exercise were recruited, trained and sent to update the existing geographical file enumeration area maps.

To ensure harmony of the district boundaries and avoid omission and duplication of enumeration areas, all the teams moved together from one region to another to carry out the mapping exercise.

3. *The publicity campaign*

Organizers of the census took publicity seriously if the census programme were to be successful. Consequently a national census publicity team was formed. The team was headed by the honorable Minister for Information at the time. This was replicated at both the Regional and district levels with the Information Services Department spear heading the campaign. Publicity was done by using both the print and electronic media. This involved the use of Jingles, Slogans, posters, pamphlets, mass meetings, etc.

Various drama groups were contracted to support the programme. TV talk shows were organized at both the national and regional levels in both English and the various local languages; Radio discussions in English and the local language were also used. The various religious groups also supported in publicizing the census. Mobile vans with public address systems were used in the rural areas. The use of banners, billboards and stickers carrying various messages were also employed. Well designed and colorful promotional materials with the census slogan in the form of brochures, flyers, car stickers with the census logo were printed and distributed. The logo was produced on ID cards and T-shirts for census officials. All these were done with the aim of attracting the public's attention to the census process and officials.

4. *Recruitment and Training of Field Personnel*

Training of field personnel started with a one a week training of Regional and District Coordinating Directors who were to act as Regional and District Census Officers respectively. Also included in the training was the Regional Directors of Education because most field personnel were to come from the Ghana Education Service. Participants were taken through the census instruments (Questionnaires, Enumerators and Supervisors manuals, etc) and mode of recruitment of the field personnel, their training and how the field work was going to be undertaken generally.

Field personnel, mainly from the Ghana Education Service were recruited all over the Country and trained at the district level for the field work. The training of Supervisors lasted for 2 weeks whilst that of interviewers lasted for 9 days. Because participants were mainly teachers and because schools were in session, it was not possible to have a continuous training. Training was therefore spread over 3 week ends. Participants reported to their district capitals where the training was being done on Thursday evenings and returned to their stations on Sunday afternoons. Both enumerators and supervisors were taken through the questionnaires and the other census instruments. Assessments were conducted and participants who were found to be lacking in understanding the questionnaire and did not also pass the assessments were dropped at the end of the training. This was possible because in each district more people were trained than was actually required.

5. *Field work*

Field work for the 2000 PHC started on midnight of 26th March 2000. 26th March 2000 was therefore the census night. It lasted for 3 weeks. Each enumerator was assigned one enumeration area (E.A)

Since enumeration is the major stage of the census process, as the success of the whole census operation depends on the quality of the data collected from the field. Fieldwork included listing the structures, census night activities and enumeration of different categories of the population.

Before particulars about persons who qualified to be enumerated were recorded, a complete list of all structures /buildings and housing units in the various enumeration areas (E.As) were compiled. This was necessary to help enumerators know the number of structures and housing units in their EAs, and also to serve as a guide in preparing itineraries for the main enumeration. For successful execution of their duties. Enumerators were provided EA maps, EA Description (PHC 2), Enumeration Visitation Record book (EVR), White chalk and note pad.

Enumeration of floating population began immediately after midnight of 26th March 2000. After the successful completion of field enumeration the completed questionnaires were collected and scrutinized by the teams' supervisors and the necessary corrections effected. The enumerators completed EA enumeration result sheet (PHC 3) for each EA and immediately dispatch them to the census secretariat through their supervisors. Final summary sheet (PHC 4) forms were filled for each EA (for urban and Semi urban) and localities for the rural scattered EAs and added to the completed questionnaires for onward submission to the Census secretariat.

6. *Data capture*

Completed questionnaires were transported from all districts to Accra, the national capital for processing. For the first time in the history of Census taking in Ghana, scanners were used to capture the data.

Following the data collection, questionnaires were checked using automated control system known as CENTRACK to verify that data returned from all EAs have been received. Questionnaires were edited and scanned using Optical Character Reader (OCR) imaging technology. The data was then run through validation programmes.

The problems encountered as a result of the use of this technology were that, apart from the fact that the scanners could not pick some of the bubbles due to poor bubbling by enumerators, the scanners were also inadequate.

7. *Publication and Dissemination of 2000 PHC Results.*

Results of the 2000 PHC of Ghana were released in series. First, with the preliminary results, then a Summary Report of final Results, Special Report on 20 Largest Localities (National, Regional and District), and a Special Report on Urban Localities. The last three were released in March 2002 whilst the first was released in 2000.

Other reports of the 2000 PHC of Ghana that have been released are the Gazetteer (List of all localities with available facilities), Demographic and Economic Characteristics (National, Regional, District) District Profile Report and Special Demographic Analysis Reports.

All these publications have been disseminated at both the National and Regional levels. Releasing the Census results in published form to reach a wider readership and on CD-ROM on request, is an acknowledgement of the vital role dissemination plays in educating and informing the wider public.

Plans for 2010 Ghana Population and Housing Census

1. *Formation of Census Planning Groups.*

Professional staff of the statistical service with responsibility for preparing initial census plans will be constituted by mid-November, 2006. The group will be expected to review the 2010 census project document. A memorandum on the census will also be prepared by the group and submit it to the Government by mid December, 2006.

A National Census Technical Advisory Committee will be formed, comprising of census experts who will serve as a think-tank to advise the government statistician/census coordinator and National census planning committee on the conduct of the 2010 PHC Census field offices will be set up on the basis of the local administrative structure. The region/district census offices will be established in the respective administrative regional/district capitals with the assistance of the Ministry of Local Government

2. *Determination of topics to be covered and the development of instruments*

The National Census Planning Secretariat will hold consultation with major stakeholders both in the public and private sectors and also review topics investigated in the 1970, 1984 and 2000 censuses.

3. *Census Education and Publicity*

A census Education and Publicity committee will be set up to sensitize the public on the impending census so as to ensure effective cooperation.

4. *Cartographic work*

Cartographic work for the 2010 PHC will involve the updating of the 2000 census enumeration and Supervisory area maps. Production of relevant enumeration area maps have started. The cartography work is based on the administrative structure of the country.

To ensure that all field maps are up-to-date, a list of all enumeration area maps used in the 2000 PHC has been prepared. The stock taking revealed that some areas of the country lacked topographic maps. An order has therefore been placed for the purchase of National maps (scale: 1:50,000) showing major administrative divisions, major physical features and location of cities and towns. Thematic maps that show national road network and plans of cities and towns have also been acquired.

An instructional manual for field mapping staff is being prepared. The manual will contain an outline of the organization of the mapping activities, objective and techniques of enumeration area mapping, field responsibilities of the mapping staff and other related activities.

An order has also been placed for the purchase of cartographic mapping equipments and stationary.

The re-demarcation of 56 new districts is scheduled to begin in November 2006 and is expected to take three months. It has been decided to increase the number of field teams for the mapping exercise from 3 to 15 to facilitate work and ensure that the exercise is completed on schedule.

5. *Field operations*

A field operation unit will be set up to see to the effective implementation of the 2010 Population and Housing Census.

Responsibilities of the unit will include:

- the organization and establishment of the necessary institutional framework in the regions and districts
- Develop control procedures and mechanisms to ensure quality control and movement of materials
- Provision of logistical support, particularly the distribution of census materials (questionnaires, EA maps, manuals, stationary, etc).

6. *Data processing*

It is intended that the OCR technology will be used for data capture in the 2010 PHC. Problems encountered with the use of scanners in the 2000 PHC have been identified and efforts will be made to minimize them.

During the 2000 PHC, Optical Character Reader (OCR) technology was used. This was preferred to the Optical Mark Reader (OMR) and computers because the OCR gives images of the scanned questionnaire and can be archived and accessed later without physically handling the questionnaire.

7. *Data dissemination*

The provision of data to users is the ultimate reason behind the conduct of a population census and any survey for which the 2010 PHC is not an exception. Strategies that will be adopted to disseminate data

will involve the use of modern information technology including CD-ROM, dissemination of data electronically through the internet and the Ghana Statistical Service (GSS) website for the 2010 PHC reports. The dissemination will also be done through publishing hard copies of the reports.

8. *Specialized analysis by the subject*

The National Census secretariat will hold consultation with major data users in both public and private sectors to review topics investigated in 1970,1984 and 2000 as well as international recommendations regarding the 2010 round of PHC in order to determine the topics to be covered in the 2010 census.

9. *Data editing*

Editing of the census work will be done to correct some of the errors from the field

10. *Funding*

Funding is being sought from the government, and donor partners for the conduct of the 2010 PHC in Ghana.

With the current increasing taste for data for planning and policy formulation in Ghana, we do not anticipate any reason that will affect the successful conduct of the 2010 PHC.

Ease of implementation of the International Guidelines on the 2010 Population and Housing census in Ghana.

Core topics

Selection of topics to be included in the questionnaire for the 2010 population and housing census in Ghana will involve the review and consideration of :

- Variables covered in the 2000 population and housing census
- Recommended topics from the UN principles and recommendations for the 2010 round of population and housing censuses.
- Data request based on answers and proposals from users in response to the question which will be sent to them

Decisions on topics for inclusion will be based on the relevance of topics and request to the data needs of the country as well as practical considerations of application of concepts on the ground.

In the 2000 PHC the final questionnaire consisted of 15 questions on housing conditions and 20 population questions covering the following areas:

- household characteristics
- geographical location and internal migration
- demographic and social characteristics
- fertility and mortality
- economic characteristics
- literacy and education

The guidelines for the implementation of the above mentioned topics are not too different from that of the

previous censuses that have been undertaken in Ghana. There will therefore be no difficulty in implementing the recommended international guidelines for the core topics for the 2010 census in Ghana.

Tabulations

With regards to the recommended tabulations, production of complex tabulations and lots of tables will increase cost and may delay the timely release of publications. This is usually due to the limited data processing resources available to census implementation agencies. For example, in the 2000 census in Ghana, the preferred configuration of data capture equipment could not be provided fully. Out of the 6 scanners that the office requested for, only 3 were brought which contributed to the delay in the release of the census results.

Basic tables on all core topics will be produced early, whilst special tabulations and customized data request will be later upon request.

Census Management

The 2010 Population and housing census will be Ghana's fifth post independence census. The earlier four censuses (1960, 1970, 1984, and 2000) were conducted based on the six phases of census operations as laid down in the UN recommended principles for population and housing censuses. Since recommendations in the revised UN principles and recommendations for population and housing censuses, Revision 2 are not too different from what is contained in the earlier recommendations, its implementation in the case of Ghana will not be difficult. Efforts will be made to maintain the high standards set in implementing the 2010 PHC in Ghana.

Kenya

1. EXPERIENCES WITH THE 1999 KENYA POPULATION AND HOUSING CENSUS

PREPARATION OF CENSUS INSTRUMENTS

Preparation of census instruments started early enough and involved consulting with stakeholders and subject matter specialists on the list of questions to be asked. Consideration on improvement of previous censuses and UN recommendations and principles guided the process. The instruments developed were; a) questionnaires, b) code sheets, c) enumerators' manuals, and d) supervisors' manuals. The instruments were finalized early for the census.

PUBLICITY/ADVOCACY

Lessons learnt during the 1989 census indicated that the lack of effective publicity and advocacy could undermine the success of a census operation. An effective advocacy and publicity strategy was therefore developed for the 1999 census and encompassed development of materials, effective use of the media, and involvement of all stakeholders in various activities. An advocacy document was developed and translated into Kiswahili to facilitate easier understanding.

Press conferences, regular briefings and interviews were held with relevant officers. A documentary was produced that underscored the linkage between the data provided and development planning. All these efforts led to the public being aware of what was expected of them and hence the success of the census.

A census slogan "Counting our people for Development" and posters were scouted in a competition.

RECRUITMENT AND TRAINING OF ENUMERATORS

Various cadres of personnel were involved in the census. A team of trainers, comprising of highly qualified personnel were the first to be recruited and trained. Senior supervisors and Supervisors were at the second level of recruitment and training. They comprised of professionals and academics. They were therefore capable of training the enumerators effectively. Supervisors trained the enumerators under the supervision of senior supervisors. Enumerators were recruited from areas they reside and had a minimum of fourth form academic level. Census committees were formed at the national and lower levels and facilitated the recruitment of the different cadres.

ENUMERATION

The enumeration exercise went on well within the stipulated period of seven days. Enumeration of population took an average of 3 to 4 days in most parts of the country. Since the exercise was to last 7 days, those who had not been enumerated were informed of where to report.

DATA CAPTURE

The country adopted the use of scanning technology known as intelligent character recognition (ICR). Use of the scanning technology made it possible to have data captured in a short period and hence the release of preliminary results in six months and the basic reports within one and half years.

ANALYSIS

The following publications were produced:

- Preliminary report
- Two basic reports (
- Fertility and Nuptiality Monograph
- Mortality Monograph
- Migration and Urbanization Monograph
- Population Projections Monograph
- Education Monograph
- Labour Force Monograph
- Housing Monograph
- Gender Dimensions Monograph
- Population Dynamics Monograph

DISSEMINATION

Dissemination workshops were held at the national and sub national levels. Among those targeted included: Media personnel, National leaders, parliamentarians, private sector personnel, public sector, NGOs and civic leaders. The census data has been utilized extensively since then.

2. PLANS FOR THE 2009 CENSUS

The next Kenya Population and Housing Census is scheduled in August 2009. This will be the seventh census to be undertaken in Kenyan history, the others having been done in 1948, 1962, 1969, 1979, 1989 and 1999. A Census Office has been constituted to spearhead the process of planning and tracking implementation of the various activities.

Preparatory activities

Under preparatory tasks, we have planned for the following activities:

- Field mapping (which has already started)
- Capacity building
- Procurement of GIS hardware and software
- Design and testing of census tools
- Printing of census tools

Field operations

For successful enumeration in the next census, a number of field operations have been planned. These operations include:

- Publicity and advocacy
- Recruitment and training of field staff
- Distribution and return of census materials
- Logistics arrangements

Data processing

Plans for data processing are being formulated as an integral part of the overall planning of the census.

The need to adopt efficient and effective methods of data capture and processing are critical for the success of the 2009 census. A critical review of the available different processing systems will be undertaken in advance and the method that is fast, reliable and accurate will be recommended.

Dissemination of census results

The overall plan for dissemination is to provide information useful to users to make more informed decisions. The plan will focus on data relevance, quality and timeliness delivery. A wide range of statistical products will be made available in the form of published reports for general distribution, electronic form and post results on the website. The results will be disseminated at the national and sub-national levels to different users and the public at large.

Evaluation of the Census Process

An evaluation of the 2009 population census will be undertaken so as to ensure that the effort and investment of resources were worthwhile. Evaluation efforts on census will be designed to serve the following objectives:

- To provide some measures of the quality of the census data to help interpret the results;
- To identify types and possible sources of error in order to assist in the planning of future censuses; and
- To serve as a basis for constructing the best estimates of census aggregates or to provide census results adjusted to take into account identified errors.

UN WORKSHOP

1. RECOMMENDED CORE TOPICS

a. Population census

The recommended core topics for population and housing census contained in the draft *Principles and Recommendations for Population and Housing Censuses*, Revision, are quite comprehensive. Most of the topics would be of interest to Kenya and covers some of the areas users having been sending requests for information.

Geographical and Internal Migration Statistics

Some of the topics have been covered in previous censuses and would therefore be easy to implement. Kenyan censuses are taken on the basis of “*place where counted*”.

International migration characteristics

International migration is not significant in Kenya so the data has not been captured in previous censuses in the country. Country of birth and place of birth captured under one question.

Household and Family characteristics

It is easier to consider the concept of household and not family. Household characteristics are easily implemented.

Demographic and social characteristics

These are relevant and easy to implement characteristics.

Fertility and mortality

Most of the characteristics would be easy to implement. However, “Household deaths in the past 12 months” may require more serious considerations. Since we are talking of a complete count, there are possibilities of some household deaths being counted in more than one household. This would occur in families who reside in urban centers but bury their dead on the ancestral land.

Educational characteristics

School attendance and educational attainment would be easily implemented. It may however be difficult to implement the literacy component since accurate literacy levels should entail actual assessment; which would be difficult to administer in a population census. Past experience shows that self assessment would normally overestimate literacy levels.

Economic characteristics

In a census setting it would be easy to implement the “activity” and “status in employment”. It would however be too demanding for data to be collected on occupation and Industry though the data is relevant.

Disability characteristics

Very relevant and currently the demand for the data is very high. The country is strongly considering having a component on disability in the next census.

Agriculture

The topic is relevant and there are also requests to have a module in the next census. It may not be considered since it is not considered a priority.

b. Housing census

The housing census is not given as much prominence as the population census. Housing-related topics form a very small proportion of the questions that are included in the census instruments. Though most of the topics suggested in the draft *Principles and Recommendations for Population and Housing Censuses, Revision*, are relevant, it would be possible only to implement a few so as not to overload the questionnaire.

Living quarters

- The information would be relevant though what is collected should only apply to occupied quarters.

Location of Living quarters

- The information is relevant and is captured during the mapping process.

Occupancy status

- Not relevant. The focus would be on dwelling units occupied at the time of census. To capture this information alongside the population census would be at an extra cost.

Type of Ownership

- Relevant and can be implemented.

Number of rooms

- Collecting information on number of rooms is relevant and can be easily implemented.

Water supply system

- Relevant and can be easily implemented. This should however be combined with “The main source of drinking water”.

Toilet

- The information is relevant and can be easily implemented but could also be combined with “Sewage disposal”.

Bathing Facilities

- Not relevant

Fuel used for cooking

- Relevant and would be easy to implement

Type of lighting

- Relevant and easy to implement

Occupancy by one or more households

- Not relevant

Number of occupants

- Not relevant

Type of building

- Relevant and easy to implement.

Construction materials for outer walls

- Relevant and can be easily implemented

Type of tenure

- Relevant and can be easily implemented.

2. RECOMMENDED TABULATIONS

The recommended tabulations are relevant and would not cause a major challenge in implementing them. However, some of the classifications such as; urban agglomerations and localities may have no meaning to us. Others, such as “native” sound abusive (and colonial). We no longer use such terms. The recommended tabulation plan therefore provides the general framework for tabulation. Actual tabulations would be determined after discussion with stakeholders. The response options to most of the questions would also have to be agreed upon in consultation with the stakeholders.

3. CENSUS MANAGEMENT AND OTHER ISSUES

Definitions: Definitions are of particular importance as we prepare for the next census. They are necessary in standardizing census operations and hence comparability within the country and between countries.

Strategic Objectives: Development of strategic objectives forms a strong basis for census implementation. It was critical for the statistical department to develop strategic objectives in its current census project document which would enhance census management.

Management

The principles of census management provided in the draft document are critical in census taking. Of particular importance are the major elements i.e. the six phases that include that include: a) preparatory work, b) enumeration, c) data processing, d) building of databases and dissemination of results, e) evaluation of the results, and f) analysis of the results. All the six elements are relevant and we expect to implement all of them in the next census.

Cross-Cutting and Emerging Issues

We are in the process of identifying data requirements concerning various population groups of particular interest as we plan for the next census. This is important since the need for data has expanded over the years. Of particular focus are data on gender, disability, children, youth, elderly, etc. Furthermore, the Government is committed to meeting local development goals as well as the MDGs and hence the census results should generate some of the indicators on the achievement at different levels.

Promotion of, and Training on, Uses of Census Data.

Promotion of use of census results will form a major activity of the next census. Training programmes will be developed to enhance the use of census data at all levels.

Liberia

Pre-Workshop assignment

1. Experience with the most recent census

Liberia has successfully conducted three (3) Censuses and they are (1) the 1962 Population Census, (2) the 1974 Population and Housing Census and (3) the 1984 Population and Housing Census.

a. Geographic Planning

Prior to the enumeration of the 1984 Population and Housing Census the country was divided into 4,500 enumeration areas (EAs). This was done in two (2) phases: a) collection of geographic data on rural localities, updating of rural base maps, and the EA mapping in the larger rural localities and b) Preparation of the base maps and the EA maps for urban areas.

b. Collection of geographic data on rural localities

This activities include:

- Obtaining clan/township list of localities from administrative heads (clan chiefs, commissioners, and town chiefs) and compare with the one from central office
- Identification of localities on the ground and posting the same on area base map at correct places
- Verification of the spellings of the locality names
- Delineation of clan/township boundaries
- Preparation of large scale layout maps for bigger rural localities having more than 500 persons or 70 structures.
- Counting of structures and classifying them into permanent and semi-permanent, and temporary categories in each locality and
- Depicting infra-structural details like roads, rail ways etc. on the map

c. Preparation of base maps and the EA maps for urban areas

The entire urban mapping was implemented into three (3) phases:

- Preparation/updating of the layout map of the urban places,
- Partitioning of the urban places into community and
- Preparation of detail sketch maps for the individual EA

The teams in both rural and urban areas were composed of cartographers, cartographic assistants and household listing operators.

Publicity campaign

The publicity unit was established in 1984 for the 1984 Population and Housing Census. This unit was responsible for all the publicity activities. The country was divided into five (5) publicity sub-regions and each office had an office responsible for publicity activities. In addition, each county had media personnel who coordinated the activities with the central office.

Recruitment and training of enumerators

The training of enumerators was carried out in two (2) phases:

- a. The training of trainers (TOT) and (b) the training of enumerators.

Five (5) regional coordinators, county inspector, and 64 district supervisors were recruited from the central office and trained in Monrovia for about two (2) weeks. These field staff were deployed into the 12 counties and 3 territories who recruited and trained 900 field supervisors and 4500 enumerators for the field enumeration. The training included classroom teaching, mock interviews and field practices.

Dissemination of the data

Preliminary reports of the 1984 Population and Housing census were disseminated to only stakeholders. The analysis was concluded in 2002 but due to the war, both the hard copies and soft copies of the final tables and the analysis report were either looted or destroyed.

2. Plan for the next census

2.1 The next census is planned for 2008 and preparatory work has already begun. The geographic planning is scheduled to commence in December 2006. The census activities have been grouped in the following phases:

a. Preparatory phase

- Preparation of the census document
- Donor Conference
- Installation of key census staff
- Preparation of questionnaires and manuals
- Preparation of orientations for the detailed thematic analyses plans
- Disbursement of start-up funds
- Procurement of census mapping equipment
- Short term training for census mapping
- Procurement of census data processing furniture and other materials
- Training in demography
- Study tours
- Order for census data processing equipment
- Identification/preparation and installation of main data entry and processing tools

b. Census Mapping phase

- Inventory and critical analyses of existing mapping information
- Consensus on the basic approaches to census mapping and the questionnaires
- Short term training abroad on census mapping and GIS printing of existing maps for updating on the field
- Delivery of census mapping equipment
- Launching of census mapping activities
- Training of field staff
- Publicity for census mapping

- Conduct of census mapping on the field
- Updating of maps for the pilot census
- Final editing and production of census maps
- Participation in training of field enumerators
- Production of EA maps for post enumeration survey (P.E.S)
- Training of local staff in the production of digitized maps
- Digitization of hitherto uncovered areas
- Storage of GRS data
- Production of thematic maps
- Participation in the production of the geo-demographic atlas of Liberia
- Preparation of the final report on the census mapping phase

c. Pilot Census Phase

- Selection of areas to be covered by the pilot census
- Printing of draft questionnaires and manuals for the pilot census
- Publicity for the pilot census
- Recruitment and training of field staff for the pilot census
- Field enumeration in the selected areas
- Data processing of pilot census data (coding, data entry, tabulations)
- Analyses and evaluation of data and information from the pilot census
- Proposal of requisite modifications to questionnaires and field approaches
- Revision of questionnaires, manuals computer programmes and maps
- Preparation of the detailed report on the pilot census phase

d. Census Enumeration Phase

- Printing of the final versions of questionnaire and manuals
- Workshop at LISGIS for Regional Officers and County Representatives
- Training for District Supervisors at the 5 Regional offices
- Publicity and sensitization campaigns for the census
- Recruitment and training of enumerators and team leaders
- Placement of staff on the field
- Distribution of supplies on the field
- Enumeration area reconnaissance and household listing
- Field enumeration
- Assembling of questionnaires and other field materials
- Return of questionnaires and materials to Monrovia
- Inventory, registration, verification and manual compilation of results
- Archiving of questionnaires and other information
- Processing and publication of preliminary results
- Preparation of a detailed report on the preliminary results
- Preparation of detailed report on the enumeration phase
- Preparation of the detailed report on the PES phase

e. Data processing phase

- Design of the approaches to coding and data entry
- Design and printing of coding and data entry manuals
- Delivery and installation of data processing furniture

- Delivery installation and testing of data processing equipment
- Installation of data processing, editing and tabulation programmes
- Recruitment and training of coding staff
- Conduct of census coding of census data
- Recruitment and training of data entry staff
- Conduct of census data entry and editing
- Census data file cleaning
- Production of the stabilized census data file
- Declaration of the final results of the census
- Participation in training of data analysts in the production of tabulation
- Participation in the production of tabulations for the thematic analyses
- Production of statistics tabulation
- Preparation of the detailed report on the data processing phase

f. Data Analyses Phase

- Identification of national expertise for thematic analyses
- 1st workshop to launch the thematic analyses
- Finalization of the chapter on the context of each thematic and tabulation plans
- Workshop on tabulation programming (CSPro, IMPS)
- Production on tabulation by theme and computation of key indicators
- Period of individual report writing by theme
- 3rd workshop for examination and validation of reports by theme
- Incorporation of requisite corrections/modifications by analysts
- Identification of national expertise to serve as resource persons to jet the reports
- Photocopying and distribution of reports
- Final workshop on thematic analyses in Monrovia
- Incorporation of modifications by analysts
- Harmonization of format and presentation of reports
- Preparation of country, monographs
- Participation in the design and preparation of the geo-demographic atlas
- Preparation of the detailed report on the data analyses phase

g. Results Publication phase

- Publication of preliminary results
- Publication of final results
- Printing of statistical tabulations
- Publication of synthesis results in form of folders, flyers, chalks, maps, etc.
- Printing of synthesis report on the thematic analyses
- Printing of thematic reports
- Printing of Regional Monographs
- Printing of demographic Atlas
- Printing of the final report on the execution of the census project

h. Results Dissemination phase

- Presentation of preliminary results

- Presentation of the final results
- Preparations of the seminar for presentation of thematic reports
- Final national seminar for presentation of thematic reports
- Regional seminar for presentation of thematic reports and regional monographs
- Holding of seminars, talk shows, round table discussion on the results of the census

2.2 The total cost of the census project is US\$4,838,463.00. Out of this amount UNFPA has committed US\$1,000,000.00 and the Government has also committed US\$400,000.000 (US\$100,000.00 each year for the next few years). There is a funding gap of US\$3,438,413.00, which is anticipated to be a major problem if other donors do not contribute.

The 14 years civil war contributed seriously to the brain drain of this country, most of the trained staff are still in neighboring countries while others were killed. As a result, there is a serious shortage of trained main power across the country. Therefore there is a need for technical assistance for this project.

Mauritius

Pre –workshop assignment B: Census methodologists

B1 and B2 - Recommended core topics and tabulations

1. Population Census

1.1 Geographical and internal migration

1.1.1 Core topics

Out of the seven core topics on geographical and internal migration, four were considered at the past census, namely: Place of usual residence, Place where present at time of census, Locality and Urban/Rural. These will be maintained; no difficulties were faced with these questions. The relevance of the other three topics is discussed below.

Place of birth: Mauritius consists of two main islands, the island of Mauritius and the island of Rodrigues. It would be relevant to collect such information at island level so as to enable an estimation of internal migration between the islands. It would not be relevant at locality level however, since Mauritius is a small country.

Duration of residence in locality: Mauritius is a small country of around 1800 square kilometers and therefore this question on duration of residence in locality is not very relevant but it could be relevant at island level as mentioned above.

Total population: The groups mentioned at page in the manual Principles and Recommendations for Population and Housing Censuses, Rev 2, are not applicable to Mauritius. There is therefore no need to compile this information.

1.1.2 Core tabulations

Tabulations P1.1 to P1.4 will be considered. As regards, P1.5 and 1.6, these will depend upon the questions on place of birth and duration of residence in locality as discussed above.

1.2 International Migration

1.2.1 Core topics

Out of the three core topics, the one on citizenship was asked previously and will be maintained.

The questions on country of birth and year/period of arrival in the country do not appear to be directly relevant. They will be asked if there is a strong need from users.

1.2.2 Core tabulations

The four core tabulations depend on whether the questions on country of birth and year/period of arrival in the country will be considered.

1.3 Household and family characteristics

1.3.1 Core topics

The question pertaining to the core was set at the past census and will be maintained. No difficulty is envisaged.

1.3.2 Core tabulations

All the tabulations will be prepared.

1.4 Demographic and social characteristics

1.4.1 Core topics

All the three topics are very relevant and will be considered.

1.4.2 Core tabulations

Given that the core questions will be asked, it will be possible to prepare the 2 recommended core tabulations.

1.5 Fertility and mortality

1.5.1 Core topics

Only the question on number of children ever born will be retained. The other questions are not relevant given that vital registration is complete in the country and reliable estimates of fertility and mortality can be obtained from there.

1.5.2 Core tabulations

Only the table P5.1 on number of children ever born will be possible. The other core tabulations are not relevant for Mauritius.

1.6 Educational, economic and disability characteristics

1.6.1 Core topics

All the topics are very relevant and will be considered. These topics were considered at the past census and no difficulty was faced.

1.6.2 Core tabulations

All the tabulations are very relevant and will be produced.

2 Housing Census

2.1 Core topics

Out of the 35 topics, two will not be considered, namely: Main source of drinking water and age and sex of household head/reference person.

Information on main source of drinking water is not very relevant since the large majority of the population have access to piped water; at the 2000 census it was found that 84% of households had piped water inside the house.

As regards information on age and sex of household head/reference person, this will not be asked at the housing census since it is obtained at the population census. Upon matching the records of both censuses, it is possible to obtain such information and to tabulate according to variables at the housing census.

Information on availability of ICT devices is very relevant in the current context given that Mauritius is aiming to make ICT the fifth pillar of its economy. This will most probably be included in the next census.

2.2 Core tabulations

Except for ICT and main source of drinking water, all the tabulations are possible and will be produced.

As mentioned above, the information on main source of drinking water is not relevant. As regards ICT, the production of the tables will depend on whether the questions are asked at the next census.

B3 – Census management and other issues

1. Introduction

The issues pertaining to census management are very relevant and important; almost all of them were taken into consideration in the past census. At the next census, all of them will be brought on board except for voluntary pilot tests and contracting out on which a decision will need to be taken depending on the situation during the period around census taking.

2. Census tests

Voluntary pilot census tests were not conducted at household level at the past census; the possibility of doing voluntary pilot tests was not covered by law prior to 2001. As from April 2001, a new Statistics Act, the Statistics Act 2000 is in force and it provides for the conduct of pilot surveys. It is therefore possible to conduct census tests on field but this possibility has not yet been looked into at the office.

3. Contracting out

As regards contracting out, data capture for the past census was outsourced to another government organization since the Central Statistics Office (CSO) does not have its own full-fledged IT department and personnel capable of undertaking data capture activities. However, it has been highlighted that transfer of questionnaires from the CSO to another department can pose problems relating to security and confidentiality of the data, particularly during transportation. Further, given the problems faced at the past census regarding delays in editing and coding as well as data capture, outsourcing to a private company could be a solution but there are implications in terms of data security and confidentiality which have to be looked into very carefully.

Pre –workshop assignment C: Census managers

CI -Most successful activities related to the latest Census of the Mauritius

1. Introduction

The latest Housing Census was conducted in Mauritius in February 2000 and the Population Census in July 2000.

Among the series of activities related to the census, the most successful ones are described below.

2. Census organization

The office organization and the field organization were the strong points in the organization of the previous census.

Office organization

A full-fledged census unit, whose main task was the planning and execution of Census 2000, was constituted in 1999, when census planning started. The unit, which included officers involved in cartographic work, fell under the responsibility of a Senior Statistician. The composition of the unit by grade was as follows:

- 1 Senior Statistician
- 3 Statisticians

- 5 Senior Statistical Officers
- 50 Statistical Officers/Clerical Officers (mainly involved in editing and coding of census questionnaires)
- 2 office attendants

Once the project was completed, the division was dissolved; however, one Statistician and one Senior Statistical Officer remained to constitute a core census unit, whose task was to ensure the optimum and continuous utilization of census data.

Field organization

The field force consisted of about 6,225 officers who were recruited from public officers to work on a part-time basis for the census field operations. The field operations were performed outside office hours, mostly on Saturdays and Sundays.

The Chief Supervisor was responsible for the whole field operation in the country. He was supported by two Assistant Chief Supervisors. Seventeen Senior Supervisors worked under the direct supervision of the Chief Supervisors and each Senior Supervisor had the charge of about eight Supervisors and 60 Chief Enumerators for the Housing Census, and an additional 300 Enumerators for the Population Census. A Supervisor had about seven Chief Enumerators and 36 Enumerators working under his supervision.

The Housing Census enumeration was carried out by the 1,029 Chief Enumerators, each of whom had to control the work of about 5 Enumerators at the Population Census.

3. Training of field staff

Training of field staff is of crucial importance for the success of any census or survey. In the case of the 2000 Census, training activities were well planned and carried out in such a way that the instructions were made clear to all staff concerned.

Training of field staff for the 2000 Housing and Population Census started in January 2000 with the training of Senior Supervisors by the Chief Supervisor. Senior Supervisors were given instructions on how to carry out their duties, especially with regard to supervision and quality control of fieldwork, and timely transmission of census documents to the office. The Senior Supervisors, in turn, trained the Supervisors and Chief Enumerators. Formal and informal training sessions were supplemented by informal meetings where Senior Supervisors and Supervisors ensured that instructions had been understood.

Furthermore, a review of the situation was made during weekly meetings of Chief Supervisors and Senior Supervisors where problems encountered on field were discussed. Instructions were then promptly given to the other field staff.

4. Quality assurance of field operation

Quality assurance is another area which went on successfully at the latest census.

In order to ensure that the information collected is of good quality, day-to-day control was exercised on the fieldwork. Supervisors had to accompany each of their Enumerators in the first visits to ensure that interviews were done according to instructions and that all concepts were clearly understood. The supervisors also had to check all completed questionnaires to ensure that the quality of the work was satisfactory. Surprise field checks were also carried out.

5. Tabulation of data

Tabulation of data can also be considered as a strong point since this was done for the first time at the office without any external assistance. All the tables were produced using the CENTS module of the software Integrated Microcomputer Processing System (IMPS).

C2 - Plans for next Census

1. Proposed calendar of activities

The proposed calendar of activities for the next Housing and Population Census scheduled for 2010 is given below:

Activities	Proposed date
<i><u>Preparatory tasks</u></i>	
<i>a. Cartographic field work</i> (allocation of workload to field staff, preparation of field maps and geographical codes)	Jan 2008 to Dec 2009
<i>b. Legal instrument</i> (agreement by the government to carry out a census, approval of regulations by President and gazetting)	Mar 2008 to Nov 2009
<ul style="list-style-type: none">• Housing Census• Population Census	Mar 2008 to Apr 2010
<i>c. Questionnaire preparation</i> (Discussion with stakeholders regarding their needs and preparation of questionnaires)	Jul 2008 to Nov 2009
<i>d. Preparation of Census Guide</i>	Dec 2009 to Feb 2010
<i>d. Preparation and dissemination of publicity materials</i> (video and audio spots and communiqué in the media)	Aug 2009 to Jul 2010
<i>f. Printing of Census questionnaires & documents</i> <ul style="list-style-type: none">• Housing Census questionnaires• Population Census questionnaires	Jan 2010 Feb to Apr 2010
<i>g. Preparation of instruction manuals:</i> <ul style="list-style-type: none">• For field staff• For editing and coding	Dec 2009 Jan. to Apr 2010

Field operations

- | | |
|--------------------------------------|-----------------|
| a. <i>Recruitment of field staff</i> | Jan to Jun 2010 |
| b. <i>Training of field staff:</i> | |
| • Housing Census | January 2010 |
| • Population Census | May 2010 |
| c. <i>Census enumeration</i> | |
| • Housing Census | Feb to Apr 2010 |
| • Population Census | July 2010 |

Data Processing

- | | |
|--|------------------------|
| a. <i>Editing and coding:</i> | |
| Housing census | March to May 2010 |
| Population census | Aug 2010 to June 2011 |
| b. <i>Design and testing of system</i> | |
| Housing census | March 2010 |
| Population census | June 2010 |
| c. <i>Data Entry</i> | |
| Housing census | March to June 2010 |
| Population census | Sept. 2010 to Jan 2011 |
| d. <i>Data Validation and cleaning</i> | |
| Housing census | April 2010 |
| Population census | Oct. 2010 to Feb 2011 |
| e. <i>Tabulations</i> | |
| Housing census | June to Aug.2010 |
| Population census | Mar to Apr 2011 |

Dissemination

- | | |
|-----------------------------------|--------------------|
| a. <i>Publication of results:</i> | |
| Housing census | Sept. to Nov. 2010 |
| Population census | May to June 2011 |

2. Possible problem areas

The activities related to editing, coding and data capture did not proceed smoothly at the last census. The office had to rely on staff recruited by the Ministry of Civil Service for the editing and coding exercise and fewer than required staff was made available at the start of the work. Further, there was a high staff turnover thus resulting in delays which had to be caught up by resorting to overtime and this led to an increase in the budget.

As regards data capture, this was done by the Central Information System Division of the Ministry of IT

and very often the census work was not given priority over other work thus resulting in delays.

It is envisaged to resort to electronic data capture at the next census. It is expected that this will smooth out the problems encountered at the previous census regarding coding and data capture. However, the office has no experience on the use of electronic data capture. In order to achieve the desired results therefore, proper planning will be needed and the questionnaire design will have to be extensively tested before.

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Central Statistics Office
MAURITIUS

October 2006

Mozambique

MOZAMBIQUE'S STATEMENT (1)

1. Background

Mozambique carried out its first post independence population and housing census in 1980. The second census has been planned to carry out in 1990, but because of various years of civil war, the census was done when it ended, i.e. in 1997. Therefore, the country has not yet carried out population and housing census during the 2000 round; the next census will take place in 2007.

Up to now Mozambique did not experience on the Principles and Recommendations for population and housing census (revision 1). What is expected is that the country will go straightforward in experimenting the *Principles and Recommendations for Population and Housing Censuses, Revision 2*.

2. Principles and recommendations for population and housing census

2.1 Recommended core set of outputs

In our on going 2007 census preparation and questionnaire design, all 9 main core recommended topics are covered in our census questionnaire and have been tested in recent pilot census which went out during the two first weeks of this October (1-15/10/2006). But in some main topics we have sub-topics, which we did not include in the census questionnaire, these are as follow.

- a) Duration of residence, because of difficult that come out in defining time spin that people spent in the place where are living, we did not include this topic in our census questionnaire. We think that it is extremely difficult people to remember well the time reference period.
- b) National or ethnic group, this topic is partially included in the census, we do not collect data based on ethnic group, and meanwhile, we ask people what is there race or origin.
- c) Date of birth of last child born alive, as a majority of women in Mozambique is illiterate, it will be very difficult to collect reliable data on this topic, and therefore this topic also was not included.
- d) Year or period of arrival, this question was not included. Maybe we should reconsider this question, which is very important form measurement of international migration, once the number of foreigners in Mozambique is increasing in every year.
- e) Rent paid, we just ask people whether the house where they are living is rented. But we do not ask them amount of money they people for. It is because we did not consider these aspects as relevant, once a majority of people is living in their own house.
- f) Furnished/unfurnished, this topic was not taken as relevant, therefore was not included, meanwhile, we collect data on ownership of durable goods and agriculture/cattle activities in household, these aspects are considered very important because are thought to be as households poverty predictors.

2.2 Recommended tabulations

The proposed tabulations are considered to be practical, therefore most of them will be easy to implement

from the census results. A few numbers of these tabulations will not be possible to make them from the census results:

- a) P1.5 Population, by duration of residence in locality and major civil division, age and sex, as stated above, we did not include in the census questionnaire the variable duration of residence, that is, in the case of Mozambique, we will not have this kind of table.
- b) P3.5 Population by national and/or ethnic group, age and sex, we will have table with data on people's race or origin, but not on the ethnic group, because we are not collecting data on that basis.
- c) P7.3 Economically active foreign-born population.... years of age and over, by period of arrival, occupation and sex, as we are not collecting data on period of arrival, this proposed table would not be possible to implement. What can be done is to have a table, which can describe the economically active foreign-born population.
- d) H.7 Housing units, by type of housing unit occupied, cross-classified by type of toilet and type of sewage disposal, in our census there is not included question on sewage disposal, therefore, it will not be possible to have this table, but we will have only table on type of toilet.
- e) H.10 Rented housing units, classified by whether space occupied is furnished or unfurnished, and amount of rent paid monthly for the housing unit, cross-classified by type of housing unit, water supply system and toilet facilities. It is completely an applicable tabulation for case of Mozambique, once we do not collect deeply data on rented houses.

3. Census management

For census to be taken out in Mozambique there is the census board, which includes different ministries. This board is responsible for approval of all census activities carried out by the census implementation agency.

Under de census board, there is the census central office. This is technical agency, which planes and executes census activities. Under this agency, follows the provincial, district and locals census offices.

This is the way that the census is managed in Mozambique. National Statistical Office, is responsible for coordinating all technical and administrative aspects.

Namibia

Progress Report on Experience for the 2001 Population and Housing Census and plans for the next census in 2011 – Namibia

Introduction

Namibia has a land area of about 824 000 square kilometers of which divided into 13 administrative regions and a population of 1.8 million as per 2001 Population and Housing Census. The administrative regions are further divided into 107 constituencies. There are 6-12 constituencies per region depends on the regional population size. The 2001 Namibia Population and Housing Census was the second post-independence census. The lessons learned from the 1991 census provided the basis for undertaking this census. Overall, it was very successful. Other than the following constraints: budget, transport, refusals during enumeration, inaccessible areas, boundary dispute problems, underestimation of number of households and payments to field staff, the whole operation was completed according to the work plan. Some of the activities were even completed ahead of schedule.

Mapping

The whole country was demarcated into smaller geographical areas known as Enumeration Areas (EA). During the mapping fieldwork GPS points of all institutional services such as Health facilities, educational facilities, Police Stations, and other important features such as headmen/Chiefs and localities/farms were also taken. Other non-spatial attributes for those features were also collected. Geographical Information Systems (GIS) was established during the mapping exercise. All demarcation and digitization of enumeration areas were done using the GIS that was established. The digital EA and administrative maps were generated and printed using the GIS database. More than 4000 EA's were demarcated during the census and the EA size ranges between 80-120 housing units. The EA's in the commercial and communal areas were allocated less housing units due to the traveling distances between localities.

The census indicators were linked to spatial data and a GIS dissemination Tool was created for the planners at all levels. Other spatial data was also disseminated using the same tool. The National Sampling Frame layer was added to the GIS database and made it possible to update and maintain. The merging and splitting of the EA's after the census was done using the GIS and all Primary Sampling Units (PSUs) were created. GIS environment made it easier to generate PSU maps needed for any survey/study fieldwork.

Publicity Campaign

The Census Publicity Steering Committee was established and played the leading role in providing guidance and support in all aspects of the census publicity. The committee consisted of all media institutions as well as other relevant agencies. The Regional Census Committees were also established in all 13 administrative regions. Such committees played a major role in census publicity in their respective regions in sensitizing and mobilizing communities. The census publicity campaign was very productive. As a result, refusals by respondents were not wide spread. The few that were encountered were resolved through the assistance of community and local leaders on the ground.

Various strategies of publicity such as utilization of local media, pamphlets and posters in all major languages, a census song in all languages was composed and aired in most of radio stations and regional sensitization workshops were conducted in all the regions.

Recruitment and training

Beside the Central Bureau of Statistics (CBS) under the National Planning Commission Secretariat (NPCS) staff, other personnel were identified from other institutions as well as NGO's and they were intensively trained before they were deployed to the regions where they conducted the training of supervisors and interviewers. Mapping clerks who were recruited for cartographic work were used as supporting staff to identify EA boundaries during the census enumeration. The census trainers acted as census regional and constituency supervisors during the census enumeration. The majority of supervisors for census enumeration were mainly primary school teachers while a number of interviewers were all grade 11 learners.

With regard to the enumeration of prison inmates and hospital patients, special interviewers were used for this purpose. Prison staff and health personnel had been recruited and trained for this purpose.

Census Enumeration

A population census can be undertaken using either the *de facto* or the *de jure* approach. The *de facto* requires the enumeration of the population at the actual place of enumeration. This is the approach which was adopted for the 2001 census. The night of the 27th to the morning of the 28th August 2001 was designated as the Census Reference Night.

The interviewers were deployed to their respective EAs about four days before the Census Reference Night of 27 August 2001. This was to enable them to familiarize themselves with their EAs using the maps, which were provided. These four days were also used to identify the households within the EAs as well meeting with the community leaders, who in most cases were to assist them with the identification of the boundaries as well as introducing them to the respondents.

The actual enumeration started on the Census Reference Night. In the case of the homeless and the overnight travelers, it was necessary to make use of Namibian Police. Usually, the night patrols know the areas where the homeless spend the nights. It was also necessary to use the police for the security of the enumerators, since this task started around mid-night.

A Post Enumeration Survey (PES) covered a representative sample of enumeration areas, which was statistically selected in all regions was conducted after the census enumeration. All households in the selected areas were covered. From the manual compilations, the results indicated that the national coverage rate of the census enumeration was 97.8 percent of all households. The regional coverage ranged from 92.6 to 99.7 percent.

Census undertaking commitment by government and other stakeholders

A national census exercise is the largest operation in a country. Although the Central Bureau of Statistics (CBS) under the National Planning Commission Secretariat (NPCS) is the agency responsible for this undertaking, credit for the successful completion goes to all the stakeholders, who in one way or another, contributed to the execution of the census project. Most importantly, the commitment of the Government to this project was the key to its success. Over 90 percent of the whole census budget was provided by the Government. Likewise, the support of the NPCS management to the census operation was very important for the day-to-day execution of the whole programme. The technical support, which was provided by the development partners, played a major role in the execution of the census programme. Other line ministries, other public institutions as well as NGOs contributed in one way or another during the process of executing the census programme. The general public on the ground also played a major role, since without the information they provided; there would have been no census results.

Collaboration effort with national and regional stakeholders

During the enumeration period, it was discovered that some areas in Kunene and Caprivi regions were inaccessible. In the case of Kunene region, this was due to a mountainous terrain. Special arrangements were made with NAMPOWER, who availed their helicopter to airlift the census field staff to enumerate the population in the affected areas. In the case of Caprivi, some areas were flooded, making it even impossible to undertake the mapping exercise before the census enumeration. The EA demarcation exercise was done during the enumeration period, just before the enumeration itself. This was partly made possible through the assistance of the Namibia Police, who provided a motorboat that was used to access some areas along the Zambezi River.

Data processing and Dissemination

The scanning method was used to capture all questionnaires using Eyes and Hands software. Super Cross was used for tabulation plus other statistical packages such as SPSS were also used for data analysis. The scanning method and Super Cross assisted the office to release census data in a shorter period comparing to the 1991 census.

The preliminary report was produced and disseminated at a national workshop through the Internet. The national report and 13 regional profiles were produced and disseminated at regional workshops. All regional stakeholders, local and traditional authorities, attended regional workshops.

The census results were also linked to the spatial data and the GIS tool was created. The GIS tool was disseminated through regional workshops and CDs were also distributed to all stakeholders. The regional workshops included a training demo on how to use the GIS tool.

Plans for the Next 2011 Namibia Population and Housing Census

The lessons learned from the 2001 census will provide the basis plans to undertake the 2011 Population and Housing Census complimented by the UN Principles and Recommendations for Population and Housing Censuses.

Preparatory Tasks:

Mapping

The preparatory work for the 2011 census will start with the pre-enumeration phase activities such mapping that is planned to start in 2008. The mapping exercise will demarcate the PSUs that are based on the 2001 census enumeration areas into manageable size as per urban and rural areas using a GIS database. The mapping exercise will start with demarcation larger PSUs in the GIS office. Once the office work is done, such demarcations will be verified on the ground by field teams in order to come up with boundary descriptions. Since the mapping activities will not list households in an EA but dwelling units, the sizes of the EA's by type will be reduced as follows: Urban EA's from 80 to 100 dwelling units; Commercial areas from 50 to 60 dwelling units too long traveling distances between farms while communal areas will have 60 to 80 dwelling units due to distance as well.

Budget

The preparation of the census budget has started under the budget framework which include the mapping

exercise, buying of vehicles and equipment , conducting user/ producer workshops to discuss the content of the questionnaire, training for development of skills in GIS, cartography and data analysis.

Data Processing

Scanning method will be used for data capturing. Super Cross and other statistical packages will be used for data processing and analysis.

Based on lessons learned the 2001 census, there is a need to improve the completion of questionnaires by the interviewers especially the writing skills because of scanning. The office is planning to develop some skills on analysis of different themes such as mortality, unemployment and migration starting with the 2006 Namibia Intercensal Demographic Survey.

Data Dissemination

The office is planning to use similar methods as per 2001 census with improvement on electronic data dissemination such as using Internet to disseminate all both national and regional reports.

Anticipated Problems

Currently, CBS has inadequate organizational structure that does not IT and Data Processing. CBS is relying on the services of an IT division which is not part of CBS and suppose to assist the whole National Planning Commission.

- The current structure does not include GIS and cartography unit
- The number of staff responsible for census and demographic surveys are not sufficient and need to be increased
- Lack of Regional statistical office which makes regional coordination a bit harder. CBS liaise with the Regional Councils but have also their own activities and priorities

However, plans are underway to improve the organizational structure of CBS to address the above-mentioned weaknesses but the process of restructuring may take time.

Nigeria

PRE – WORKSHOP ASSIGNMENT

Country: Nigeria
Participants: i. Census Methodologist – Ms Ozavize Winful
ii. Census Manager – Mr. Samson O. Olanipekun

INTRODUCTION: This consolidated country statement is presented against the backdrop of the fact that the field work of the 2006 National Population and Housing Census in Nigeria was rounded off only in July 2006. This presentation therefore attempts to relive the experience in the conduct of the last census as the information obtained is still being processed.

A. CENSUS METHODOLOGIST’S REPORT

PRACTICABILITY OF THE IMPLEMENTATION OF INTERNATIONAL GUIDELINES

1. Recommended core topics: We wish to note that many of the recommended core topics were embedded into the various questionnaires (referred to as NPC 0s) used for the 2006 Nigerian Census. We however note that the intention by the United Nations is not to encourage Nations to include all of these in their Census questionnaires. Perhaps because it was the first time Nigeria was conducting a housing Census, some respondents complained about the length of the main Census questionnaire (NPC 01). During the symbolic enumeration of the Governor of Ogun State, Nigeria, on the first day of Census enumeration, he made the remark that if he was a party to the finalization of the Census questionnaire, he would have suggested a reduction in the number of questions in NPC 01 in particular. This observation of Mr. Governor was tested in the field and found to be common among many Nigerians.

The core topics as contained in the draft principles and recommendations are divided into two broad main categories namely Population Census topics and Housing Census Topics.

- a. Recommended Population Census Core Topics

As listed on pages 91-92 of the draft Principles and Recommendations there are twenty six (26) population core topics directly collected and four (4) core derived topics.

In eliciting responses, enumerators faced little or no difficulty with respondents on questions on Geographical and internal migration characteristics. This same assertion applies to the question on International migration characteristics. The questions are indeed relevant as background information on the population. With reference to the questions on Household and family characteristics, the term Head of household is used to conceptualize the household reference person in the 2006 Nigerian Census. The definitions of terms are elucidated in the various manuals of instructions (enumerators, supervisors, coordinators etc).

The Core questions in the demographic and social characteristics were administered with little problems particularly with the item of ‘age’. The illiterate respondents were assisted with the list of historical events (which were given to all the enumerators) to determine their ages. Quite a number of literate respondents, particularly the females, were not forthcoming with their dates of birth and ages.

The enumerators faced difficulty in the administration of fertility and mortality questions particularly in Southwest Nigeria where culture does not allow the enumeration of children in the family. The cultural belief is that if one merely counted how many children she has, she was bound to lose one or

two of them. Moreover, in quite a number of cases, most Nigerians were wary of providing responses to questions on the occurrence of deaths in their households.

The item on the questionnaire on Educational characteristics elicited adequate responses particularly in the application of the concept of literacy. In the Nigerian Census documents, literacy was defined as the ability to read and to write in any language which, going by the content and spirit of the draft recommendation and principles, is acceptable. However, the recommendation to conduct literacy is conduct literacy tests during the Census (which the draft already admits is impracticable) may not be practicable as the Nigerian respondents may resist any attempt to doubt the claims on their literacy levels. Besides, more time (which was a contentious issue during the just concluded Census) would be needed to administer the Census questionnaire. During the 2006 Nigerian Census, enumerators were trained to 'probe' further to determine the levels of literacy of respondents, where they were in doubt, without necessarily expressing that doubt.

The instability that characterizes the labour climate may limit the utility of the data collected on the activity status of respondents. This is due to the short reference period of economic activity. The finding during the census was that even when enumerators were still within enumeration areas, activity statuses of many of the respondents had changed. The implication of this is that most of the respondents who would have been recorded as being economically active during the Census are in reality, unemployed. A longer time frame (Nigerian Census adopted 12 months) may be considered for determining the current activity status of respondents. The question item in the 2006 Nigerian Census questionnaire on occupation allowed the enumerator to record the main occupation of the respondents. There was no restriction on what could be recorded such that a petty trader selling cooked rice had 'cooked rice selling' recorded as the occupation since that was the main task and duty at the time of Census. In determining the status in employment, the census questionnaire has an item on class of worker. This is to determine whether the respondent was a salary/wage worker, casual wage worker, owned work with paid employee, owned work without paid employee or assisted in family work without pay.

In administering the question item on disability status during the Census, enumerators were trained to be careful if they were to successfully elicit responses. They were not to hold any assumptions on the status of the respondents. The difficulty with this is that most disabled respondents did not offer correct information on their status for obvious reasons. Most accurate responses in this regard were offered by disabled respondents who believed that the availability of the information on disability prevalence to Government would result in intervention strategies. The domains in the question item for the 2006 Nigerian Census included the status of upper body functioning.

Respondents were able to provide adequate information on some of the housing census topics investigated during the 2006 Nigeria Census. However, some were not willing to provide these information. It is against this background that each of these topics are examined in this section of the country statement.

We wish to note that the housing census questionnaire was administered only on the regular households. This clarification becomes necessary because the classification of living quarters outlined in the draft document recommended the housing census of hotels, institutions, camps and workers' quarters. Besides, the 2006 Nigerian Census did not elicit information on the location of living quarters. A global application of the concepts of "locality", "urban" and "rural" was made irrespective of the classification of living quarters during enumeration area demarcation.

All the recommended housing questions in the draft document were included in the main 2006 Nigerian Census questionnaire. In fact there was a question item on household facility which elicited response on how many of the listed (and functional) facilities are owned by the respondents. There

were in addition to the recommended item on Information and Communication Technology (ICT) devices recommended by the draft document. It covered quite a number of household facilities to suit local conditions.

As state earlier, enumerators faced some difficulties in administering the housing census questionnaire. It was the first time Nigeria conducted a housing census. Most respondents, particularly the illiterate ones, felt embarrassed by some of the questions, some of them went to the extent of asking what the business of government was with what they called their 'private life'. Some others asked if government was going to provide them with these facilities if they didn't have them. The Nigerian elites were also reluctant in their responses such that some of the information obtained on the topics in the housing census questionnaire were by direct observation by the enumerators.

2. Recommended Tabulations:

The practice in the antecedents of the conduct of the Nigerian Census is to release a provisional figure. That for the 2006 Census is generally and eagerly being awaited by all Nigerians. This is particularly so because of the earlier intention by the government to apply the census result in the delimitation of the country into electoral constituencies.

The recommended tabulations in the draft document are implementable with the information obtained during the 2006 Census. Some of these tables may however have to be generated to accommodate the specific country concerns in the 2006 Census questionnaire. For instance, with respect to tabulation H19, the Nigerian Census questionnaire elicited information on the general access to Computer and not on access to internet. The tabulations in previous Nigeria Censuses were many and various not necessarily voluminous, but met the needs of various data users.

3. Census Management and other Issues:

In planning for the 2006 Nigeria Census, due cognizance was taken of the problems associated with the conduct of past Censuses in Nigeria. There was a stage-by-stage implementation guideline with a set of benchmarks used to guide the achievement of targets. One key element in the conduct of the just concluded census in Nigeria was the interaction between data users and producers at a workshop to evaluate the quality of the proposed Census questionnaire and understand user requirements. The workshop came up with a set of underlining principles to form the basis of what later became the census questionnaire.

The census timetable was established and a chart of operations was generated. The experience however was that some of the targets (in terms of dates for the completion of specific census operation) could not be met as some of them were affected by other national activities and the timeliness of fund releases by government.

In order to foster the involvement of all levels of Nigerian Government in the execution of the 2006 population and housing project, National, State and Local Government Area advisory and publicity committees were formed. These committees mobilized human and material resources at each level to support the census.

A chain of Census Communication activities was also put in place as part of the preparatory activities to engender the wholehearted cooperation and assistance not only of the general public but also of the various organs and levels of government. The National Population Commission depended, to a large extent, on these stakeholders in the conduct of the Census and they contributed a great deal to the human and material resources deployed in the preparation for and the conduct of the Census.

There had been quite a lot of negative mindsets on the conduct of population censuses by Nigerians, consequently, quite a number of transparency-check mechanisms were built into all the stages of the 2006 Census. One of such was the inter-ethnic/inter-regional cross posting of Census Supervisors to alleviate possible misconceptions by making the census process transparent.

In all, the management process considered the need to ensure that the 2006 Census results was reliable enough to pass whatever detailed technical evaluation test it might be subjected to.

B. CENSUS MANAGER'S REPORT

(1) Experience with the 2006 national population and housing census:

It is noteworthy that Nigeria adopted the register-based approach in the conduct of the 2006 national population and housing census in March. Quite a number of activities went into this and the strongest of these are described below:

- a. Census Publicity, public enlightenment and advocacy – Most, if not all, ethnic and regional sections of Nigeria see the census as a contest in political supremacy. Besides, there are a lot of misgivings about the process for the conduct of the census and the utility of the census data. Consequently, the National Population Commission against the backdrop of this, arranged an elaborate census publicity, public enlightenment and advocacy programme aimed at enlisting the interest of the general public and its cooperation. Specific handbills on question items in the questionnaire and on the uses of Census data were produced widely and distributed. Floats were organized in all the nooks and crannies of the country particularly in the rural areas and for hard-to-enumerate groups. The publicity programme of the Census was coordinated by the National, State and Local Government Area Census publicity and public enlightenment Committees which were inaugurated early enough to provide ample time to sensitize the general public. Publicity for the census was conducted to support the various stages of the census. For instance, enumeration area demarcation did not start in any Local Government Area or locality until a sensitization programme of some sort had been carried out. Besides, the National Population Commission employed the services of local town criers particularly in localities where the radio signals (which has the widest media coverage) was not well received.

The main themes in the Census publicity campaign were the relevance of the Census, coverage, accuracy, comparability, coherence, and the usefulness of census data.

- a. Mapping: In the conduct of Census 2006, Nigeria adopted the decision to improve upon the enumeration area demarcation frame used during the 1991 national population census. Line maps were used in 1991 and it was decided that geo-referenced maps be used to enhance the quality and reliability of census data. The geo-referenced map used during the census facilitated full and unduplicated coverage of the country to a very large extent. The enumeration area maps were drawn to scale and a combination of these were generated to form the topographic maps. There were also locality maps and the local government area administrative maps. All of these were produced several months ahead of the census as they were fair drawn and stored in the computer for retrieval. The decision to make use of maps drawn to scale required that the National Population Commission trained the personnel (particularly the enumeration area demarcators) most of who were not technical professionals in town planning and survey. Satellite imageries were also produced to cover a great percentage of the land area of the country. In the course of the mapping all the building within the localities in each enumeration area and their owners were listed. This is to allow for a comparability listing of areas from this census to the next. It also

allows for an accuracy-check to ensure that no locality or land area is left out during census enumeration.

Staff Recruitment and Training: A large number of enumerators were required to conduct the census. The practice before the 2006 Census was to have a team of two enumerators (one male and one female) to cover an enumeration area (EA) during the Census. Quality check of the demarcated EAs showed that some of the EAs were not large enough to have a two-man team cover them during the census. Consequently, a grouping of EAs had to be done and a team of two enumerators in some cases covered more than one EA. In spite of this however, the size of the workforce (enumerators) was still large.

In order to ensure transparency in the recruitment procedure, the National Population Commission placed advertisement in the newspapers to call for applications and the adhoc staff (enumerators, supervisors and coordinators) were selected on the basis of competence. During demarcation of enumeration areas, the personnel was drawn largely from among the regular staff of the Commission while the required balance were recruited from among the non-staff professionals who were screened for competence before they were engaged.

The Census training programme was phased to cover each aspect of the work. The first major training started with the demarcators which was done at national and state levels. The other phases were the pre-tests of census instruments and logistics which also involved the deployment of adhoc staff to selected EAs. Training was also required for those engaged to do the trial census. All these phases of training were organized and conducted against the background consideration of the need to recruit, and effectively train, staff on the methodology for census taking which is the bedrock of a reliable census result.

The various levels of training for census enumeration are the: Master Training, Training of Trainers, Facilitators' Training, Coordinators', Supervisors' and Enumerators' training. For each of these levels of training in all the training centers nationwide, there was a manual of instruction which served as guidebooks to census functionaries not only while on the training but as reference materials during the fieldwork.

The duration of training was determined based on the level of training but more time was allotted to the training of enumerators, supervisors and fieldwork coordinators who were the primary functionaries in the census taking process. Besides, more time was needed to groom them in the new methodology of the conduct of the national population and housing census.

Fieldwork: The activities under fieldwork operations included, but not limited to, enumeration area demarcation (EAD), Map production, Census enumeration and post enumeration survey. In each of all these however, it is important to note that the quality of work depends on the preparatory work. For instance, effective quality check on the maps produced depends largely on the supervisory activities of appropriate competent field staff. Besides, no matter how thorough the fieldwork was, negative reportage of the process could mar the success of the census at any stage. Consequently, elements which could cause failure for the fieldwork include inappropriate training and lack of cooperation by the field staff and lack of commitment to follow due process among others.

In the just concluded census in Nigeria, there were in-built mechanisms to tackle the problems associated with the fieldwork. For instance there was quality monitoring by various national and state level teams of National Population Commission officials while problem field staff were identified and sanctioned. More importantly, and with respect to the quality check of the census enumeration fieldwork, a post enumeration survey (PES) was conducted some weeks after the Census. The matching of the results of the (PES) with the main census is currently on-going to determine the level of under-enumeration of

people and dwellings. Furthermore, feedback was encouraged from the field staff to facilitate the adjustment of procedures for the conduct of a census.

The Use of ICT: – The National Population Commission is aware of the conclusion of international comparability for the data generated from census result. It is thus to applying this to maintain standard classifications in the processing of the census result. This is more so because a reliable data dissemination is dependent on collection of reliable census information. It is an established fact data processing cannot improve the accuracy of census data but the usefulness, quality and timeliness of the release of census tabulations can be guaranteed by proper processing of the Census field returns. Consequently, the field returns from the 2006 Census (particularly, the questionnaires) were scanned to ensure accuracy of recording and their validity using high scale IT hardware solutions. The computer environment is networked and the basic program files are being stored at the national headquarters of the National Population Commission. It is important to note however, that the first stage processing of field data is done at the seven data processing centers in the country from where they are transmitted to the national office. All the staff handling the ICT devices also underwent training and those who had been trained were retrained.

ICT is currently being used in the scanning and the coding of field returns with the use of a coding processes recognized by the computer. This is being careful done to forestall the incidence of, for instance two EAs carrying the same identification codes.

Data Dissemination: The field returns of the 2006 Nigeria population and housing census is still being processed. Consequently, not much could be said of the dissemination of the data from the census result. However, the plan is to present the published tables and reports for wide distribution to the entire world. It should be noted that there are constitutional steps in the release of the census result in Nigeria. The census result is not deemed to be valid unless the national assembly (the national legislative arm of government of Nigeria) accepts it.

Whenever it is accepted, data from the 2006 national population and housing census would be disseminated in hardcopy and electronic form to all the end-users.

2. Plans for the next census:

The Post Enumeration Survey (PES) for the 2006 national population and housing census in Nigeria was concluded in July 2006 (barely three months ago). The implication of this is that planning for the next census may only commence when the 2006 census data has been finalized.

However, the lessons from the ‘on-going’ census are being compiled and would be finalized with the acceptance of its result by Nigerians.

Seychelles

Country Statement for SEYCHELLES

Paper 1

1.0 Background

The Seychelles are a group of 115 islands in the Indian Ocean, spreading over 1 million square kilometers of sea on the South-East coast of mainland Africa.

Records indicate that population and housing censuses have been carried out in the Seychelles as far back as 1791. From 1830 onwards; censuses have been carried out approximately every decade. Below is a table of population counts from the early 70's to the last census taken in 2002.

Table 1: Population counts from censuses 1971 – 2002 and growth rates,

Census year	Female (%)	Male (%)	Total Population	Annual Growth rates (%)
1971	50.2	49.8	54, 695	..
1977	49.6	50.4	61, 898	2.1
1987	50.3	49.7	68, 598	1.0
1994	50.1	49.9	74, 331	1.2
1997	50.5	49.5	75, 876	0.7
2002	49.8	50.2	81, 755	1.5

Source: National Statistics Bureau of Seychelles

Over time, the Census questionnaires have evolved from a simple form recording names, age, sex, social status and a few questions on economic activities and dwelling, to a fairly complex 2-part questionnaire of pre-coded questions that uniquely identifies each resident in the country, with a geographical reference code.

The country is divided up into 5 regions and 25 administrative districts (that also represent electoral areas) and make up 530 enumeration areas of which 494 are inhabitable. Most of the population (87%) lives on the main island of Mahe, and 9% live on the second largest island of Praslin.

2.0 Principles and recommendations for PHC, Rev 2

2.1 Core topics – Population

The core topics under the 9 headings are currently mostly covered by the census, with the exception of the following: *(the reference numbers adopted from the Draft P&R Rev. 2 document).*

a. Duration of residence and place of previous residence are not collected. (i) Urban and Rural – this topic is difficult to derive due to definition related problems. The geographical and social setting makes it inappropriate to apply either the standard of living criterion or the population density guideline. Some relatively high density areas are not necessarily ‘urban’ while some parts that could be considered ‘rural’ are inhabited by the relatively affluent.

b. Country of Birth - The data collection for this item focuses on *Current Nationality* rather than country of birth. Census data is supplemented by *very* good and up-to-date migration statistics which satisfies all national and international needs.

c. Year or period of arrival – Currently not collected, and again the need for international migration data is sufficiently satisfied by other official sources.

d. Relationship to head of household - Until now, the only reference person has been the head of household. However, due to demands for additional data on family structure for the provision of social indicators, the question will be modified to meet the current needs.

e. Fertility & Mortality - Seychelles enjoys the facility of a good and reliable vital registration system; hence the need for fertility and mortality data is met. However, since the topic is also addressed in the census, there is a need for improvement in the administration of the related questions. The data for fertility collected in the past during censuses have been incomplete and the quality below the required standards, such that the data could not be used for useful analysis.

The question on survivorship is one that, if included, would be addressed for the first time.

f. School attendance is derived from current ‘economic status’.

g. Disability data will be collected during census for the first time in the 2010 round. Previously, related data have been sought in sample surveys. The set of 6 core questions developed by the *Washington Group* will be adopted on a trial basis.

2.2 Core topics - Housing details

All the recommended core topics are currently covered

a. The place of residence of each (eligible) person at the time of the previous census is tabulated at district level only.

Comment at 2.1.5 refers. Recommended table 5.1 has usually not been compiled for reasons stated above. The parity question is also not asked to that level of detail (i.e. consistency checks are excluded). Table 5.2 can be compiled if the child-survivorship question is included. Data are obtained from vital registration systems.

3.0 Census products and Data Utilization

In the past, census products mainly comprised of the hardcopy of the main country report, which also includes selected tables at the administrative district levels. Tabulation for smaller areas has only been produced on demand due to the high cost of production.

The main census report actually combines the descriptive analyses, the report on methodology and the administrative details of the census procedure. Other important products that are lacking include technical and thematic reports and demographic analyses such as population projections. The Statistics Bureau lacked both financial and human resources and in some areas, technical expertise, to fully exploit the census data.

At the last census in 2002, the existence of a developing GIS system and an improvement in technical expertise enabled the production of a census atlas containing density and other thematic maps for the first time. The thematic maps touched both population and housing topics. However, the cost of producing such report in color proved quite costly.

With the reorganization of the National Statistics Bureau which became autonomous in 2006, and the plans for improving both its services and products, it is expected that the future dissemination of census results will include electronic formats.

4.0 Census Mapping

The Statistics Bureau acquired orthophoto base maps from the Ministry of Land Use and Habitat (MLUH) prior to the 2002 Census. The aerial photo maps were taken in 1999. The base maps are used to update the land structures (mainly housing) which are drawn manually during field exercises. These are then systematically coded and digitized using the *Arc-View* software. In collaboration with MLUH, work is in progress to digitize the newly defined EA boundaries and new housing developments to produce up-to-date maps for forthcoming surveys and censuses. To-date, structural layers for 8 out of 25 administrative districts have been digitized.

The mapping update has now become a routine exercise, which not only caters for field tools during national censuses and household surveys, but provides listings that serve as the most up-to-date sampling frame and also provides intercensal estimates on the number of houses.

1.0 2002 Census Experience 1.1 Planning

The Statistics Bureau had planned to carry out its population census in 2003. The activities earmarked included a comprehensive mapping exercise that would be carried out during the course of 2002 to i) update the existing sub-district maps to take into account new housing estates, ii) split enumeration areas that had expanded into manageable workloads and iii) make available hard copy sets of maps complete with name listings, in preparation for enumeration that would take place in 2003. However, the dates for the census were brought forward to August 2002. This imposed considerable constraints in terms of time for effective preparations. Furthermore, the fact that important resources such as office accommodation, transport, a plotter and other accessories for the exercise were yet to be procured, bringing forward the census dates necessitated shortening both the time allocated for as well as the extent of some of the preparatory activities. The logistical arrangements also made the census preparation and execution difficult and costly. Eventually the preparation year became itself the census year.

With the availability of a GIS, the Census Office had plans to build a housing geo-database (a database containing geographical data) prior to the 2002 census. From the database, area maps would be produced with useful details for ease of enumeration. Most of the EA's had expanded into unmanageable workloads due to the increase in new housing estates and it was imperative that a new mapping exercise be done prior to the population & housing census. The office had the new advantage of making use of electronic geo-data from the Ministry of Land Use and Habitat in the form of orthophoto maps for the three main islands of Mahe, Praslin and La Digue, where around 97% of the population live.

A complete mapping exercise for the 2nd and third largest islands (Praslin and La Digue) was a priority as the 1993/1994 mapping exercise was only partly completed on these islands. With the increase in housing infrastructure during the past 10 years on both islands, a mapping exercise should have been carried out prior to the 2002 census. However, due to manpower constraints and lack of proper equipment in the GIS unit, this project did not materialize and the mapping activities done for the 2002 census was on a minimal scale. The mapping activities started in April 2002 and the exercise focused mainly on new housing estates since there was not enough time and resources to cover all areas. The delays in acquiring printing equipment and accessories imposed tremendous pressure on the office staff to complete the maps in triplicate copies for use in the field. However, the maps eventually produced were much more useful than those used in the previous censuses.

1.2 Enumeration

The main demographic data for each member of household could be obtained from their national identity cards. Those included names, date of birth, sex, and national identity number (NIN), which provides a direct link to the National Population Database. This facilitated the recording of household members and getting accurate details about age, sex, place of birth (or registration) and Nationality. For those with no ID cards, their names and surnames plus the maiden names of their mother were recorded to help locate their personal details on the population database. Household members who were not present often left their cards behind so that their details could be recorded. Call backs when required, were to get details on exact economic activity for the persons eligible to answer those questions.

1.3 Publicity

Various publicity tools were designed with the aim of stimulating the interest of the public and encouraging their co-operation. A poster was designed depicting symbols of the types of information to be collected for the housing and population census. Posters printed in A3 format indicated the dates set for enumeration. These were posted in selected public places such as at bus shelters, and on notice boards in schools, health centers and Government offices and public departments.

A theme song with a lively tune was also composed and sung by a local artist. This was played on the radio and broadcast in the form of a video clip on the National Television, weeks prior to Census enumeration. The national and other local papers also carried educational and informative articles on the exercise to sensitize the public on the importance of responding cooperatively and helping to make the exercise a success. The wide range of publicity given for the census facilitated the response considerably. At the time of enumeration, most households needed very little explanation regarding the purpose of the exercise as they were already aware of this.

2.0 Plans for 2010 round of PHC 2.1 Preparation

The year planned for the next census is 2010. In preparation the following tasks are foreseen in the preparatory year of 2009.

Update maps, finalize EA sizes, delineate new boundaries;

Update list of institutions and difficult-to-capture groups and other special groups;

Design a strategy for enumeration of population on outer islands; agree on timing and duration of enumeration in consideration of taskforce size.

Design field tools taking into consideration the new topics. Circulate questionnaires to users for comments, discussion and assessment of data needs. Design relevant manuals for supervisors, enumerators, coders and data entry personnel.

Consult with IT personnel for the designing and writing of data processing programmes.

Consult with the various Ministries to ascertain which groups will be available to work as supervisors/enumerators taking into consideration the school calendar. Ascertain required task

force (size) based on number of EA's. Plan a training strategy that allows plenty of time to ensure minimum standards in the capability of field staff to collect high quality of data.

Conduct training sessions. This will be done in stages. The first stage will deal with the use of maps, (as there have been serious problems in certain areas in the past) and the second stage will address the administration of questionnaires, followed by training on data processing.

Design publicity products (posters, scripts of advertisements for media etc.) Seek sponsors (from the private sector) to assist with publicity products.

2.2 Field operations

Conduct pilot test, and assess suitability of questionnaire and data quality. Make the necessary revisions. Use collected data to test data entry programs and validation mechanisms.

Enumerate all special groups, institutions and outer islands. Carry out main enumeration. Conduct a PES

2.3 Data processing

Data processing is to run concurrently with enumeration so that the release of the preliminary results is not delayed. Ideally, different pools of staff are to carry out coding and data entry.

2.4 Products

Apart from the main report, the Bureau is planning, for the first time, to produce other thematic reports by topic from the census data together with a set of population projections, subject to availability of resources, both in financial and technical terms. An updated version of the census atlas is also foreseen.

2.5 Funding

Funding is expected to be mainly provided by the government (a budget of approximately 1.5 million rupees (US\$300,000) is foreseen).

2.6 Data dissemination

The Statistics Bureau will, for the first time be disseminating the census results on CD ROM. This is expected to cut on printing costs of hard copy reports, especially now that reports will be prepared by themes.

2.7 Challenges anticipated.

If funds are forthcoming, the actual census taking is certain. However, the challenges lie in the ability to produce quality products and fully exploit the data. In this, we require at least some technical assistance to process and analyze the data efficiently and in a timely manner. One area of particular concern is the production of population projections.

The relevant software packages are also required for quick tabulation and data manipulation as well as training to use them.

Sierra Leone

EXPERIENCE WITH THE 2004 POPULATION AND HOUSING CENSUS –SIERRA LEONE

CARTOGRAPHIC MAPPING: For every census preparatory work, the cartographic exercise occupies a lot of time and resources in the census calendar. That was very true of the 2004 Population and Housing census of Sierra Leone.

The planning of the cartographic mapping started with the fielding in of a cartographic expert (an international expert.) The expert, assisted by a national counterpart helped in forming a cartographic mapping committee of stakeholders including the university and other line ministries. The primary objective of the committee was to develop a field cartographic manual to be used by field staff in the subsequent mapping exercise. The document was finalized after a series of meetings stating the terms of reference of mapping staff and related equipments to be used.

This was followed by an advertisement and recruitment of the various categories of mapping staff. The recruitment process was a rigorous one identifying mapping supervisors as geography university graduates and mapping assistants as geography high school graduates. This was essential to ensure efficient and reliable mapping output. A practical training was undertaken as well after which 13 teams of five were deployed in the 13 districts. The most modern method of mapping was used utilizing the Global Positioning System (GPS). The primary objective of each mapping team was to map every locality in the country with respect to the following:

- Collect GPS Co-ordinate of every locality
- Collect GPS Co-ordinate of administrative boundaries
- Collect GPS Co-ordinate of health and educational facilities
- Take household quick counts of every locality
- Record GPS co-ordinates & house hold counts on field forms provided
- Describe Enumeration Area boundaries in urban areas

The above information was then used to plot EA boundaries on maps (scale 1:50000 & 1:25000) provided using household sizes of 80-120 in rural areas and 80-100 in urban areas. Every EA was followed by a description and number.

The exercise lasted for 2 years after which final EA maps were printed for enumeration. Census enumerators were then trained in the use of maps and mapping supervisors were deployed to assist them in the process.

The mapping was generally successful as reflected in the overall high quality of census data collected with much ease.

The selection of staff with relevant educational background was critical to the overall quality of mapping information collected. It also reduced time spent on supervision and consequently saving resources for other needed census operations.

The establishment of a mapping committee was timely and necessary as relevant stakeholders made useful input in the development of the cartographic field manual (referred to as the bible) that proved useful in the guidance of the mapping process.

An initial administrative list of all localities in the country was an invaluable asset to the teams. At least they had something they could start off with in addition to what they were given by local authorities. It was also wise to compliment each team with a local guide who knows the terrain better to ease movement between one locality and the next.

The mapping staff was maintained right on to the end of enumeration and some were engaged as supervisors as they were very useful in interpreting the maps they designed when problems emerged

during enumeration.

Some mistakes were however made one of which was to deploy teams in smaller administrative units neighboring each other. This made the quality control procedure much rigorous in producing the final maps. A team should have been placed in a large administrative unit (district) with small sub-divisions (chiefdoms) under its control. The quality control procedure would then have to be limited between districts.

Another mistake was that some enumerators failed to list settlements that emerged after the mapping process. This was to form part of an important database for the cartographic unit to map those settlements as a post census activity. Some maps were not even returned in the process.

PUBLICITY CAMPAIGN: A publicity and advocacy unit was established in the census secretariat funded by The United Nations Population Fund. This unit was charged with the responsibility of handling all publicity relating to the census. A publicity and advocacy expert was recruited for some couple of weeks to advise the unit on how to handle specialized census publicity. A committee was also established comprising of members of the press and electronic media.

The activities of the unit started however late due to funding problems. When commenced, its initial target was the field cartographic mapping. The community needed sensitization on the on-going cartographic mapping and the forthcoming census. Press releases were made in various media publications and various radio discussions held with emphases on the cartographic mapping and its relevance to a successful census. Publicity campaign for the mapping exercise was done in all districts and it was fruitful as mapping staff collected information they required with much ease due to good publicity.

Publicity for census enumeration took a more robust approach and started a couple of months before the actual enumeration. It started with the establishment of census publicity committees in all districts. All sensitization methods were engaged ranging from press releases, radio discussions, drama and billboards. All levels of society were involved in these committees ranging from government to civil societies.

RECRUITMENT AND TRAINING OF ENUMERATORS

Upon completion of the Cartographic field mapping, the total number of Enumerators required for the census was established based on the total number of enumeration areas delineated countrywide. This in turn led to the establishment of the total number of Field Officers and Supervisors to be recruited. The next phase was to determine the criteria required to be fulfilled by the three categories in terms of both educational and professional experience. Training manuals were produced for both supervisors and enumerators. These training manuals contained the basic information required by all categories to fulfil their respective tasks ranging from the various modules dealt with in the census questionnaire to the tasks and exceptional expectations required of them.

Advertisements were made in the print and electronic media for interested and competent individuals to apply for various positions as specified above. The basic criterion set forth for the positions of Field Officers and Supervisors were a good first degree, knowledge in census data collection and must be an indigene or should have spent three years working in the district in which he/she is applying.

For the Enumerators, the prospective candidates must have completed secondary school education and must possess three GCE O Levels or WASSCE, or attended a teacher training college or both and should also be an indigene or should have lived or worked in the district in which he/she is applying for at least three years.

Then Regional Training Coordinators were selected from among the various Directors in the office and charged with the responsibility of coordinating all levels of training in their respective regions. Experts in all areas dealt with in the census questionnaire were contracted to train participants (Field Officers, Supervisors and Enumerators) in modules covering their respective areas. These experts were drawn from the University,

Government ministries and specialised sections within the office like the GIS/Cartography. It was agreed that all the three categories of personnel as stated above were to be given the same training though at various stages as this would enhance the thorough understanding of all the modules to be treated.

Applications were then sent out and interviews for both field officers and supervisors conducted at Statistics Sierra Leone head quarters. Successful candidates were selected.

This field officers and supervisors were the first to be trained. It started with the field officers who in turn helped in training the supervisors.

The training of enumerators started with the full list of all applicants and their supporting documents from each district submitted to the Regional training coordinator. Dates were set for the training of all enumerators in their respective chiefdoms. These training took place with the assistance of the Field officers and supervisors who had earlier been trained. At the end of the training session, final selection tests were conducted based on the training and the successful candidates were finally selected as Enumerators.

FIELD WORK

Census enumeration field operation took place in December 2004 from the 4th to the 19th.

USE OF ICT

In the execution of the 2004 population and housing census, data processing unit was to develop a system design and implement a system encompassing the complete series of operations required for each data processing stage on the census data to conform to the social and economic environment. The main data processing stages were made up of questionnaires organization and batching, questionnaires editing, data conversion to electronic format, data verification, data validation, creation of census database, and generation of census tabulations.

To effectively handle these issues, data processing unit was involved in the planning stage, which includes personnel hiring and organization, selection and purchasing of equipment, analysis and design of census data structure, and activities scheduling and budgeting.

In order to identify and keep track of each census questionnaire, the unit organized and arranged the questionnaires in enumeration number sequence (i.e. Province / District / Chiefdom / Section / EA sequence) in the Questionnaires Store. The Coding Data Processing Officers edited the questionnaires in order of the sequence for further processing.

An option of direct data entry method was considered for data conversion instead of scanning. In addition, IMPS application software was selected for the programming of the data entry, verification, consistency correction, file merge and tabulations systems. SPSS and MS-Excel were used for statistical analysis and graphing.

Data Entry Officers systematically converted the census data into electronic format. Double entry system (verification) was established in order to ensure data accuracy. After a complete conversion of each district data, the data entry officers were swapped to verify each batch in the completed district dataset. After verification, each batch (EA) in the district was then subjected to validation process to check the consistencies of each individual record for correction. The corrected records were used to update the Census Database in MS-Access DBMS and IMPS formats. From time to time, tabulations were produced and analyzed to vet the accuracy and validity of the data.

Because of the above organization and strategies, data processing was completed on schedule. Enough PCs were made available for other data processing and post census activities. Many people gained employment and also new skills were developed from the PCs section option (alleviated post war problems). Data was made available early enough for analysis, planning and development of the electoral boundaries for the 2007 presidential and parliamentary elections.

PLANS FOR NEXT CENSUS

A. PREPARATORY WORK

The next Population and Housing Census will be conducted in December 2014. The Censuses and GIS division has already started preparatory work.

One of the main sponsors of the previous Population and Housing Census was the United Nations Population Fund. This arm of The United Nations made tremendous contribution to the census process. Contacts have already started with this donor in respect of post census cartographic map updating. There are plans to deploy 28 mapping staff in all 14 districts in the country to periodically undertake updating of localities. This will to some extent reduce the workload during the actual census mapping 2014. The GIS division has digitized census maps down to EA level and merged with the census data for analytical purposes. The digital maps will be used as a starting point for the 2014 census cartographic work.

Various modules and tabulations used in the 2004 population and housing census are also undergoing review to suit changing trends in the social and economic environment.

FIELD OPERATIONS

Traditionally, censuses are done in the month of December. Two factors are responsible for this. First, because that is the period when students who are normally recruited, are on holiday. Secondly, December is the period when most people return to their place of birth to spend their x-mass holiday and therefore a convenient time for enumeration. This date will therefore remain the same for subsequent censuses. More funds will be required for the next census as the population is expected to double and therefore more enumerators, field officers and supervisors. This also has a direct effect on the logistics and materials required.

Next census field operation is expected to be more advanced and efficient as coverage of mobile phones in the entire country will be close to 100%. This will greatly ease communication as it is intended to let focal persons be equipped with cell phones.

DATA PROCESSING

Because of the successful manner in which the data processing was done, there are plans to adopt the same methodology. Software and other technical inputs can change for better options in technology. Statistics Sierra Leone has also made a wise decision to retain some of the 120 data entry operators and IT specialists to build on capacity till the next Census in 2014.

SPECIALIZED ANALYSIS BY SUBJECT

The analytical process of the census is just about completed. External and local consultants were hired by the office to supervise the work of various analyst handling specialized subjects like mortality, migration (to name a few). Like all other operations of the census, the organization has decided to train staff in the area of census analysis to avoid hiring consultants in the future.

LEGISLATION

A legislative act empowers Statistics Sierra Leone as the official body for collection, compilation, co-ordination, analysis and dissemination of official statistics. This legislation greatly enhances the institutions effort to co-ordinate and monitor the use of census data for development purpose.

DATA DISSEMINATION

Census data dissemination is a very crucial process as a major objective of the entire process is to make data available to users for development planning. The process will start with the public launching of the census

result that will take place in the capital city and later in the provinces. Representatives from all government ministries and departments, local and international non-governmental organizations, the civil society, educational institutions and other important stakeholders will be represented. Above all the data will be available at Statistics Sierra Leone web site, its library and distributed among major stakeholders`.

B. POSSIBLE PROBLEMS

The main existing and anticipated problems that will hamper the progress of the next census are as follows:

- Funding is viewed as a serious impediment to the success of the next census as the government lacks the capacity to fund in full all the operations as happened previously. There is a possibility that the funding of the next census will be donor driven which will result in a lot of bureaucratic procedures and waste of time especially when donors like the EU are involved.
- Then there is the need to build on the capacity of staff within the office if they are to effectively implement the census operations and limit reliance on external consultants.
- Acceptance of census result in some quarters has always been a problem. Sierra Leone is no exception especially when the census result was launched a couple of months to the parliamentary and presidential elections. Good sensitization on the validation and use of census result is extremely essential to ensure its use.

South Africa

COUNTRY POSITION PAPER INTRODUCTION

South Africa has carried out two population censuses since 1994, in 1996 and 2001. The data collected in these censuses have facilitated informed decision making within the government and private sector, particularly policy formulation and planning. The two censuses were conducted on a *de-facto* basis and enumerated 41 million and 45 million persons respectively.

The next census is scheduled to be carried out in 2011. The planning of this census is currently underway. Lessons learned during the last two censuses are being taken into account as highlighted below. The data collected in census 2011 will enable the government to determine the effectiveness of the policies and programmes that have been formulated and implemented to improve the standard of living of the population and the commitment to deliver on the Millennium Development Goals.

IMPLEMENTATION OF THE PRINCIPLES AND RECOMMENDATIONS

This section focuses on the strategies that will be put in place to implement the recommendations pertaining to core topics, tabulations and census management issues. It also underscores the recommendations made by the African Countries during the meeting held in Cape Town, South Africa in February 2006.

RECOMMENDED CORE TOPICS

The following topics will be covered:

Geographical and internal migration characteristics (paras. 2.44-2.88)

- Place of usual residence
- Place where present at time of census (*Night*)
- Place of birth
- Duration of residence
- Place of residence (*Five years ago*)

The above topics were covered in the last two censuses (see Annexure). The most challenging topic is the one pertaining to usual residence. The questions asked were:

- Does (the person) usually live in this household for at least four nights a week? Census 2001 and
- Is this DWELLING (e.g. house, room, shack, flat) the place where (the person) usually lives i.e. where (the person) spends at least four nights a week)? Census 1996.

The high mobility of the population across the country, particularly young adults will make it quite difficult to use the 12 month rule that has been recommended. The proposed default (place where the person will be at time of Census Night) will also be inappropriate. It will imply both *de facto* and *de jure* status will be the same. The question will be tested during the pilot to ascertain its applicability.

International migration characteristics (paras. 2.89-2.114)

- Country of birth
- Citizenship
- Year or period of arrival

The above topics were successfully covered in the last two censuses. We envisage to have no problems. The information collected has been utilized to profile the characteristics of international migrants.

Household and family characteristics (paras. 2.89-2.114)

Information on relationship to head or other reference member has been solicited from respondents in the last two censuses without any problems. It will also be covered in Census 2011.

Demographic and social characteristics (paras. 2.115-2.146)

- Sex
- Age
- Marital status

These topics have been successfully covered in the last two censuses.

Fertility and mortality (paras. 2.147-2.175)

- Children ever born
- Children living
- Date of last child born alive
- Household deaths in the last 12 months.

These topics will be covered. However, given the experience from the last census, a separate topic on children dead will be included as a quality control measure in order to avoid cases whereby women forget to report children dead making the number of children ever born=children living. The content research that has been done has underscored the need for this probe. The data on deaths in the last 12 months as well as coverage of the vital registration system have been very useful in estimating mortality in the country.

Educational characteristics (paras. 2.176-2.206)

- Literacy
- School attendance
- Educational attainment

Data on school attendance and educational attainment was successfully collected in the last two censuses. Collection of data on literacy is going to pose a big problem. Self assessment approach will not provide the requisite information. There will be a need to have objective testing carried out. This in itself might jeopardize the cooperation of the respondents in the enumeration. Research needs to be carried out to assess the impact of this approach.

Economic characteristics (paras. 2.207-2.324)

- Activity status
- Occupation
- Industry
- Status in employment

These topics were covered in the last two censuses. The biggest challenge has been the poor quality of the data collected. These topics have been targeted for research to understand the problems and how to address them.

Disability characteristics (paras. 2.341-2.370)

The measurement of disability has been a challenge. The questions asked in the last two censuses have not

yielded plausible results as expected by users. We are currently testing the schedule recommended by the Washington Group on Disability Statistics (WG).

RECOMMENDED TABULATIONS

While the recommended tabulations are comprehensive and clear-cut, we, however, have identified a few that will not be relevant for South Africa. We will also include those tabulations that were agreed upon by African countries in a meeting in Cape Town.

Exclusions	Reasons for exclusion
P1.1	Definition of rural/urban still a problem; provinces subdivided into municipalities.
P2.3	The question was not asked in Census 2001. SA allows for dual citizenship
*P6.3	Depending on research findings
*P7.4-P7.7	Response categories to be revisited
P8.1	Rural/urban concern
RecH01a, b,c & Opt H01	Concepts not applicable
RecH03a-d	Urban/rural concern
*RecH10; OptH06a-b.	Question never asked in previous censuses?
*RecH15	Question asked differently. Construction material not collected

* *Open for discussion*

CENSUS MANAGEMENT

The lessons learnt from the last two censuses have underscored the paramount importance of integrative planning, monitoring of the implementation of activities, involvement of stakeholders in all phases of the census programme and the vital role of publicity, advocacy and education in the census programme. The recommendations pertaining to this aspect of census taking as well as the resolutions made by African countries in February 2006 will constitute the backbone of the planning for the next census.

EXPERIENCES GAINED FROM THE LAST CENSUS (2001)

Census 2001 was the most challenging census to be carried out in the country due to the very short time that was available for effective planning and implementation of pertinent preparatory activities as documented in the report "*How the count was done*" which is available on Statistics South Africa website. The planning for this Census started in November 1999. This delay impacted negatively on many processes. Most of the preparatory activities were hurriedly carried out. However, the following activities were successfully implemented:

- *Use of Geographic Information System (GIS) in demarcation exercise:* Unlike in Census 1996 GIS was used in the demarcation of EAs and production of maps instead of the traditional methods of using analogue and sketch maps. A comprehensive digital spatial information data base was created from several data sets acquired from government departments and private sector companies.

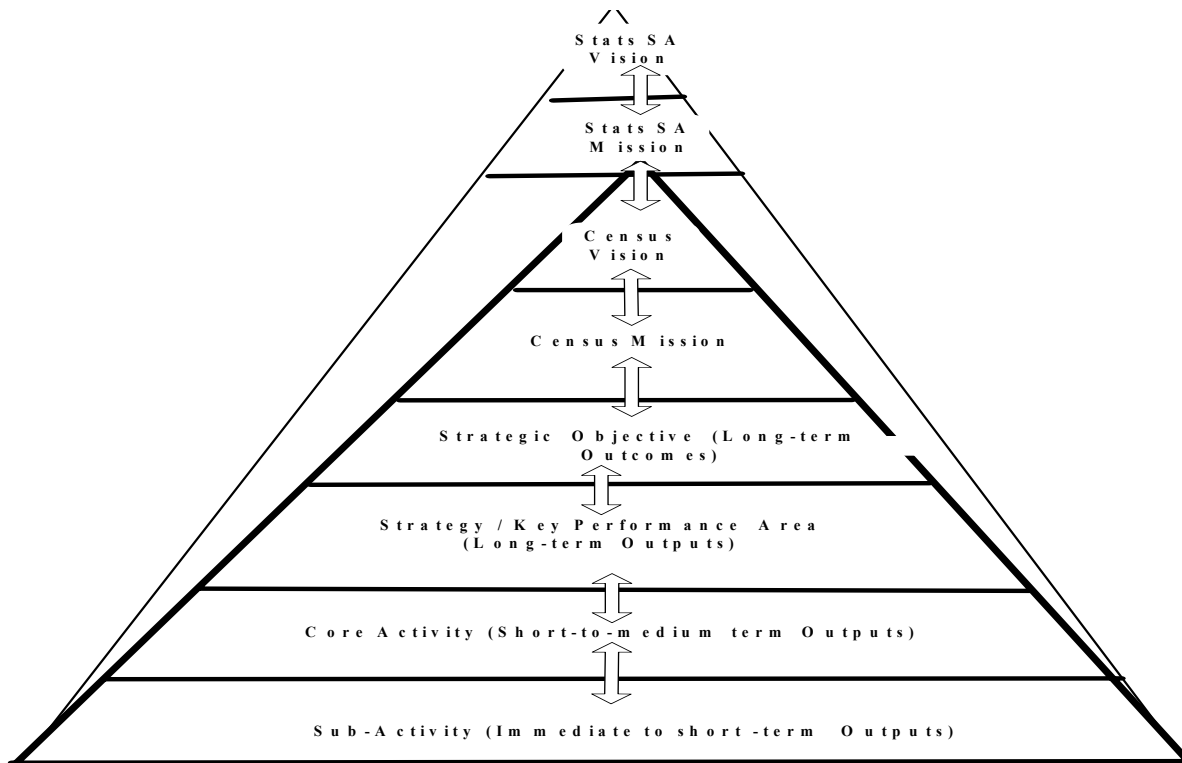
- *Questionnaire content and design:* The use of Census 1996 questionnaire as a basis was an excellent decision. The data collected in Census 2001 have been used to provide trends in key demographic and socio-economic parameters.
- *Post- Enumeration Survey (PES):* The decision to incorporate PES as an evaluation tool as part of the census programme was a strategic one. The results of the survey unveiled the factors that contributed to the high under-count as well as the adjustment that had to be made to accommodate the under-count.
- *Data processing:* In spite of the initial challenges that were experienced in using scanning (optical character recognition technology) technology the processing was expedited later on. It would have been quite difficult to process the massive data using manual capture and deliver the results on time.
- *Development of the Census Administrative System:* The system assisted in the recruitment of field staff and distribution of questionnaires to regional offices. It is currently being further developed for Census 2011 as a management information system.
- *Dissemination:* Statistics South Africa follows best practices which are judged by its stakeholders in terms of the usefulness and the level of quality of statistical products through user annual surveys. The usefulness of information is achieved by continual assessment of information needs through annual user consultation workshops, anticipating emerging requirements, and developing new products and services. When disseminating products, the organization utilizes a variety of dissemination channels such as hard copies, compact discs, electronic media so that the public, researchers, and policymakers can access information in an equitable and timely fashion. This strategy was followed to disseminate the census 2001 results.

PLANS FOR CENSUS 2011

Census 2011 promises to notch unprecedented levels of success. Thanks to on the one hand, the in-depth organizational insight into challenges and lessons experienced in 1996 and 2001 censuses and the deferment of the next census by five years. The shift to a ten-year cycle creates an opportunity for proper planning and implementation of pertinent activities.

The planning for Census 2011 started three years ago and will be done prudently and extensively. At the pinnacle of this planning phase, is the Strategic Plan. As the highest level plan, the document maps out a long-term road map towards the attainment of the goal of ensuring that Statistics South Africa is able to conduct a successful population census in 2011. The strategic plan is an all encompassing and integrated plan that deals with the entire census programme for its entire duration. The plan is aligned to the organization's vision and strategy as shown in Chart 1 below.

Statistics South Africa's vision is "*to be the preferred supplier of quality statistics*" and its vision is "*to provide a relevant and accurate body of statistics to inform users on the dynamics in the economy and society through the application of internationally acclaimed practices*".



The census programme can be divided into several components or sub-programmes/focus areas. Each focus area has a distinct objective to meet and has thus been allocated dedicated resources in pursuit of that particular objective. Further planning, more detailed in nature will be done to ensure that the objective is realized. This level is known as tactical planning. The Tactical Plans are component-specific but also covering the entire census period. All Tactical Plans draw their broad strategic parameters from the Census 2011 overall Strategic Plan. Tactical planning is mainly about the tactics, methodologies and tools to be utilized to implement the strategy.

A Schedule of Activities encompassing all core activities for each component over the census period has been drawn. This schedule of activities has been utilized to prepare an initial overall budget covering the period 2006-2016. The core activities will be broken down into implementable sub-activities for each financial year as part of operational planning.

The Community Survey scheduled to be carried out in February 2007 serves as a platform for testing most of the anticipated processes and methodologies as well as building the requisite capacity for Census 2011. The survey will cover 17,098 EA's enumerated in Census 2001 (a quarter of all the EA's). It will provide data at municipality level. Already, mapping activities are at an advanced stage to provide an up to date geographical frame.

Like the previous two post-apartheid censuses, Census 2011 will be based on the *de facto principle*. To realize the strategic goal of ensuring that everyone who will spend the census night in the country is enumerated, the public needs to be educated about the *de facto* census and what is expected of them. Public education, therefore, takes the centre stage in all our publicity and advocacy plans. For Census 2011, there will be more consultations with stakeholders and additional space will be created for them to participate optimally in the census processes. Among the forums to be utilized for purposes of the latter are advisory committees at national, provincial and local levels. In addition to these, each of the core work streams will establish technical committees to advise them on specific subject matters. Commencing in 2007, tactical plans will be drawn per work stream enunciating the tactical strategies each work stream will follow to complement efforts aimed at ensuring a complete count. Research pertaining to publicity and content development (fertility, migration, employment and disability) has been initiated. The publicity research has underscored the need to involve stakeholders in phases of the census. The documents can be accessed at our website <http://www.statssa.gov.za/census2011/index.asp>.

The following are the Major Milestones:

- Year 2006/7
- March 2007: Approved Strategic and Operational plans
- March 2007: Content Research on disability schedule conducted
- Year 2008/9
- September 2009: Demarcation finalized
- Year 2009/10
- October 2009: Pilot conducted
- Year 2010/11
- October 2010: Listing finalized
- Year 2011/12
- October 2011: Enumeration conducted
- November 2011: Post Enumeration Survey conducted
- Year 2012/13
- September 2012: Data processing finalized
- December 2012: Evaluation carried out
- March 2013: Results launched

The biggest challenge to be addressed regarding planning is to ensure that the strategy is complete; it appeals to all stakeholders and provides sufficient broad parameters for detailed planning. Publicity also poses a big threat to the success of the next census. Research conducted in 2005 on the public's perceptions about the last census revealed inadequacy in our publicity efforts resulting principally in lack of public awareness, unwillingness to participate in the census and confusion about the reasons for conducting it and the use of the data that accrues from the process. Hard-to-count groups such as illegal migrants, children under five years of age, the homeless, etc. need specific strategies in order for them to be fully covered in the next census.

Annexure 1: Questions asked in 1996 and 2001 censuses

No	Variable	Census 2001	Census 1996
A. Geographical and internal migration characteristics			
1	Born in SA	Was (the person) born in South Africa?	Same as 2001
2	Place of birth	In which Province was (the person) born?	
3	Country of birth	In which country was (the person) born?	Same as 2001
4	Residence	1 .Does (the person) usually live in this household at least four nights a week? 2. Where does the person usually live?	1. Is this DWELLING (e.g. house, room, shack, flat) the place where (the person) usually lives, I.e. where (the person) spends at least four nights a week? 2. Same as 2001
5	Five years ago	Five years ago (at the time of Census '96), was (the person) living in this place (I.e. this suburb, ward, village, farm, informal settlement)?	
6	From where moved?	Where did (the person) move from?	From where did (the person) move?
7	In which year moved?	In which year did (the person) move to this place?	Same as 2001
8	From where moved?	Where did (the person) move from?	From where did (the person) move?
9	In which year moved?	In which year did (the person) move to this place?	Same as 2001
B. Household and family characteristics			
10	Relationship	What is (the person's) relationship to the head of the household?	What is (each individual's) relationship to (the person listed in column 1)?
C. Demographic and Social characteristics			
11	Age	What is (the person's) date of birth and age in completed years?	What is (the person) date of birth?

No	Variable	Census 2001	Census 1996
12	Sex	Is (the person) male or female?	Same as 2001
13	Marital Status	What is (the person's) PRESENT marital status?	Same as 2001
14	Spouse person number	Who, in the household, is (the person's) spouse or partner	
15	Population Group	How would (the person) describe him/herself in terms of population group?	How would (the person) describe him/herself?
16	Language	Which language does (the person) speak most often in the household?	Which language does (the person) speak MOST OFTEN AT HOME?
17	Knowledge of other languages		Does (the person) speak more than one language AT HOME? If YES, specify the language he/she speaks NEXT MOST OFTEN
18	Religion	What is (the person's) religion, denomination or belief?	Same as 2001
19	Citizenship	Is (the person) a South African citizen?	Is (the person) a citizen of:
D. Fertility and Mortality			
20	Total births	How many children, if any, has (the person) ever had, that were born alive?	How many children, if any, has the woman ever given birth to?
21	Total boys	How many of these were boys?	
22	Total girls	How many of these were girls?	
23	Total alive	Derived	How many of her children are still living?
24	Boys alive	How many boys are still alive?	
25	Girls alive	How many girls are still alive?	
26	Date of last child born	When was (the person's) last child born?	
27	Child sex	What is the sex of the child?	
28	Child alive	Is that child alive or dead?	
29	Age of mother at first birth		When was her first child born? (live birth) {derived}
30	Children born alive 12 month prior to the census	Derive birth in the last 12 months	How many children (live births), if any, has she given birth to IN THE LAST 12 MONTHS?
31	Mother alive	Is (the person's) own biological mother still alive?	Is (the person's) own mother still alive?

No	Variable	Census 2001	Census 1996
32	Mother person number	Who in this household is (the person's) mother?	
33	Father alive	Is (the person's) own biological father still alive?	Is (the person's) own father still alive?
34	Father person number	Who in this household is (the person's) father?	
35	Death in the household	Has any member of this household died in the past 12 months, i.e. between 10 October 2000 and 09 October 2001?	
36	Date of death	What was the month and year of death?	
37	Sex	What is the sex of the deceased?	
38	Age	What was the age in years at death?	
39	Reason	Did (the person) die from an accident or through violence?	
40	Pregnant woman	If deceased was a woman under 50 years, did (the person) die while pregnant or within six weeks after delivery?	
E. Educational characteristics			
41	Present school attendance	Does (the person) presently attend an educational institution?	Does (the person) presently attend school, college, technikon or university? (<i>Options : Full-time or Part-time</i>)
42	School attendance part-time or full-time		
43	Type of institution_1	Is this institution public or private?	
44	Type of institution_2		
45	Correspondence		
46	Level of education	What is the highest level of education that (the person) has completed?	What is the highest school class/standard that (the person) has COMPLETED?
47	Field of education	In which field is (the person's) highest post-school qualifications	
F. Economic Characteristics			

No	Variable	Census 2001	Census 1996
		In the SEVEN DAYS before 10 October 2001 did (the person) do any work for PAY (in cash or in kind) PROFIT or FAMILY GAIN, for one hour or more?	
48	Any work		Does (the person) work?
49	Reason why not working	What is the main reason why (the person) did not have work in the seven days before 10 October?	Is (the person) one of the following?
50	Active steps to find work	In the PAST FOUR WEEKS before 10 October has (the person) taken active steps to find employment?	
51	Availability to start work	If offered work, how soon could (the person) start?	
52	Work status	How can one best describe (the person's) main activity or work status?	Same as 2001
53	Business name	What is the FULL name of the business/company or organization for whom (the person) works?	Same as 2001
54	Occupation	What is the main occupation of (the person) in this workplace?	Focus on the occupation of (the person). What would you call this occupation?
55	Industry	What does the business do (main economic activity)?	Same as 2001
56	Hours worked	How many hours did (the person) work in the seven days before 10 October?	
57	Place of work	Does (the person) work in the same sub-place in which s/he usually live?	
58	Where work	Where is the place of work?	Same as 2001
59	Travel to place	How does (the person) usually travel to school or to his /her place of work?	
60	Income	What is the income category that best describes the gross income of (this person) before tax?	Please indicate each person's income category before tax.
61	Income from sale of home-grown produce		Think of any additional money that this household generates, and that has not been included in the previous section. Please indicate the total amount, if anything, during the past year.
62	Full-time or part-time work		Does (the person) carry out this activity full-time or part-time?
63			

No	Variable	Census 2001	Census 1996
	Unemployment and non-economic activities		
64	Previous occupation		Focus on the type of work (the person) used to do in his/her last occupation. What would he call this occupation?
65	Previous occupation		Describe (the person's) main duty or activity that (he/she) used to do in this occupation in more detail.
G. International migration characteristics			
66	Country of citizenship	What is the name of the country of citizenship?	What is the name of the country?
67	Dual citizenship		(If dual citizenship or citizenship of another country) What is the name of the country?
H. Disability characteristics			
68	Disability	Does (the person) have any serious disability that prevents his/her full participation in life activities (such as education, work, social life)?	Does (the person) have a serious sight, hearing, physical or mental disability?
I. Housing Characteristics			
69	Type of living quarters	What is the type of these living quarters?	
70	Type of housing unit	Which type of dwelling or housing unit does this household occupy?	Same as 2001
71	More than one dwelling	Does this household occupy more than one dwelling on this site?	
72	Number of rooms	How many rooms, including kitchens, are there on this site?	Same as 2001
73	Sharing one room	Are there two or more households sharing a single room?	Do you share this room with any other household?
74	Tenure status	What is the tenure status of the household?	Is this dwelling owned by a member of this household?
75	Piped water	In which way does this household obtain PIPED WATER for domestic use?	
76	Source of water	What is this household's MAIN source of WATER for domestic use?	What is this household's main water supply?

No	Variable	Census 2001	Census 1996
77	Toilet facilities	What is the MAIN type of TOILET facility that is available for use by this household?	What type of toilet facility is available?
78	Energy used for cooking	What type of energy/fuel does this household MAINLY use for cooking?	Same as 2001
79	Energy used for heating	What type of energy/fuel does this household MAINLY use for heating?	Same as 2001
80	Energy used for lighting	What type of energy/fuel does this household MAINLY use for lighting?	Same as 2001
81	Household goods	Does the household have any of the following (in working condition)?	
82	Access to telephone	Where do members of this household MAINLY use a telephone?	Same as 2001
83	Refuse or rubbish	How is the refuse or rubbish of this household MAINLY disposed of?	Same as 2001
J. Migrant Workers			
84	Remittance or payments from migrant workers		If these household receives any remittance or payments ((for example money sent back home by someone working or living elsewhere or alimony). Please indicate the total received during the past year.
85	Absent migrant workers 1 month or more a year by relationship to head of household		Are there any persons who are usually members of this household, but who are away for a month or more because they are migrant workers?

Southern Sudan

Southern Sudan Commission for Census, Statistics and Evaluation

Brief background:

After decades of civil war, the Sudan Peoples Liberation Movement (SPLM) and Government of Sudan (GoS) signed the Comprehensive Peace Agreement (CPA) on 9 January 2005. According to the CPA and the current Interim National Constitution, there shall be Government of Southern Sudan (GoSS) charged with primary responsibilities of promoting good governance, development and Justice and to ensure the protection of rights and interests of the people of Southern Sudan and shall act as a link between the National Government and states of Southern Sudan. The exclusive legislative and executive powers of government of Southern Sudan, as provided for in the Interim National Constitution, shall include inter alia, planning, reconstruction and development in Southern Sudan as well as Southern Sudan Census, Surveys and General Statistics.

The Southern Sudan Commission for Census, Statistics and Evaluation (SSCCSE) is an autonomous statistics bureau and a corporate public office mandated by the Laws of the Southern Sudan and the Interim National Constitution of the Sudan to collect, compile, analyze, publish and disseminate statistical information on economic, social, demographic, environmental and general activities and conditions of the people of Southern Sudan as well as evaluating social impact of public policies, projects and programs. The Interim National Constitution 2005 mandated the Central Bureau of Statistics (CBS) in Khartoum and the SSCCSE in Juba to conduct the population census as provided in Article 215 (2). While CBS will oversee the implementation of the population census in the whole country, the SSCCSE will be the executing agency in southern Sudan. In the transitional areas of Abyei, Southern Kordofan and Blue Nile, it is recommended that the population census will be carried out jointly by CBS and the SSCCSE.

The Interim National Constitution specifies in Article 215(1) that the population census throughout the Sudan shall be conducted and completed by the end of the second year of the Interim Period, which would occur on 8 July 2007. The general elections at all levels of government in the country shall be held not later than the end of the fourth year of the interim period as provided in Article 216 of the Interim National Constitution. The CPA has provided a clause to review, six months prior to the planned census and elections, the feasibility and the practicality of the proposed dates for the population census. In the light of these constitutional provisions, the SSCCSE has developed a population census plan and the budget jointly with the CBS so as to meet the constitutional obligations of conducting the population census 2007.

As to the brief background above, SSCCSE did not carry out any population census on its own before neither participated as an institution in the previous censuses conducted in the Sudan, thus, is a newly born institution at its infancy charged with the huge task of conducting the population census in a post conflict situation of Southern Sudan.

Therefore, most of the documentations regarding the previous censuses of the Sudan will be provided by our colleagues at the CBS in Khartoum, Sudan fifth population and Housing census is a nation wide undertaking which follows international standards and same procedures, same tools and methodology for both South and North.

As to the census methodologists, most of the core topics recommended is adopted i.e.

1. Household and Family Characteristics
2. Demographical and Social Characteristics
3. Geographical And Internal Migration Characteristics
4. Disability Characteristics
5. Fertility and Mortality
6. Educational Characteristics
7. Economic Characteristics
8. Agricultural Activities

Regards,

Isaiah Chol Aruai Chairman

October 15, 2006.

Saint Helena

PRE-WORKSHOP ASSIGNMENT

A. Country Statement – ST HELENA ISLAND

St Helena welcomes the opportunity to participate in the United Nations Workshop on the 2010 World Programme on Population and Housing Censuses, to be held in Mozambique.

St Helena is a remote island situated in the South Atlantic Ocean with an estimated population of 4,000. Its only physical link with the outside world is by ship.

St Helena is heavily aided by Britain and also receives funds in respect of development for on-island projects from the European Union and United Nations. It is a known factor that even though St Helena is a small island, it is heavily reliant on overseas aid.

St Helena Government relies heavily on statistics to enhance the development of the island. Our Statistics Office is located within the Development & Economic Planning Department of the St Helena Government. The Office must produce indicators that are relevant and timely thus meeting the needs of both Government of St Helena and the British Government, as St Helena is a British Overseas territory.

The cost of conducting a social, economic and population Census and other surveys such as Household Expenditure Surveys are always very high. The recurrent budget allocation is not always sufficient to cater for such surveys and therefore provisions must be made for other alternative funds.

Mission of the Statistics Office

To contribute to raising the living standards of the people of St Helena, by planning and managing sustainable economic and social development which reflects local ownership and best practice.

There is a lack of trained staff within the Statistics Office, which is why St Helena truly appreciates the opportunity to participate in the 2010 Population and Housing Censuses Workshop. The Office is fortunate to be equipped with internet and e-mail facilities. The aim of the St Helena Statistics Office is to have all staff professionally skilled in their task.

Information Technology

Experience in the widespread use of Information technology within the Statistics Office has developed tremendously over the past two years.

The participation of St Helena in the 2010 World Programme on Population and Housing Censuses Workshop will help Statistics staff to accomplish their goals within the Development & Economic Planning Department. The Statistics Office will continue to provide statistics and information to policy makers, the Government and Private Sector and to other Non Government officials and to meet the demands of customers.

One of our major planned events is to conduct a Population and Housing Census in 2007 with the need to concentrate on some core topics. This will hopefully obtain valuable data particularly with regard to

monitoring the impact of the major changes that are predicted with the introduction of an airport.

Because of St Helena's small population, it is anticipated that the international guidelines presented can be implemented with ease on St Helena.

St Helena cannot foresee any problems with recommended Core Topics 1 – 22 in relation to Housing/Dwellings/buildings. Some recommendations already exist and/or can be readily implemented, whilst some are not relevant to St Helena. However, we have noted that recommended Core Topics:

- Construction material of outer walls - does not exist but has been considered for implementation at the next Census
- Year or period of Construction – To be implemented at next Census
- Construction material of floor, roof – Currently construction of roof by type already exists but will be further enhanced with a question pertaining to Floor
- Elevator – will be implemented in relation to Institutions only as most residential buildings/dwellings on the Island are at Ground level.
- State of repair – To be implemented at next Census
- Furnished/Unfurnished – availability of - To be implemented at next Census
- Information and Communication Technology - availability of – To be updated/elaborated at next Census
- Durable household appliances – availability of – To be updated/elaborated at next Census
- Outdoor space – availability of - To be implemented at next Census

Other principles and recommendations have been noted and the participants look forward to the related discussions at the workshop.

In summary, St Helena thanks the host country and United Nations for the opportunity to participate and receive useful information, which in turn will help to improve economic performance and achieve sustainable development goals.

B.1.

St Helena has an area of 47 Square miles (122 square kilometres). A large part of the island – approximately 54 per cent – is barren ground or crown waste and a further 20 per cent is scrub.

Jamestown, the capital is the main urban area on the island, with other areas of concentrated population in Half Tree Hollow and Longwood. Areas of settlement regarded as rural include Blue Hill, Sandy Bay and Levelwood. In recent years, the availability of building land in the Levelwood and Alarm Forest areas has resulted in a significant growth of the population in these areas.

The most recent national population and housing census for the Island, was conducted in March 1998. This was undertaken by the St Helena Government, with technical assistance from the UK Department for International Development. A Statistical Adviser, recruited by the Government under the UK's technical

assistance programme, was appointed as the Census Supervisor and provided technical assistance for the execution and analysis of the Census.

As with any Census, a significant amount of time and resources was put into the development of appropriate classification schemes for coding purposes to ensure that data could be tabulated in the detail considered relevant for St Helena's current and future needs.

The 1998 Census was conducted very successfully and some of the stronger activities relating to the successful execution were:

- Publicity Campaign

The publicity programme was started well in advance and covered Newspaper articles, which were publicized on a weekly basis. These articles explained the background to the census, why the information is needed, and discussed the timing and arrangements for the census.

In the week prior to the census night, a series of daily news releases were prepared to provide information to the population about the progress of the Census operation and to provide information on the completion of the questionnaires.

A schools poster competition was organized for the school children and three separate categories of prizes, each of £10 were awarded to the painting or picture judged as the Design for a Census Poster for each of the Junior, Middle and Upper Schools.

The Statistical adviser gave talks at Prince Andrew School and other schools about the Census. The purpose of this was to get the children 'on-board' and highlight the importance of the Census in planning the future of the island (for example in determining the number of school places, schools and teachers needed in the future) and to ask the more senior children to assist their parents complete the Census schedule if this was necessary. A competition to 'guess the number of people on the island' was announced and this also generated some interest and provided a further opportunity for Census exposure on the radio.

There was also a Radio count down to Census Day, which included radio interviews and broadcasts for 'before' and 'after' Census night.

The Publicity Programme indicated that all adults in the de facto population were aware of the Census and its purpose. The overall response was thought to be complete and there was no indication after the Census that anyone had not been covered.

- Enumerator Selection and Training

Twenty-six enumerators were drawn principally from Government employees to cover each of the enumeration areas, plus a further two to cover the harbor (for the enumeration of visiting yachts) and the institutions in St Helena. No specific problems were noted with regard to the selection of enumerators. Suitable volunteers put themselves forward for the task.

Enumerator training was undertaken over two and a half days. Enumerators were granted time to attend the training by Heads of Departments. The training programme had the following format and content:

1. Introduction
2. Aims and objectives
3. The Schedules
4. Guidance Notes

5. Confidentiality
6. Follow-up
7. Administrative procedures

- The Enumeration

The enumeration of the Population took place in respect of the night of Sunday 8th March. The enumeration was preceded by the delivery round when households were identified and questionnaires were delivered to each household. This took place in the week to 10 days prior to Census night.

The timetable for the Census in the period prior to and immediately after the Census is shown below:

18 th February 1998	Enumerator Training
19 th February	Enumerator Training
20 th February	Household listing check and schedule delivery. List any unoccupied dwellings Complete the household summary
22 nd February – 6 March	Schedule delivery round
Sunday, March 8	Census Day
9 th March	Deadline for completion of the Schedules
9 th March	Collection of Schedule begins
9 – 13 March	Checking and follow-up begins
16 March	Return Schedules to Census Office
23 rd March	Enumerator – debriefing meeting
21 st April	Press release of preliminary population count (5010)

- Data Entry and Processing

Although St Helena is an island with a relatively small population of approximately 5000 persons in 1998, the overall data processing operation for Census was a relatively complex technical task and shared similar overheads in terms of processing and analysis as any census for a larger country.

The St Helena Census operation included separate Censuses of the Saint Helenian population in Ascension Island, the Falkland Islands and the RMS St Helena. These were covered using specific schedules, which although sharing common parts to the main Census Schedule used for St Helena Island, nevertheless implied different database structures, screen designs for data entry, and specifically tailored validation and verification procedures.

The data processing operation was undertaken in three phases. Phase I covered the checking and coding of the census schedules. Phase II covered the data entry and the preparation of a clean database. Phase III was the tabulation of the data.

B.2.

Plans for the next census

The next Census will be conducted in 2007.

A draft programme for this census is shown below:

Feb – Mar 2007	Draft Census programme Preparation and approval of Census Budget
March	Government briefing on Census plans
March	Consultation exercise on user requirements
April	Draft Census schedules
April	Review legislative requirements for Census: Advise HE the Governor on legal aspects
April	Recommendation on Census Date and appointment of Census Supervisor
April – June	Coding schemes; country, occupation, industry
July	Organization of Pilot Survey
July	Preparations of schedules and training material for pilot
August	Pilot Survey Date
September	Finalize schedules and guidance notes
October	Census Schedules to Ascension & Falklands- via RMS
October	Approval of Census Schedules by Governor & EXCO
October	Promulgation of the Census
October	Main publicity programme starts
November	Census Day

Preparatory tasks

The responsibility for conducting the Census falls to the Statistics Office, which forms part of the Development & Economic Planning Department.

The legal provision for taking a Census in St Helena is contained in the 1986 Census Ordinance. Under the terms of the Census Ordinance, HE the Governor is required to promulgate the Census and have notice of this published in the Government Gazette at least 15 days prior to Census night.

Prior to the Census, the Legal and Lands Department will provide the Census Office with maps of the enumeration areas. A list of households will also be provided by the Legal and Lands Department derived as a preliminary frame from an earlier exercise on Land Tax and updated to include new dwellings. This household list will be classified to the enumeration areas and further updated where information is available. One task of the enumerators is to update this list prior to or during the schedule delivery round.

No specific problems are foreseen with regard to the selection of enumerators as it is anticipated that suitable volunteers will come forward as in previous years.

The overall cost of the Census will be borne by St Helena local administration, but will exclude the cost of any Technical assistance attributable to the Census operation.

Field Operations

The enumeration of the Population will be preceded by the delivery round when households will be identified and questionnaires will be delivered to each household. This will take place in the week to 10 days prior to Census night. Enumerators will be required to complete the Enumerator Control Sheet, which provides a

control on schedules delivered, dwellings and households within dwellings and details of the construction of the dwellings.

Because of the small size of the overall enumeration, it is possible for Census Office Staff to contact enumerators directly in the week prior to the Census to monitor the progress of the delivery round.

Collection of questionnaires will begin immediately after Census night. It is anticipated that the collection of schedules from the majority of enumeration areas will be completed by the end of the first week and Census Schedules will be brought to the Census Office for a preliminary check. It is expected that there will be one or two enumeration areas that will take longer than a week because of population growth.

Data Processing

It is anticipated that a TCO (Technical Cooperation Officer) will be recruited to give assistance for the next Census and will give guidance in this area, although it is expected that all data will be processed as in the previous Census.

The estimation of physical data processing resources and the associated budget requirements are based on the following assumptions:

Data verification (double data entry) is undertaken

Data validation (i.e. range and logical checks) is carried out for each of the record types

Appropriate staff and related resources are available for the coding and data entry operation

The software strategy that it is anticipated will be adopted for the processing of the Census is shown in the table below:

Data entry	MS Access
Data control reports and preliminary tabulations	MS Access
Summary control tables and data organization	Excel
Tabulation	SPSS
Final Tables	Excel

Data dissemination

Data will be disseminated through the context of the St Helena Census Report and via the local TV/Media.

Sudan

Census in Sudan

Introduction:

Sudan covers an area of about 2.5 million square kilometers which is nearly one-tenth of the total area of Africa. It is the largest country in Africa surrounded by nine other African countries viz. Egypt and Libya in the north, Chad, Central African Republic, and Zaire in the west, Uganda and Kenya in the south, Ethiopia and Eritrea in the east. The Sudan has 480 Kilometers of coastline along the red Sea. There are twenty five states in the country, fifteen in the north and ten in the south. These states are further subdivided into Counties/Mahalia, Administrative Units/Payam, Popular Administrative Units/Boma, towns and villages.

The national censuses are the main sources of data for studying population distribution and changes in the country. Since independence of Sudan in 1956, the Government has conducted four censuses in 1956, 1973, 1983 and 1993. The latest census of 1993 is the most recent source of data. However, it is now thirteen years old, which makes it of historical nature and of little use for policy and planning purposes. This is due to continuously changing socio-economic and demographic structures of the country driven by the war that lasted for more than two decades.

Sudan has recently come out of 20 years of civil war. A Comprehensive Peace Agreement (CPA) between the Government of Sudan and Sudanese People Liberation Movement (SPLM) was signed in January 2005. The population censuses are normally conducted after 10 years. The census in Sudan was, therefore, due in the year 2003. The preparations for the 2003 census were already under way. However, the conduct of the census was postponed based on positive expectations of peace agreement. Thus Sudan's population census is now overdue not only because it is needed to generate data for socio-economic development planning but also as a tool for sustainability of peace as called upon by the recently signed CPA. It is now planned that a national census, covering the whole country, will be conducted in November 2007. Preparations for this census have already commenced.

Having comprehensive, scientific, credible and accurate data on population distribution and characteristics covering whole of Sudan would facilitate sustainability of the peace. Such data would not only be critical to development planning but also for scientific distribution of wealth and power. The census would be conducted using scientific standards as per United Nations guidelines and recommendations and all attempts would be made to meet international standards. However, in the case of Sudan, with its large area, diverse topography and varying climatic conditions across the country, complex socio-political structure attributed to the multifaceted tribal, ethnic and religious composition of the socio-cultural fabric, different levels of development in the states, census is one of the most challenging activities to be carried out in post conflict phase. The high population mobility both inside the country and to neighboring countries, excessively large number of internally displaced persons, and the widely spread out nomadic population add another dimension to complexity of this exercise.

The 2007 census will be conducted through the traditional approach. It will be a de facto census and will count all persons who spent census night in Sudan. This will mean nationals and foreigners alike whether in households, institutions, nomadic settlements, homeless, refugees and displaced camps etc, so long as they spent census night in Sudan would be enumerated. The census reference period will be the time from zero hour (00.00 hrs) of the first enumeration day to the midnight (24.00 hrs) of the last enumeration day. The census moment will be 00.00 hrs of night of first enumeration day. The census will not include anybody outside the territorial boundaries of Sudan whether resident in a refugee camp or elsewhere.

Pilot Census:

The pilot census will be used to test all the census procedures from collection of data in the field, advocacy and publicity, data processing, generation of tables, analysis of data and data dissemination. It will also be used to test census logistics.

It has been planned to conduct pilot census in all the twenty five states. Each of the state will be allocated four Enumeration Areas (EAs) purposively. Two types of questionnaires will be used to collect information. The short questionnaire will be administered to all households and the long questionnaire to every 10th household in every EA. The households in Sudan can be broadly classified into six categories. These are private households, institutional households, nomads, homeless, displaced and refugees. In case of institutional households, homeless and persons on move in the census night only the short questionnaire will be administered. The nomads will be considered household population and only the long questionnaires will be administered in the field. Both short and long questionnaires will be administered to private households, displaced persons and refugees.

The short and long questionnaires will be administered by different set of enumerators. For the pilot one enumeration team would cover four EAs. Each enumeration team will consist of six enumerators (four administering the short questionnaire and two administering the long questionnaire) and one supervisor on an average. Two or three days before the enumeration listing of all buildings, dwelling units and households will be done and the supervisor will select 10 per cent households for canvassing of long questionnaire. The short questionnaire will be administered first and then the long questionnaire will be administered.

Delineation of Enumeration Areas:

The first step in the pilot census will be delineation of Enumeration Areas. The delineation of Enumeration Areas will be done through census mapping. The average size of an Enumeration Area in urban areas will be about 200 households whereas in case of rural areas it will be 150 household.

The main objectives of the cartographic/mapping exercise will be:

- To prepare comprehensive locality lists for each administrative unit;
- To record Global Positioning System (GPS) coordinates for each locality, institutions, services (social facilities), administrative and Enumeration Area (EA) boundaries, and roads and tracks;
- To make quick-counts of households in each locality;
- To delineate EAs within each Popular Administrative Unit (PAU) / Boma, based on the quick-counts;
- To compile information on the availability of services in all villages and towns.
- This exercise will commence shortly.

Census Questionnaires:

As stated above two types of questionnaire will be administered to collect information. A short questionnaire and a long questionnaire will be used for collection of information. The short questionnaire will provide information on the total population by age and sex, relationship, nationality, ethnic group, religion and migration. The long questionnaire will be administered to ten per cent of the households. In addition to the questions covered in the short questionnaire, information on the socio-economic characteristics of the population and housing conditions will be collected through long questionnaire. The housing questions will be canvassed at the household level.

It is observed that almost all the core topics except place of previous residence, country of birth, year or period of arrival have been covered either in short questionnaire or long questionnaire. Questions on religion, ethnicity, and age at first marriage are also being canvassed in addition to the core topics.

A large number of questions on housing conditions like number of rooms used for sleeping purpose, tenure

status of the housing unit, source of drinking water, source of lighting, main source of energy used for cooking, availability of toilet facility which are recommended as core topics have been included in the long questionnaire. However, some of the recommended core topics under housing census like occupancy status, water supply, sewage disposal, bathing facilities, kitchen and solid waste disposal, etc which are not relevant at this point of time for the country have not been included. In addition to the core topic, questions on possession of transport facilities, main source of livelihood at household level have also been included in the long questionnaire. The details of comparison between topics recommended in Principles and Recommendations for population and housing census and those included in the census questionnaires of Sudan may be seen at Annexure-I.

The census questionnaires might undergo some changes after the pilot. The UN recommendations would be kept in view at the time of finalization of questionnaire for the main census.

Data processing:

The processing of short questionnaire will be done through scanning while long questionnaire will be keyboarded. The processing of both short and long questionnaire will be done in the pilot. The detailed procedure for the main census will be laid out after the pilot.

Tabulation:

Tables would be generated in the pilot census. The tables suggested in Principles and Recommendations for Population and Housing Censuses will be considered at the time of finalization of Tabulation Plan. It is often experienced that detailed tables on sensitive issues like religion, language, and ethnicity lead to problems. These data need to be looked into very carefully before these are released. There are also problems when data appear to be inconsistent when compared to earlier censuses or other surveys. Therefore, all types of consistency checks will be applied before release of tables.

Budget:

The total budget for the proposed census in 2007 works out to about \$74 million. Out of this 55 per cent be met by the government and the remaining 45 per cent will be funded by Multi-Donor Trust Fund (MTDF). The proposal prepared in this regard by the Central Bureau of Statistics (CBS) and South Sudan Center for Census, Statistics and Evaluation (SSCSE) was appraised by UNFPA and World Bank to the MTDF. The project has been approved by the oversight committee of MTDF and the grant agreements have been signed in this regard both by north and south. The break up budget expenditure is given below:

FIFTH SUDAN POPULATION CENSUS

BUDGET SUMMARY

ACTIVITY	COST (US\$)
PLANNING	2,417,367
CENSUS CARTOGRAPHY	11,615,148
ENUMERATION	27,319,750
DATA PROCESSING	4,215,400
FINAL RESULTS	1,207,154
DISSEMINATION	1,549,611

ADVOCACY	1,040,000
VEHICLES AND TRANSPORTATION	13,524,410
DATA PROCESSING EQUIPMENT	4,000,000
CARTOGRAPHIC EQUIPMENT	2,494,000
OFFICE EQUIPMENT	246,000
PROJECT MANAGEMENT	4,092,149

GRAND TOTAL	73,720,989
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A total of Euros 9,869,734 has also already been secured by the UNFPA to support capacity building, making available equipments etc for various activities relating to census.

EC	3,857,011
DANIDA	5,162,723
UNFPA	850,000
TOTAL	9,869,734

Challenges:

1. Timely availability of money and resources.
2. Appropriate and timely preparations for the conduct of census in post war situation.
3. Completion of delineation of Enumeration Areas in time.
4. Full coverage of population specially nomads, migrants, young and aged.
5. Coverage of inaccessible areas and the areas which are still to be de-mined.
6. Quality of information on age, ethnicity, disability, work participation, possession of agricultural land and livestock.
7. Data processing using scanning technology.

Annexure I

Population Census

List of population census topics as per P & R (Core topics are in bold)	Status of inclusion in Census Questionnaire of Sudan	Remarks
1. Geographical and internal migration characteristics		
(a) Place of usual residence	Yes (SQ)	
(b) Place where present at time of census	Yes (SQ)	
(c) Place of birth	Yes (SQ)	
(d) Duration of residence	Yes (SQ)	
(e) Place of previous residence	No	
(f) Place of residence at a specified date in the past	Yes (SQ)	
2. International migration characteristics		
(a) Country of birth	No	
(b) Citizenship	Yes(SQ)	
(c) year or period of arrival	No	
3. Household and family characteristics		
(a) Relationship to head or other reference member of household	Yes (SQ)	
4. Demographic and social characteristics		
(a) sex	Yes (SQ)	
(b) Age	Yes (SQ)	
(c) Marital status	Yes (LQ)	
(d) Religion	Yes (SQ)	
(e) Language	No	
(f) Ethnicity	Yes (SQ)	
(g) indigenous peoples	No	
5. Fertility and mortality		
(a) Children ever born	Yes (LQ)	
(b) Children living	Yes (LQ)	
(c) Date of birth of last child born alive	No	Birth during the last 12 months (LQ)
(d) Age, date or duration of first marriage	Yes (LQ)	Age at marriage(LQ)
(e) Age of mother at birth of first child born alive	No	
(f) Household deaths in past 12 months	Yes (LQ)	
(g) Maternal or paternal orphan hood	Yes (LQ)	
6. Educational characteristics		
(a) Literacy	Yes (LQ)	
(b) School attendance	Yes (LQ)	
(c) Educational attainment	Yes (LQ)	
(d) Field of education and educational qualifications	No	
7. Economic characteristics		
(a) Activity status	Yes (LQ)	
(b) Time worked	No	
(c) Occupation	Yes (LQ)	

(d) Industry	Yes (LQ)	
(e) Status in employment	Yes (LQ)	
(f) Income	No	
(g) Institutional sector of employment	No	
(h) Employment in the informal sector	No	
List of population census topics as per P & R (Core topics are in bold)	Status of inclusion in Census Questionnaire of Sudan	Remarks
8. Disability characteristics		
Disability status	Yes (LQ)	
9. Agriculture		
	Yes (LQ)	

Housing Census

List of housing census topics as per P & R (Core topics are in bold)	Status of inclusion in Census Questionnaire of Sudan	Remarks
1. Type of living quarters	No	
2. Location	No	
3. Occupancy status	No	
4. Ownership	Yes (LQ)	
5. Rooms	No	
6. Number of bedrooms	Yes	Rooms used for sleeping
7. Floor space	No	
8. Water supply	No	
9. Main source of drinking water	Yes (LQ)	
10. Toilet	Yes (LQ)	
11. Sewage disposal	No	
12. Bathing facilities	No	
13. Kitchen- availability of	No	
14. Fuel used for cooking	Yes (LQ)	
15. Lighting and/or use of electricity	Yes (LQ)	
16. Solid waste disposal	No	
17. Heating	No	
18. Hot water	No	
19. Piped gas	No	
20. Use of housing unit	No	
21. Occupancy by one or more households	Yes (Census Listing Form)	
22. Occupants-number of	Yes (Census Listing Form)	
23. Type of building	No	
24. Construction material-outer walls	No	
25. Year of construction	No	
26. Number of dwellings in the building	Yes (Census Listing Form)	
27. Construction material-floors, roofs	No	
28. Elevator	No	
29. Farm building	No	
30. State of repair	No	
31. Age and sex of household head/reference	Yes (SQ)	
32. Tenure	Yes (LQ)	

33. Rental and owner-occupied housing costs	No	
34. Furnished/unfurnished	No	
35. ICT devices	Yes (LQ)	
36. Number of cars	Yes (LQ)	
37. Durable household appliances	Yes (LQ)	
38. Available outdoor space	No	

SQ- Short Questionnaire

LQ-Long Questionnaire

Tanzania

Census managers (about 4 single-spaced pages)

- (1) Experience with the most recent national population and housing census –Describe activities related to your country’s most recent population and housing census that were the most successful or the strongest, such as, the publicity campaign, mapping, the recruitment and training of enumerators, field work, use of ICT, dissemination of the data, etc.

Response from Tanzania:

Experience of the 2002 Tanzania Population and Housing Census:

Activities that were strongest succeeded during the 2002 Tanzania Population and Housing Census includes:

- Data capture – OMR Scanning of the 9,000,000 forms for 26 days instead of two and half years like the 1988 census
- Release of preliminary census results in time. These results were announced by Tanzania Presidents in Decembers 2002. These results were processed two months after the scanning exercise.
- Distribution of the census materials up countries – All 26 regions of Tanzania, all materials were distributed in time. These include; questionnaire, manuals and other related documents
- IEC was also succeeded in all areas of the Tanzania especially where nomadic population lived. UNFPA commissioned a consultant from Kenya she did a good job during enumeration and dissemination and utilization of the census results to our potential users.
- Recruitment and training of enumerators was also succeeded. Primary and Secondary School teachers were used as junior and senior enumerators.
- Cartographic work did not succeeded as it was planned because of the funding problems. In the actual fact cartographic work made Tanzania to postponed the 1998 census to 1999 census and eventually we managed to do it on 2002
- Dissemination and utilization of the census data did not succeeded as it was intended in our Dissemination Strategies due to limit resources allocated in this area.
- Data collection – Field work went on well. The rejection rate for the scanning exercise was below one percent, indicating that, quality of the data and handling of the questionnaire in the field was in high standard.
- The 2002 census organization structure did not work well given the fact that National Bureau of Statistics was not involved fully. All administration activities were performed by the then Ministry of Planning and Privatization. NBS was involved only on technical issue.

- (2) Plans for the next census
 - a. Provide a brief statement about plans for conducting the next population and housing census in your country. Group the plans by phase according to (1) preparatory tasks, (2) field operations, (3) data processing, (4) specialized analysis

by subject, (5) data dissemination. The statement may including those related to, for example, legislation for the census, overall planning, funding, mapping, ICT use, data editing, census data dissemination strategy, etc.

- b. With regard to plans mentioned in (a) above, please elaborate on related and significant problems either existing or anticipated that will or may affect the ability of your country to successfully conduct the next census.

Plans for the 2012 Tanzania Population and Housing census

The plans for the 2012 Tanzania Population and Housing Census are underway;

- Cartographic work is going on (GIS) – Up-dating and digitizing Enumeration Areas used in the 2002 Census – Six districts out of 129 districts all EAs have been digitized.
- Population Census Task Force had already formed by Director General, National Bureau of Statistics

Of course our plans of carrying the 2012 Tanzania Population and Housing Census will be grouped into three stages. These include;

1. Pre-enumeration activities ; Planning, formulation of census organization structure, work plan, budget, cartographic work, pilot test, questionnaire designing, sample designing, recruitment and training of enumerators, distribution of the census materials in the regions, selection of the methods that will be used to capture data (OMR or OCR or combination of the two).
2. Enumeration activities: These include: data collection in the field, IEC, preliminary results, etc.,
3. Post enumeration activities: Data capture, data analysis, data dissemination and utilization, post enumeration survey – evaluation of the census

Anticipated Problem;

1. Lack of funds like the previous censuses in Tanzania
2. Procurement and tendering processes of the census materials
3. Census Organization Structure – It could be a good idea if NBS could be given 100 percent mandate of carrying the census
4. Lack of donor commitment – Previous censuses, it was very difficult for some of the donors to put some funds in the census project. Our last census, donor's contributions was 46 percent whilst the remaining came from the government.

Uganda

Pre-workshop Assignment for Uganda

Background

The last population and housing census of Uganda was conducted in September 2002 by the Uganda Bureau of Statistics (UBOS). This was the sixth scientific census to be conducted in Uganda, the previous censuses having been conducted in 1948, 1959, 1969, 1980 and 1991. It was *de facto* in nature and information was collected in a face-to-face interview with the enumerators moving from household to household.

A uniform structured questionnaire was used for all areas in the country. A special self administered questionnaire was used by persons who spent the Census Night in Hotels and Lodges. Several committees were setup to manage the activity including the National Census Steering Committee (NCSC), Census Technical Advisory committee (CTAC) and the Census Management Team (CMT).

Good Lessons

a) Resource Mobilization – the task of the resource mobilization was with the National Census Steering Committee (NCSC), whose chair was the Deputy Secretary to the treasury. It was thus possible to raise slightly over one half of the Census budget (26 billion shillings) from the Government of Uganda.

b) Cost-effectiveness – the 2002 Census was one of the most cost-effective censuses conducted in Uganda at a cost of about US\$0.75 per head. This was achieved through:

- Complete integration of Census operations in mainstream UBOS activities as opposed to creating an independent secretariat. This saved on the cost of overheads and the human resource.
- Outsourcing some services such as delivery of materials,
- Use of hired vehicles for field operations instead of purchasing for the census

c) Content – The 2002 Census was the most comprehensive census ever undertaken in Uganda. It had five distinct modules namely:

- Population (30 questions)
- Housing (26 questions)
- Household based Agriculture
- Economic (Non-agricultural Micro and Small Enterprises)
- Community

Although some stakeholders were concerned about the affect the many modules might have had on the quality and timeliness of the results, the idea was welcomed by the majority.

d) Coverage – The census used one uniform questionnaire to cover all households in the entire country. This, it was possible to obtain information for lower level planning units, which is supportive of the decentralized administration and planning system currently operational in the country.

e) Publicity – The census had a comprehensive publicity strategy using many approaches including talk shows local FM radio stations, road shows and a ‘door to door’ campaign on the eve of the Census Night. This strategy ensured that every household was aware about the census activity before enumeration began.

f) Field Organization – All persons involved in census supervision had to undergo training on concepts and procedures.

- UBOS professional staff were deployed as supervisors (one per district) to oversee training and enumeration in all the 56 districts.

- Recruitment of field staff was fully decentralized but following guidelines set at the centre. This ensured that the right caliber of staff (locally acceptable) were recruited. However, a few cases of nepotism were reported.
- Detailed Training manuals and programmes were developed for all levels of training. This ensured ample training for all field staff.
- Due to the many local languages (more than 50) spoken it was not possible to translate the questionnaire in local languages. However, interviewers were issued with translation cards which had the questions written in local language.

g) Information Dissemination – One of the specific objectives of the 2002 Census was to ‘*evaluate, analyze and disseminate the census results at all administrative levels*’

- Timeliness - UBOS was able disseminate the preliminary results to facilitate the planning process. The preliminary, provisional and main results were published according to the dissemination plan and received positive publicity in the media. The Preliminary results were released in October 2002, two weeks after the end of the census enumeration.
- A Media workshop was held alongside the technical dissemination workshop of the Main results. This helped to clear the possible ambiguity and avoid misrepresentations of the census findings by the media
- Use of ICT – The results were available in both paper and electronic format. The UBOS website (www.ubos.org) was also used to disseminate the final results
- UBOS produced district specific reports to support decentralized planning.

h) Data Analysis – The census covered a wide array of topics and thus required an equally wide group to analyze the data. This was done by several nationals working in the different sectors covered in the census.

- Audience segmentation of analytical findings. A summary of the analytical report (Abridged Version) was produced for use by general readers, while the monographs target the sectoral planners.
- The census was linked with the Uganda National Household Survey (UNHS 2002/03). Thus, it was possible to apply regression models on the census data to obtain reliable estimates of poverty counts at lower planning levels (of at least 1,000 household each).
- UBOS is training and working with District Planning Units (DPUs) to produce district specific analytical reports.

i) Post-enumeration Survey – A Post Enumeration Survey (PES) was conducted. Although the PES enumeration was done late (about four months after the main census enumeration), it revealed a coverage level of 96 percent which enhanced the confidence of the office about the content and coverage of the main census.

Plans for the Next census

Uganda’s next census is scheduled for September 2012. Although, the planning has not yet started (owing to the delay in releasing the analytical results from the 2002 Census), the planning and implementation will be based on lessons learnt from the most recent census. These are summarized as below:

a) *General*

- There should be an office responsible for and oversees the entire census process from beginning (planning and fund raising) to end (dissemination). Strong advocates for the census should be identified and used.
- A complete rehearsal/testing of the census fieldwork operations should be done, including return of enumeration forms and data processing operations.
- Funding required for the census should be mainstreamed as part of the UBOS budget and raised with MoFPED and donors at an early stage. Funding and quality trade-offs should be fully recognised and that the right balance is struck between the two.

b) *Planning and Preparatory Activities:*

- The Census master plan should be detailed and realistic over the long term focusing on the whole range of activities from securing funding and the cartography work through to analysis and dissemination. Both statistical and non-statistical issues need to be covered.
- The cartography work needs to be well planned and timely balancing between resource availability, quality and closeness to the enumeration date.
- A protocol needs to be in place to guide the decision of inclusion of questions/modules in the census. All questions and instruments must be tested (pre-test and piloted).

c) Field Operations:

- UBOS needs to be more heavily involved in a supervisory role during the field operations including the training of district officials, the mobilisation of the community and overseeing the enumerators.
- UBOS should have strict guidelines for recruitment to make sure enumerators have the appropriate skills and are recruited on this basis.
- UBOS should consider continuing with the practice of recognising (and paying for) the mobilisation role of local council chiefs.
- could be more widespread in the next census. There is need to planned for the potential problem of inflation of the population figures by having sufficient supervision in.
- Ensure that fieldwork guidelines/manuals are clear on what to do in difficult situations e.g. conflict areas

d) Data processing:

- Data processing requirements need to be considered early on in the planning process so that decisions are made after careful consideration of the long-term implications.
- A forum for discussing data processing plans and operations should be established during the planning stages in order to ensure that such a huge undertaking does not fall on one person's shoulders. In particular, liaison between those responsible for cartography, field operations and data processing, which will be vital to the process, needs to be emphasised.
- The use of scanning technology should be evaluated for its viability and cost-effectiveness.

e) Data Analysis and Dissemination:

- A release calendar for census findings should be available so everybody knows when they can expect to receive information. Keep deadlines tight and monitor them
- The media should be kept involved by proactively engaging them in proceedings every time census data are reported.
- Working with authors outside UBOS is a good initiative which enriches the report and speeds up the process. However, UBOS needs to have good control of these.
- There is need to produce a wide range of publications to suit the different users, however these need to be well funded and resourced.
- Media workshops that run in parallel to the release of the main results are a good initiative and should be continued.

Recommended Core Topics

The United Nations recommended core topics are relevant to Ugandan's data needs. Sharing the experience of the last census that covered most of the core topics, data on the core topics can be collected with ease.

The following Recommended Core topics have been tested through the last census and data was collected with ease and of reasonable quality:

- Duration of Residence
- Place where present at time of census.
- Total Population
- Locality
- Country of Birth
- Citizenship
- Relationship to head or other household members
- Sex
- Children ever born
- Children living
- Date of birth of last child born alive
- Literacy
- School Attendance
- Activity Status
- Occupation
- Living quarters
- Location of living quarters
- Rooms
- Water supply system
- Main Sources of Drinking Water
- Toilet
- Bathing facilities
- Kitchen
- Fuel used for cooking
- Lighting
- Solid waste disposal
- Occupants
- Building type
- Construction materials
- Tenure
- ICT Technology

Not collected last Census but can be collected:

- Year or Period of arrival in the country
- Ownership
- Sewage Disposal

However, there are a few areas for which it is difficult to collect some data as per the recommendations. Some of these areas are highlighted below:

-Age and Date of Birth:

There is problem of collecting information on date of birth especially in areas where the level of literacy is high. Where age and dates of birth are collected, a high rate of inconsistency is observed.

-Place of Birth:

Because of the creation of new districts, place of birth may differ from place of enumeration for some body who had never moved because of belonging to a new district created from his parent district.

-Place of usual residence:

Collecting this kind of data is difficult because for many people, it is difficult to define their usual place of residence. Problem of double counting is likely to occur.

Place of usual residence at a specified time. It is not easy to collect this kind of information because of memory lapse.

-Industry:

Industry is one of the areas for which it is not easy to collect data

-Status in employment:

Status in employment not collected but likely to be problematic especially when data is being collected from a third party.

-Occupancy Status:

It is very difficult to get information on un-occupied building. This is because owners of such buildings do not necessarily stay around them. Information can easily be collected on buildings which are occupied by at least one household during census time.

-Year of Construction:

It is difficult to collect information on year of construction especially in urban areas where about 50 percent of the households stay in rented houses and the owners normally do not stay nearby. In addition, construction of buildings of permanent nature in many cases take a long period. Deciding which year to take, as year of construction would be a problem.

-Household deaths in the last 12 months:

Not easy to collect data on deaths in the last 12 months. If questions to do with death in most cases affect the motional feeling of the respondent and therefore affect his/her ability to give appropriate answers. There is also a problem of setting the boundaries of the last 12 months. There could be under reporting or over reporting.

-Ownership of the dwelling:

Although data has been collected on ownership status of the household occupying the dwelling unit, the possibility of collecting both can be explored.

-Rural-Urban Residence:

Efforts in most cases are made to disaggregate data by rural urban. However, there is a problem of deciding the urban areas. Some areas outside the gazetted urban areas have urban characteristics. Determination of the urban area and urban levels has been difficult. In order to have international comparison there is need to come up with standard international guidelines on how to identify (define) urban areas.

-Tabulation:

The recommended tables are good to form the basic tables. However, numerous data needs arise from time to time. There is therefore need to have a mechanism in place to meet the different data demands as they arise.

-Management:

One of the biggest challenges to carrying out a Population and Housing Census is lack of resources. Sometimes the census is delayed; some of the planned activities are delayed or completely not carried out due to limited resources. One of the key roles of the census manager should be to mobilise adequate resources for the census.

Quality control is a very important activity during census preparation and execution. The head of the different sections of the census office should be responsible for the quality of their output. The census manager should play the coordinating role.

Zambia

Country paper on the implementations of the core census topics and tabulation in the 2010 Census round: The Case of Zambia

By Richard Banda
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1. Introduction

In 2000, Zambia conducted its fourth comprehensive census of population and housing, the earlier ones being in 1969, 1980 and 1990. This was the first census in the new millennium and marked a significant milestone in the country's census undertaking by employing the use of Optical Mark Reading (OMR) technology in its data capturing strategy.

The major objectives of the 2000 Zambia census of population, housing and agriculture were:

- (i) To determine the total population count at the time of census disaggregated by age, sex, residence and other demographic and socio-economic characteristics, and to present such information at the lowest administrative geographical level
- (ii) To provide a comprehensive sampling frame for a comprehensive survey system and census of agriculture
- (iii) To provide information on the total eligible voter population, and determine the population in need of national registration cards and voter's cards in order for the Zambia Electoral Commission to prepare for massive voter registration and updating of the voters roll in readiness for the 2001 tri-partite elections
- (iv) To ensure that census data was disseminated quickly, efficiently and in user friendly formats to all users including Government, private sector, Non-governmental organizations, the general public and international users and organizations
- (v) To ensure that the census undertaking conformed to international standards and norms for census undertaking as recommended by the United Nations and the SADC Agreement on the 2000 round of censuses

2. Recommended core topics and tabulations for the 2010 round of population and housing censuses

(a) Population census

According to the draft *Principles and Recommendations for Population and Housing Censuses*, 27 core topics have been identified for consideration for inclusion in the 2010 population census round. These are as follows:

- (i) Total population
- (ii) Age
- (iii) Sex
- (iv) Relationship to head
- (v) Marital status
- (vi) Place of birth
- (vii) Place of usual residence
- (viii) Place of previous residence

- (ix) Place where present at time of census
- (x) Duration of residence
- (xi) Place of residence at specified date in the past
- (xii) Urban and rural residence
- (xiii) Country of birth
- (xiv) Citizenship
- (xv) Year or period of arrival in country
- (xvi) Literacy
- (xvii) School attendance
- (xviii) Education attainment
- (xix) Activity status
- (xx) Occupation
- (xxi) Industry
- (xxii) Status in employment
- (xxiii) Disability
- (xxiv) Children ever born
- (xxv) Children living
- (xxvi) Date of birth of last child born alive
- (xxvii) Household deaths in the past twelve months

The Zambia 2000 Census of population, housing and agriculture implemented 23 of the 27 core topics and these were made available in both published and unpublished tables and reports based on established international standards and recommendations for tabulation and analyses. Sufficient information at the individual level was collected on the topics to meet both the needs for analyses and tabulations, as well as to ensure that collected information was useful for local planning at the lowest administrative geographical level, and to enable international comparability.

Topics not implemented in the last census round were:

- (i) Place of previous residence
- (ii) Year or period of arrival in country
- (iii) Date of birth of last child born alive
- (iv) Household deaths in the past 12 months

While the first two topics were necessary in the assessment of internal and international migration, the topics/questions asked in the 2000 census adequately provided the necessary information for assessing both long term and short-term internal and international migration patterns. Information on international migration from the census has also been adequately complimented by the routine data collection at entry and exit border points and through other sources of official immigration statistics such as the department of immigration, the Ministry of tourism and the Zambia investment centre.

Information on the *date of birth of last child born alive* and *household deaths in the past 12 months* has been adequately collected in the demographic and health surveys system and in other household surveys conducted during the intercensal periods. Detailed fertility and mortality (adult, infant and child) have been collected in these surveys and supplemented those collected in the census.

(b) Housing Census

According to the draft *Principles and Recommendations for Population and Housing Censuses*, 21 core topics have been identified for consideration in the 2010 housing census round. These are as follows:

- (i) Age and sex of household head/reference person
- (ii) Living quarters, type of

- (iii) Location of living quarters
- (iv) Occupancy status
- (v) Occupancy by one or more households
- (vi) Occupants, number of
- (vii) Rooms, number of
- (viii) Ownership, type of
- (ix) Tenure
- (x) Building, type of
- (xi) Construction material of outer walls
- (xii) Water supply system
- (xiii) Main source of drinking water
- (xiv) Kitchen
- (xv) Bathing facility
- (xvi) Toilet
- (xvii) Sewage disposal
- (xviii) Solid waste disposal, main type of
- (xix) Fuel used for cooking
- (xx) Lighting, type of and/ or electricity
- (xxi) Information Communication technology (ICT) devices, availability of

The Zambia 2000 Census of population, housing and agriculture implemented 17 of the 21 core topics recommended for collection in housing censuses, and these were made available in both published and unpublished tables and reports based on established international standards and recommendations for tabulation and analyses. Sufficient information at the household level was collected on the topics to meet both the needs for analyses and tabulations, as well as to ensure that collected information was useful for local planning at the lowest administrative geographical level, and to enable international comparability.

Topics not implemented in the last census round were:

- (i) Main source of drinking water
- (ii) Sewage disposal
- (iii) Bathing facilities
- (iv) Occupants, number of

Information on *Main source of drinking water* was not directly collected in the census, however access to safe drinking water was reliably derived from the information collected on *Main source of water supply for the house*. Information on main source of drinking water has been collected by the many household surveys conducted between censuses, supplementing census data. Number of occupants was not directly collected, however it could be reliably derived from the information on occupancy, number of rooms and total population/size of household. Bathing facilities and sewage disposal was not collected for other reasons not stated anywhere.

3. Conclusion: Implementation of the core recommended topics and tabulations in the Zambia 2010 Census of population, housing and agriculture

Based on the experience of the 2000 Census of population, housing and agriculture, Zambia already has experience and is likely to implement many of the recommended topics and tabulations, with little problem. Most of the core topics have already been incorporated as of the 2000 Census and the questions standardised to meet international comparability. Therefore inclusion of any new topics and tabulations will be easy to implement.

Collection of information during the last census was without much problems due to the adequate organisational structures put in place and the adequate publicity and educational campaigns aimed at informing and ensuring public participation in the census exercise. Comprehensive training of field and supervisory staff ensured that quality data was collected.

The use of OMR technology greatly reduced the time for processing, tabulation, analysis and dissemination of census results to the benefit of users.

With lessons from the 2000 census, the challenges for the 2010 census may lay in resource mobilization, timely disbursement of the allocated resources for the census exercise.



ZAMBIA 2000 CENSUS EXPERIENCE AND 2010 CENSUS PLANS

**PAPER PRESENTED AT THE 2010 CENSUS WORKSHOP IN MAPUTO, MOZAMBIQUE
30TH OCTOBER TO 3RD NOVEMBER 2006**

**CENSUS MANAGER'S BRIEF
BY
W MAYAKA
DEPUTY DIRECTOR (SOCIAL STATISTICS)**

**CENTRAL STATISTICAL OFFICE
LUSAKA
ZAMBIA**

1. ZAMBIA CENSUS 2000 EXPERIENCES

The Census comprised 3 phases:

- a) Pre enumeration
- b) Enumeration and
- c) Post-Enumeration phases

The pre-enumeration activities included Planning and Resource Mobilization, Cartographic work (Mapping), determination of enumeration procedures, designing and development of census instruments, publicity and recruitment, pilot census and training of census personnel etc.

The Enumeration phase involved deployment of field personnel in enumeration areas and the actual collection of information.

The Post Enumeration activities included conducting Post Enumeration Survey, Data Processing, (Scanning, Editing and Verification) Analysis and Report Writing and Dissemination of results.

The most successful activities included mostly the Analysis, Publication and Dissemination of Census results.

Even if there was a delay in the release of the final census reports (after 3 years). The preliminary core indicators were released 2 years after the census and the census preliminary population figures were released 6 months after the census. The content of the analysis was also very good for the first time in Zambia, population projections were available with impact of HIV/AIDS and without impact of HIV/AIDS. Epidemiological projections of HIV/AIDS were also produced.

2. PLANS FOR CONDUCTING NEXT 2010 CENSUS

2.1 Preparatory Tasks

The preparatory task will include:

2.1.1 Setting up Census Committees at various levels as follows:

- a) National Census Committee under the Chairperson's ship of the Secretary to the Cabinet, comprising Permanent Secretaries,
- b) An adhoc committee of Cabinet Ministers,
- c) Provincial and District Census Committees,
- d) A National Census Secretariat,
- e) Various census Technical Committees such as:
 - i. Census Planning and Methodological Technical Committee
 - ii. Cartography Technical Committee
 - iii. Data Processing and ICT Use Technical Committee
 - iv. Census Education and Publicity Technical Committee
 - v. Security, Logistics, Transport, Administration and Committee,
 - vi. Finance and Resource Mobilization Committee.

This stage will also involve circulation of a Cabinet Memorandum to seek Cabinet/Government approval to conduct the 2010 Census.

2.1.2 The other major preparatory activity is the census-mapping programme. This involves the re-mapping of the entire country to update the census frame. This is beginning in November 2006 to January 2010.

2.1.3 The other preparatory activities include:

- Planning and resource mobilization (started and on going). The Census budget is incorporated in the Annual National Budget and the five year National Development Plan.
- Determination of enumeration procedures (start January 2007)
- Determination of data processing procedures and manuals
- Design and development of census instruments (start December 2006)
- Design and development of data processing procedures and manuals
- Design and development of tabulation plans and analysis procedures
- Publicity and recruitment (publicity to start January 2008, recruitment to start 2009)
- Pilot census (2009)
- Training of census personnel (2010) long-term and medium term specialized training of technical staff such as Statisticians and Demographers/Analyst
- Long-term and medium term specialized training of Data Processing staff (computer experts)

2.2 Field Operations

The field operations will include

- Training of field staff in the provinces and districts.
- Deployment of field personnel in the enumeration areas.
- The collection of information from the population involving canvassing by specially trained enumerators.
- Field coding and batching
- Field editing and verification

2.3. Data Processing

- Training of data control clerks
- Training of scanning staff
- Scanning the questionnaires
- Computer editing and verification
- Implementation of data control systems
- Computer test runs
- Tabulation

2.4. Specialized analysis by subject

These will be National and Provincial Census Reports. The Provincial Reports will provide information at Provincial and District level. However, some specialized reports will provide

information at the lowest level of Ward and Constituency level.

Data Analysis and Dissemination will involve the following:

The Analysts will be specialists drawn from various subject matter areas and within CSO and from other institutions. GIS specialists develop a data base which will be used to link the Census variables with Geographic information at the lowest aggregated level to produce GIS indicators such as the Census Atlas and the GIS data bank. The Census will be analyzed in three phases as follows:

- a) The production of the preliminary report.
- b) The production and dissemination of the core indicators
- c) The production and dissemination of the final census analytical reports.

The core indicators will be produced based on the following:

- a) The SADEC census project core development indicators.
- b) The UN minimum national data sets, millennium development goals.
- c) The Fifth National Development Plan (TNDP) data requirements.
- d) The other sector development frameworks such as Basic Education Sector Investment program etc.
- e) The needs of other national and international users.

The content of the analytical reports will include:

- Evaluation of coverage and content errors.
- Population size (both de jure and de facto) growth composition and distribution.
- Language of communication, both predominant and second language.
- Ethnicity.
- Education and literacy level patterns and trends.
- Economic activity characteristics of the population (levels, patterns and trends).
- Fertility levels, patterns and trends.
- Mortality levels, patterns and trends (child, infant and under five mortality. Life expectancy at birth and exact age adult survival/adult mortality)
- Disability statistics, levels, patterns and trends.
- Population projections with and without the impact of aids.
- Labour force projections.

The department will also produce descriptive reports or tables in addition to the analytical reports.

There will be National and Provincial Census Analytical Reports. The lowest level of data desegregation of the data sets will be at ward level. However, the Provincial reports will be tabulated at district level.

There will also be specialized reports on:

- Housing and Household characteristics
- Migration and Urbanization
- Agriculture report
- Constituency development report
- Gender Analytical Report
- Methods report
- Regional Development Report

- The Census Atlas
- The Post-Enumeration Survey Report
- The Administrative Report
- The Refugees Report
- Child and Youth Profile
- Etc.

The Dissemination of census results will include:

- Through National and provincial Dissemination seminars and workshops
- Press Releases
- Presentation Slides
- Radio, Television programmes
- Drama
- Fliers and billboards
- Use of ICT like internet and websites
- Visits to the CSO Library and Publications unit by the general public, students from research and educational institutions.

3. PERCEIVED AND ACTUAL CONSTRAINTS FOR THE 2010 CENSUS

The major perceived constraints or anticipated are mainly as follows:

- a) Funding - the resources may either be not adequate or may not be released on time in accordance with the Census Work Plan and Budget.
- b) The procurement may be too slow. Hence the reason for beginning processes early.
- c) Insufficient equipment and materials such as vehicle and GIS equipment for mapping.
- d) Need for quality mapping which has been a problem in the past, which we hope, will not happen this time when we begin the mapping exercise this year (2006) to 2009.
- e) Need to secure Government and cooperating partners other stakeholder backing for the conduct of the 2010 census in good time so that it can be a priority in the budget of Government and Cooperating Partners hence achieve maximum support.
- f) There is a shortage of trained specialized staff. The Department is currently recruiting and funds are needed to train more staff in various specialized areas for long term capacity building.
- g) There is need for full preparedness in the use of scanning technology. It had some problems in the last census mainly due to lack of adequate preparedness since it was used for the first time in a census.
- h) Need for an efficient and effective archiving system. This is still not adequate and the Department is currently working on an archiving system to ensure proper storage of census documents and data.

Zimbabwe

PREPARATIONS FOR THE 2012 ZIMBABWE POPULATION CENSUS

W. T. MAPETA
CENTRAL STATISTICAL OFFICE – ZIMBABWE

Census Date : 17/18 August 2012

Introduction

Zimbabwe has so far been able to conduct a census exactly every ten years since 17/18 August 1982. All indications are that the country will definitely conduct a census in 2012. The 2012 census is being operationally planned for along the same lines as the 2002 and 1992 censuses. This is in line with one of the recommendations made after the evaluation of the 1992 census operations which was that all future censuses were, as much as possible, to stick to operational schedules of the 1992 census. The evaluation by UNFPA/CST noted that the 1992 Census had been conducted following well known and acceptable procedures.

Preparatory Tasks

The management structures put in place for the 2002 Population Census are still intact as work on the census is still to be finalized. Zimbabwe does not, as yet, have a fully fledged Census Office. Such an office will come into being as soon as the Central Statistical Office becomes a semi-autonomous agency.

One of the major tasks is to assign specific responsibilities to individuals and committees that are expected to spearhead census operations. In the previous exercise there was confusion as to who was supposed to do what and when especially at sub national levels. In addition, all efforts will be made to ensure that major players are adhering to the timetable of activities.

The new legislation that will be put in place and the new status of the office should, to a large extent, remove the bureaucratic bottlenecks that delayed implementation of census activities in the last exercise

Field Operations

Planning for the 2012 Census will start gathering momentum in 2007 when the office embarks on the 2007 Intercensal Demographic Survey (ICDS). This survey is used to a large extent as the pilot for the next census.

The enumeration area maps that were used in the 2002 Census will also be used in the 2012 Census. These maps are continuously being updated in the intercensal period and are stored in both hard copy and electronic form. It is planned that in 2010 a rigorous listing exercise will be embarked on with a view to standardize the enumeration areas. This should see some enumeration areas being subdivided and others being merged.

A geocode that allows for comparison of 2002 and 2012 enumeration areas, even after subdivision or merging has occurred, is already in place.

It is also planned to streamline the supervision levels as some posts appeared to be very superfluous in the 2002 Census. Recruitment of staff needs to be closely monitored to ensure that the right people are put in place.

Core Questions

While it is foreseen that most of the questions contained in the 2002 Census will be retained, there will be extensive dialogue with users in order to ascertain their information needs. To a large extent the contents of the

2007 ICDS will be indicative of the 2012 core questions. The broad areas covered in 2002, which will most likely be retained and will influence the core questions, are on:

- Socio-economic and demographic characteristics of household members and disability will be included here.
- School attendance and educational attainment for all persons age 3 years and over
- Labour force characteristics
- Fertility, mortality and migration
- Household living conditions

Data Processing

The office has been using the traditional data entry method to enter all data collected by the organization. Scanning technology has been around for some time now although the early users have met a number of problems. This technology is also being used by a number of local organization including the Zimbabwe Examination Council (ZIMSEC) to mark some of the local examinations. It means that there is experience and expertise in the country to tap from.

Currently CSO is discussing with ZIMSEC about the possibility of scanning the next census. The idea is to start with a large demographic survey and there is one scheduled for next year (ICDS). After this the office will be in a position to decide whether or not to use the technology for a full census. The ZIMSEC has already indicated its willingness to work with CSO on the scanning exercise.

Census Analysis and Dissemination

The census analysis committee which is in place will be retained. This committee is made up of subject matter drawn from government and non government organizations. This initial analysis of the data will be guided information needs of users. Further/in-depth analysis of data will be done any interested party.

Dissemination of information will be done through workshops, publications, electronic media etc. The dissemination will include aspects on how statistical data can be used for development planning, monitoring and evaluation of programmes. The 2002 Census was not disseminated effectively because of financial constraints. At the moment the office is examining possible ways of disseminating the 2012 Census data in the event that the economic climate does not change much.

Financing the Census

Financing of the forthcoming 2012 Census will largely be the responsibility of the Government of Zimbabwe. The last census (2002) was wholly funded by government and this scenario is not likely to change much. The estimated cost of the 2012 Census is US\$15 million. The adoption of new technologies depends on availability of foreign currency and definitely there is need for external assistance. It is envisaged that such assistance will be in the form of equipment costing about 10 percent of the total census budget.

Human Resources

It is very important to retain staff who have been worked on the 2002 Census. It is hoped that the new status of the office will enable it to improve working conditions to the extent of drastically reducing flight of staff from the office.

The macroeconomic environment should also improve as this enhances efficient and effective planning and budgeting.

Conclusion

Zimbabwe's preparations for the 2010 Round of Population and Housing Census are still very hazy as the country is finalizing work on the 2002 Census. The structural changes envisaged for the office will also

influence the direction of the planning effort. However, the changes should see an improvement in the way the office operates.

PRE-WORKSHOP ASSIGNMENT
G. T. MATSINDE
CENTRAL STATISTICAL OFFICE – ZIMBABWE

How practical would it be for Zimbabwe to implement International Guidelines outlined in the draft *Principles and Recommendations for Population and Housing Censuses, Revision 2* with regard to:

- 1) Recommended core topics
- 2) Recommended tabulations
- 3) Census Management and other issues

Introduction

Zimbabwe has successfully carried out complete post independence Population Censuses since 1982. The last and most recent census was carried out in 2002. The 2002 Population and Housing Census was carried out using United Nations and SADC guidelines and recommendations on conducting Population censuses. In addition, census questionnaires from countries within the region which had recently undertaken Population censuses were also studied.

1. Recommended Core Topics

The preparation of the questionnaire including the selection of topics normally begins at least 3 years before undertaking the actual census. A census- user inquiry survey is undertaken where potential data users fill in a questionnaire indicating the type of data they would require from a Population Census. In making the selection of topics, due regard is paid to the usefulness of historical continuity in providing opportunity for comparison of changes over a period of time. It is therefore necessary to consult a broad range of users of census data to review periodically the topics traditionally investigated and to re-evaluate the need for the series to which they contribute, particularly in light of new data needs and alternative resources that may have become available for investigating topics covered in the Population Census.

A number of factors are taken into account before reaching a final decision on the census content.

- a) In Zimbabwe, during the selection of topics, prime importance is given to the fact that Population Censuses should satisfy national needs. Therefore the country's decision with regard to the topics to be covered depends upon a balanced appraisal of how urgently the data are needed and whether the information could be equally obtained from other sources. That is why global and regional census recommendations play a vital role providing information about standard census topics and related definitions and concepts based on a wide range of national census experience.
- b) Zimbabwe also places great importance on comparability of census data with those of other countries on the basis of consistent concepts, definitions and classifications.
- c) An Inter-Ministerial Technical Census Committee drawn from the major users of census data, normally have a major input in questionnaire design, layout and content. The topics selected are usually such that the respondents will be willing and able to provide adequate information on them. Thus, suitability of topics becomes very crucial and topics likely to arouse fear, prejudice or superstition or questions too complicated and difficult for the average respondent to answer should be avoided.
- d) Resource availability plays a significant role in the selection of topics to be covered. An accurate and efficient collection of data for a limited number of topics, followed by prompt tabulation and

publication, is more useful than the collection of data for an overambitious list of topics, which cannot be investigated, processed or disseminated timely.

The Zimbabwe 2002 Population Census questionnaire covered 8 topics which are on the list of recommended core topics based on *The Principles and Recommendations for Population and Housing Censuses, Revision 2*. The topics selected provided information on:

- Geographical and internal migration characteristics
- International migration characteristics
- Household and family characteristics
- Demographic and social characteristics
- Fertility and Mortality
- Educational characteristics
- Economic characteristics
- Disability characteristics

It should be stressed that countries should not strive to cover all topics in the list of Population topics. Rather, countries will need to make their selection based on country data needs bearing in mind current regional recommendations pertaining to census topics.

2. Recommended Tabulations

The tabulation plan emanates from the information needs expressed by various users of statistics and is the structure chosen for the presentation of information from a survey or census. The extent of the analysis required for the various reports dictated the degree of detail of the tables for the different topics.

The tabulation plan for the Zimbabwe 2002 Population Census was designed in such a way that it fulfilled the most essential and generally required tabulations. These tabulations were also designed with the potential for producing statistics at the lowest geographical level with a view to meet data needs for evidence-based planning, monitoring and implementing national policies.

On the assumption that the majority of users would appreciate a quick Province-wise publishing, the Central Statistical Office adopted a strategy where data would be published as soon as data processing for a Province was completed. The Provincial Reports, mainly descriptive to their character and with limited comparisons between districts, would then be followed by a National Report with deeper analysis and comparisons between Provinces.

All basic tables generated from the census data and included in the tabulation plan are available to the public in hard copy. Other additional census tables are available on request and customized tabulations can be made according to user-specific demand.

3. Census Management

In Zimbabwe several organizational structures are put in place in order to ensure that a Population Census is carried out efficiently and with maximum cooperation from the public. While the Central Statistical Office through the Central Census Office was the executing agency for the 2002 Population Census, several important committees were set up to advise and guide the office. The committees were the National Census Committee, Inter-Ministerial Technical Committee, Transport and Recruitment Committee, Provincial and District Census Committees, Central Census Committee and Census Analysis Committee. These various committees complimented each other to ensure the success of the census and members of the Inter-Ministerial Technical Committee were also involved in the training of field staff, supervision and editing of the questionnaires. The advisory and promotional functions of these various committees were clearly defined and the final

responsibility for planning rested with the executing agency.

The involvement of major users when conducting a Population census ensures a sense of national pride and ownership to those assigned to undertake this massive exercise. These consultations assist the census authorities in planning for a census that, within the resources available is as responsive as possible to user need in terms of the collection, processing, tabulation, storage and availability of meaningful data. Thus the involvement of key users in the Zimbabwe Population Census preparations and execution is in line with international guidelines and recommendations.

4. Conclusion

Zimbabwe has successfully undertaken 3 Population Censuses since independence in 1980. The 2002 Population Census was wholly funded by the Zimbabwean Government and carried out by locals. By sending locals to attend various international and regional training workshops the country now boasts the capacity to carry out a Population Census with very minimal technical assistance from outside.

The Principles and Recommendations for Population and Housing Censuses, Revision 2 covers a list of topics to be considered when carrying out a Population and Housing Census. Zimbabwe adheres to international “best practices” when conducting its censuses. The country implemented most of these international guidelines during the last census, with regard to preparatory work, (*including mapping, household listing, pilot census, publicity, questionnaire design, census calendar etc*), staff recruitment & training, enumeration, data processing and data dissemination. However there is still need to strengthen the capacity of the country in terms of administrative organization, operational implementation of the census and tabulation programme and database design for quality assurance and improvement programme.

Appendix 2 Agenda

United Nations Workshop on the 2010 World Programme on Population and Housing Censuses

Maputo, Mozambique, 30 October – 2 November 2006

Monday, 30 October 2006

8:30 – 9:30 a.m. **Registration of participants**

9:30 – 10:30 a.m. **Opening**

Remarks by a representative of INE
Remarks by a representative of UNSD
Remarks by a representative of UNDP
Formal opening by a senior official of the host country

10:30 – 10:45 a.m. **Coffee Break**

10:45 a.m. – 11:15 a.m. **Organizational matters**
Brief self-introduction by participants
Administrative issues
Adoption of work programme

11:15 a.m. – 11:30 p.m. **The 2010 World Programme of Population and Housing Censuses and the road to the Principles and Recommendations, Revision 2**

11:30 p.m. - 12:30 p.m. **Principles and Recommendations for Population and Housing Censuses, Revision 2 - Overview of major changes**

<p>A presentation on the main issues that have gone into the revision of the United Nations Principles and Recommendations for Population and Housing Censuses, highlighting the changes or features that distinguish Revision 2 from Revision 1. The presentation will include a special focus on emerging alternative methodological approaches to the traditional census.</p>
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- **Presentation by UNSD**
- **General discussion**

12:30 - 2:00 p.m. **Lunch Break**

2:00 – 3:00 p.m.

Principles and Recommendations for Population and Housing Censuses, Revision 2 – Recommended core topics

A presentation on the recommended core topics including what they are and the difference in change from a process driven approach in Principles and Recommendations Revision 1 to an output driven approach in Revision 2

- **Presentation by UNSD**
- **General discussion**

3:00 – 3.15 p.m.

Coffee Break

3:15 p.m. – 4:30 p.m.

Principles and Recommendations for Population and Housing Censuses, Revision 2 - Recommended tabulations

A presentation on the recommended tabulations and other types of tabulations in the revised Principles and Recommendations including on the rationale behind the choice of tabulations. The session will also include a presentation on the role of the United Nations *Demographic Yearbook* in the dissemination of results from the 2010 round of population and housing censuses.

- **Presentation by UNSD**
- **General discussion**

Tuesday, 31 October 2006

8:30 – 10:00 a.m.

Application of the Principles and Recommendations for Population and Housing Censuses (Revision 2) in national censuses

A discussion to assess national capacity to apply the Principles and Recommendations, Revision 2 in national censuses, including in selected areas such as planning, methodology, as well as the recommended core topics and tabulations. The discussions are also intended to identify ways of improving the capacity of national statistical offices to implement the revised Principles and Recommendations

- **Plenary**
- **Working Groups**

10:00 – 10:15 a.m.

Coffee Break

- 10:15 a.m. – 12:00 p.m. **Application of the Principles and Recommendations for Population and Housing Censuses (Revision 2) in national censuses**
- **Working Groups (contd.)**
- 12:00 – 1:30p.m. **Lunch Break**
- 1:30 – 2:30 p.m. **Application of the Principles and Recommendations for Population and Housing Censuses (Revision 2) in national censuses**
- **Working Groups (contd.)**
- 2:30 – 2:45p.m. **Coffee Break**
- 2:45 – 4:30 p.m. **Application of the Principles and Recommendations for Population and Housing Censuses (Revision 2) in national censuses**
- **Presentations of group discussions**
 - **General plenary discussion**

Wednesday, 1 November 2006

- 8:30 – 10:00 a.m. **Planning and carrying out a national census in the 2010 round of population and housing censuses: challenges and practical solutions**

The discussions are aimed at identifying potential challenges (such as lack of qualified staff, lack of technical capacity for tasks such as project management, geocoding, outsourcing, analysis and dissemination etc.) faced by countries in carrying out a national census and presenting practical solutions to overcome these challenges. The discussions will be structured along the following broad topics: (1) planning and organization; (2) field work; (3) analysis and dissemination.

- **Plenary**
 - **Working Groups**
- 10:00 – 10:15 a.m. **Coffee Break**
- 10:15 a.m. – 12:00 p.m. **Planning and carrying out a national census in the 2010 round of population and housing censuses: challenges and practical solutions**
- **Working Groups (contd.)**
- 12:00 – 1:30p.m. **Lunch Break**

1:30 – 2:30 p.m. **Planning and carrying out a national census in the 2010 round of population and housing censuses: challenges and practical solutions**

– **Working Groups (contd.)**

2:30 – 2:45p.m. **Coffee Break**

2:45 – 4:30 p.m. **Planning and carrying out a national census in the 2010 round of population and housing censuses: challenges and practical solutions**

– **Presentations of group discussions**

– **General discussion**

Thursday, 2 November 2006

9:30 – 10:30 a.m. **Role of ECA in the 2010 World Programme of Population and Housing Censuses**

10:30 – 11:00 a.m. **Coffee Break**

11:00 a.m. – 12:00 p.m. **Presentation and discussion of workshop conclusions**

12:00 – 1:30p.m. **Lunch Break**

1:30 – 4:30 p.m. **Presentation and discussion of workshop conclusions (contd.)**

Appendix 3 List of Participants

Country	Participant
1. Angola	Mr. Silvio C. Teixeira de Carvalho Senior Worker Instituto Nacional de Estatistica Luanda, Angola
2. Angola	Mr. Lupini Toni Statistician Instituto Nacional de Estatistica Luanda Angola
3. Botswana	Mr. Phetogo P. Gopolang Statistician Central Statistics Office Gaborone, Botswana
4. Botswana	Mr. Phaladi Labobedi Statistician Central Statistics Office Gaborone, Botswana
5. Botswana	Ms. Susan Matroos Principal Statistician Central Statistics Office Gaborone, Botswana
6. Botswana	Mr. Motshabi Moreti Principal Statistical Officer Central Statistics Office Gaborone, Botswana
7. Botswana	Mr. Noah Salakae Statistician Central Statistics Office Gaborone, Botswana
8. Egypt	Mr. Ahmed Gomaa Abd El Al El-Bishehy Head of Technical Affairs of Census Central Agency for Public Mobilization and Statistics (CAPMAS) Cairo, Egypt
9. Egypt	Mr. Ashraf Sayed Mostafa Hanaurah Manager Central Agency for Public Mobilization and Statistics (CAPMAS) Cairo, Egypt
10. Ethiopia	Mr. Gezahegn Shimelis Tadesse Senior Researcher Central Statistical Agency Addis Ababa, Ethiopia
11. Ethiopia	Mr. Eskindir Tenaw Team Leader, Sampling Methodology Central Statistical Agency Addis Ababa, Ethiopia
12. Gambia	Mr. Alieu Sarr Principal Statistician Central Statistics Department Banjul, the Gambia

Country	Participant
13. Gambia	Mr. Baba S.A. Suwareh Senior Statistician Central Statistics Department Banjul, the Gambia
14. Ghana	Mr. David Yenukwa Kombat Assistant Chief Statistician Ghana Statistical Service Accra, Ghana
15. Ghana	Mr. Gershon P.Y. Togoh Senior Statistician/Demographer Ghana Statistical Service Accra, Ghana
16. Kenya	Mr. Fredrick Otieno Okwayo Head, Population & Social Statistics Division Central Bureau of Statistics Nairobi, Kenya
17. Kenya	Mr. Christopher Ndayara Omolo Demographer Central Bureau of Statistics Nairobi, Kenya
18. Liberia	Mr. T. Edward Liberty Director General Liberia Institute for Statistics and Geo-Information Services Monrovia, Liberia
19. Liberia	Mr. Augustine Saah Fayiah Director, Surveys and Censuses Liberia Institute for Statistics and Geo-Information Services Monrovia, Liberia
20. Malawi	Mr. Macleod W. Mwale Statistician National Statistical Office Zomba, Malawi
21. Malawi	Ms. Mercy Kanyuka Deputy Commissioner National Statistical Office Zomba, Malawi
22. Mauritius	Ms. Narainee Devi Gujadhur Acting Statistician Central Statistics Office Port Louis, Mauritius
23. Mauritius	Ms. Yasmin Cassimally Acting Deputy Director Central Statistics Office Port Louis, Mauritius
24. Mozambique	Mr. Joao Dias Loureiro President Instituto Nacional de Estatistica Maputo, Mozambique

Country	Participant
25. Mozambique	Mr. Manuel Gaspar Vice President Instituto Nacional de Estatistica Maputo, Mozambique
26. Mozambique	Mr. Arao Balate Director of Census and Survey Instituto Nacional de Estatistica Maputo, Mozambique
27. Mozambique	Mrs. Fatima Zacarias Director of Demographic, Vital and Social Statistics Instituto Nacional de Estatistica Maputo, Mozambique
28. Mozambique	Mr. Cassiano Soda Chipembe Demographer Instituto Nacional de Estatistica Maputo, Mozambique
29. Mozambique	Mr. Atilio Pizzaro Statistician Demographic and Social Statistics Branch Instituto Nacional de Estatistica Maputo, Mozambique
30. Mozambique	Ms. Destina Eduarda S. Uinge Director of Integration, Coordination and External Relations Instituto Nacional de Estatistica Maputo, Mozambique
31. Mozambique	Mr. Lars Carlsson Team Leader INE's Scandinavian Program Instituto Nacional de Estatistica Maputo, Mozambique
32. Namibia	Ms. Othillie Mwaalele Mwazi Chief Statistician Central Bureau of Statistics National Planning Commission Windhoek, Namibia
33. Namibia	Ms. Liina Ndafewayo Kafidi Deputy Director Central Bureau of Statistics National Planning Commission Windhoek, Namibia
34. Nigeria	Mr. Samson Olanipekun Deputy Director (Planning) National Population Commission Abuja, Nigeria
35. Nigeria	Ms. Ozavize Winful Chief Statistician National Population Commission Abuja, Nigeria

Country	Participant
36. Seychelles	Ms. Helena I. De Letourdis Principal Statistician National Statistics Bureau of Seychelles Victoria, Mahé, Seychelles
37. Seychelles	Mr. Richard John Brian Betsy Senior Statistical Officer National Statistics Bureau of Seychelles Victoria, Mahé. Seychelles
38. Sierra Leone	Mr. Joseph Aruna Lawrence Kamara Statistician General Statistics Sierra Leone Freetown. Sierra Leone
39. Sierra Leone	Mr. Andrew Bob Johnny Director, Census & G.I.S. Statistics Sierra Leone Freetown. Sierra Leone
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Appendix 4 Pre-workshop assignment (description)

United Nations Workshop on the 2010 World Programme on Population and Housing Censuses

Maputo, Mozambique, 30 October – 2 November 2006

Pre-workshop assignment

As part of the preparations for the workshop, countries are requested to prepare this pre-workshop assignment based on their national experiences as specified below. This information is essential to the workshop as it will form the basis for the group discussions.

The intended respondent (workshop participant) is indicated next to each assigned activity in terms of whether it is all participants, census methodologists, or census managers. Consolidated statements from each country are encouraged.

A hard copy of the draft Principles and Recommendations for Population and Housing Censuses, Revision 2 will be distributed at the workshop. This document is also available on line at <http://unstats.un.org/unsd/demographic/sources/census/default.aspx>.

A: Requested background information per country

For each participating country, please **bring to the workshop** a copy of the following materials that were used in your last population and housing census:

- (1) enumeration questionnaire (s)
- (2) enumerators' manual
- (3) supervisors' manual
- (4) the administrative report (if available)
- (5) other census relevant material/reports

B: Census methodologists (about 3 single-spaced pages)

Based on the draft *Principles and Recommendations for Population and Housing Censuses, Revision 2*, prepare a country statement on how practical (ease, relevance, etc.) it would be for your country to implement these international guidelines with regard to:

- (1) Recommended core topics
- (2) Recommended tabulations
- (3) Census management and other issues covered in the draft *Principles and Recommendations*

C: Census managers (about 4 single-spaced pages)

- (3) Experience with the most recent national population and housing census –Describe activities related to your country's most recent population and housing census that were the most successful or the strongest, such as, the publicity campaign, mapping, the recruitment and training of enumerators, field work, use of ICT, dissemination of the data, etc.
- (4) Plans for the next census

- a. Provide a brief statement about plans for conducting the next population and housing census in your country. Group the plans by phase according to (1) preparatory tasks, (2) field operations, (3) data processing, (4) specialized analysis by subject, (5) data dissemination. The statement may including those related to, for example, legislation for the census, overall planning, funding, mapping, ICT use, data editing, census data dissemination strategy, etc.
- b. With regard to plans mentioned in (a) above, please elaborate on related and significant problems either existing or anticipated that will or may affect the ability of your country to successfully conduct the next census.