

Draft

**GUIDANCE NOTE FOR THE IN-DEPTH ANALYSES OF
DATA FROM A
POPULATION AND HOUSING CENSUS**

By

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TABLE OF CONTENTS

Introduction	3
The Content of Conventional Ordinary Household Questionnaires.....	4
List of Variables in most African Census Household Questionnaires.....	5
Themes for in-depth Analyses.....	5
Interrelationships between the variables in the ordinary household questionnaires and the thematic analyses.....	6
The Process of in-depth data analyses itself.....	9
The inter-relationship between the themes of analyses.....	9
The chronogram of activities for census data analyses.....	10
Some indicators of the MDGs that can be generated after in-depth analyses of census data.....	14
Proposed outlines for the main themes and for other census products.....	16
Population size, Distribution and Structure.....	17
Socio-cultural Characteristics of the population.....	18
Marital Status Characteristics of the population.....	19
Analysis of Fertility and Nuptiality.....	20
Analysis of Mortality Levels and Differentials.....	21
Household Size and Structure.....	22
Economic Activity Characteristics of the Population.....	23
Educational Characteristics of the Population.....	24
Analysis of Housing and Living Conditions.....	25
Analysis of Non-monetary poverty.....	26
The Situation of Women.....	27
The Situation of Children, Adolescents and Youth.....	29
The Situation of Handicapped Persons.....	31
The Situation of Elderly Persons.....	32
Population Projections for the Country (25-50 years).....	33
A Synthesis of the Results of the Analyses of the Census Results.....	35
Outline of Regional Monographs.....	38
The Geo-demographic Atlas.....	40

INTRODUCTION

No data collection operation should be considered as having been successful until its results have been analyzed, published and properly disseminated for use by the end-users. This statement is most relevant in the case of population and housing censuses which are costly ventures that most countries can only afford in ten-yearly intervals. In effect most African countries are even finding it difficult to respect this interval.

Being the only data collection operation that covers the entire resident population over the whole national territory, it is only reasonable that such a valuable dataset be exhaustively analyzed in order to provide ample details on the various sub-populations and by administrative unit in order to provide a firm grounding for development planning and for further research.

The CST Dakar has been using the opportunity of the technical assistance it has been providing to member states for census-taking from the early 1990s to promote an in-depth analysis of the wealth of information that is usually collected. As much as possible, data of the current census have been complemented by relevant data from other sources and from earlier censuses, in order to obtain a broader context and examine trends.

This initiative is grounded on the facts that:

- Most of the earlier census projects only stopped at the publication of the final results, followed by the publication of a long series of statistical tabulations which were hardly ever widely disseminated. Occasionally, some census projects managed to produce summary analytical reports or rather technical documents which could only be understood and used by the initiated.
- Since most users are not likely to be properly schooled in the art of interpretation of statistical tabulations, the interpretation of the published results have often varied widely and their use for development planning has thus been limited and largely compromised.
- The raw datasets from the censuses have always remained inaccessible and have been preserved as confidential information. Even if they were to be accessible, there would have been very few computers at the time with the capacity to host them for use for further analyses.
- Coupled with these problems of accessibility was the medium of storage of the data and related information on the censuses. Very few of the magnetic tapes or the disks and diskettes that succeeded each other as medium for data conservation have been able to survive the adverse tropical environmental conditions (heat, moisture, dust, etc) and the poor archiving techniques, in the absence of frequent use. At the moment, few African countries can boast of having full copies of all their past censuses. Most of them have had to spend huge resources to retrieve their data from developed countries.
- Even when some timid efforts were made to attempt some in-depth analyses of census data, this was done by the very limited available technically minded expertise in-country or abroad. No specific format of presentation of the results was available and the general tendency was to indulge in complex technical analyses whose interpretations were not accessible for public consumption. At the end, policy makers could not easily use such analyses for decision-making either.
- Ever since the early 1990s, significant improvements have been observed in terms of software and hardware for capture, processing, storage and analyses of census data

and there has been concomitant increase in the human resources in African countries capable of using these technologies more efficiently than before.

- The development of new technologies and improvements in human capacity, coupled with increasing needs for data for development planning have led to the incorporation of an increasing number of variables into census questionnaires thereby increasing their length and complexity. Concomitantly, the range of users of information generated from censuses has been increasing. So too have been expectations as to the type and level of desegregation of the analyses. More detailed indicators are being required in order to monitor and evaluate progress made by countries toward the attainment of national, regional and global development agenda – UNDAF, PRSPs, ICPD, MDGs, etc.

The Content of Conventional Ordinary Household Questionnaires

The number of topics that can be investigated and the level of detail that can be provided during in-depth analyses of census data will depend essentially on the number of topics that have been covered by each census. As indicated in the recent version of the United Nations' *Principles and Recommendations for Population and Housing Censuses, Revision 2*, the choice of census topics is guided mainly by national needs, time constraints, the suitability of the issues to be addressed and their comparability and by the resources available. It is important for census takers to consult closely with the principal stakeholders at an early stage in the preparations for a housing census in order to concentrate on collecting the data most urgently required and supplying them in their most useful formats.

The United Nations has recommended a number of core and optional topics that can feature in the census questionnaire but admits that, depending on specific national circumstances, some few more topics may be added. The response modalities for each of the variables usually vary widely from one country to another depending on the context and the goal pursued in including each of them. However, it is generally recommended that the recorded responses be sufficiently detailed to make for subsequent recoding into fewer categories for purposes of tabulations and analyses.

As can be read from the list of variables, African censuses often comply fully with the global recommendations for the type of information that needs to be collected during population and housing censuses. However, depending on their specific contexts, they often include a few more details in order to capture specific country situations. It is thus that post-conflict countries would seek to capture population movements during and/or after the conflict, type of physical incapacitation and causes and focus on survivorship of parents to capture orphanhood. They equally include specific response modalities which would capture household structures and better capture vulnerable subpopulations – fostered children, households headed by children, widows, elderly or handicapped persons. In order to capture disparities rural poverty during measurement of non-monetary income, some countries have included questions on possession of some agricultural goods and even animals. Others have opted for the inclusion of an entire agricultural questionnaire – Rwanda, Burkina Faso, etc.

In countries with such special populations as nomads, street children, homeless persons and particularly, residents in collective households (prisoners, refugees, soldiers in camps, etc), special but shorter versions of questionnaires are designed. However, these must include mainly variables that feature in the main household questionnaire in order to enhance their inclusion in the study of the total population within their respective locations of residence. .

List of Variables in most African Census Household Questionnaires

1 Demographic and Socio-cultural Variables

- Relationship to head of household
- Sex
- Age
- Religious affiliation
- Languages spoken
- Ethnic affiliation**

2. Other Characteristics

- Existence of a physical handicap
- Type of handicap
- Cause of handicap**

3. Migration

- Place of current residence
- Place of birth
- Duration of stay in current residence
- Place of previous residence (*X years ago*)

4. Survivorship of parents (*Usually for population <18 years*)

- Biological mother alive
- Biological father alive

5. Educational characteristics (*Population X years and above*)

- Literacy status
- Current school attendance
- Educational level attained
- Educational certificate obtained**
- Language(s) of literacy**

6. Economic activity (*Population x years and above*)

- Participation in productive activity (*within a short reference period*)
- Employment status
- Main occupation
- Branch of activity/Industry
- Sector of activity**
- Informal employment**
- Secondary employment**

7. Marital status (Population 10+ years)

8. Fertility (Women *X years and above*)

- Births in the last 12 months
- Deaths among births in the last 12 months
- Children ever born by sex
- Children surviving by sex

9. Mortality

- Deaths in household (*in last 12 months*)
- Name of deceased**
- Sex of deceased
- Age at death
- If woman 12-49 years, cause of death (*to identify maternal causes*)

10. Information on dwelling unit

- Type of housing unit
- Years since construction**
- Number of rooms
- Mode of tenure
- Material for walls of main structure
- Material for roof of main structure
- Material for floor of main structure
- Source of energy for lighting
- Type of fuel for cooking
- Type of kitchen**
- Main source of drinking water
- Means of waste disposal
- Type of toilet facility
- Type of bathing facility **
- Possession of telecommunication equipment (Radio, Telephone, Television)
- Possession of durable household appliances
- Possession of means of transportation
- Possession of agricultural tools **

** = Variables that are largely optional or less common in questionnaires

THEMES FOR IN-DEPTH ANALYSES

The choice of the themes for thematic analyses of census data depends largely on the variables that have been included in the census questionnaires and on the response modalities. These evidently are selected in conformity with the main objectives of the census. In choosing the themes, efforts must be made to make the most optimal use of all the information that will be gathered during the census, including details from the census mapping phase and from the post-enumeration survey. As much as possible, information from other external sources such as surveys, administrative data and past censuses should be incorporated for purposes of comparison, study of trends, explanation of observed patterns or as inputs for future scenarios.

In-depth analyses of census data in Africa have for some time now focused on the following main themes:

- 1) Population size, distribution and structure
- 2) Marital Status characteristics of the population
- 3) Socio-cultural characteristics of the population
- 4) Fertility and Nuptiality
- 5) Mortality levels and differentials
- 6) Migration
- 7) Household size and structure
- 8) Economic activity characteristics of the population
- 9) Educational characteristics of the population
- 10) Housing and living conditions
- 11) An analysis of non-monetary poverty
- 12) The Situation of Women
- 13) The situation of Children and Youth
- 14) The situation of Handicapped persons
- 15) The situation of Elderly Persons
- 16) Population Projections

Other Analyses and Publications may include

- 1) A Synthesis of the Analytical Reports
- 2) Regional monographs
- 3) The Demographic Atlas
- 4) The Census in Brief
- 5) Flyer on key indicators derived from the results of the analyses of the census

Interrelationships between the variables in the ordinary household questionnaires and the thematic analyses

The table hereunder demonstrates the main linkages between the various themes for in-depth analyses of census results and the variables that usually feature in ordinary household questionnaires. While some key variables are employed in the analyses of almost all the themes, some are vital mainly for the analyses of specific themes. In other words, there should be no redundancy in the sense that no variables should be included into the questionnaire if it shall not be employed during tabulations and data analyses. The usefulness of the optional question on “Name of the deceased” is immediately put into question here. Indeed, in some societies, this question may lead to higher proportions of non-response if it is a tradition not to mention names of dead persons or where such recall unleashes remorse.

As stressed in the *Principles and Recommendations for Population and Housing Censuses, Revision 2* no country should attempt to cover all the variables included in the list of population recommended topics. Rather, on the basis of the objectives pursued and the available time and resources, the most pertinent variables should be retained. Some of the variables may only serve as ‘filters’ for the identification of specific population categories needed for the analyses of particular themes. In the case of non-monetary poverty analyses, the main variable is usually created from responses to several housing-related variables and then used in analyses by cross-classifying it with other dependent variables.

Table 1: INTERRELATIONSHIPS BETWEEN VARIABLES AND THE THEMES OF ANALYSES

VARIABLES IN THE HOUSEHOLD QUESTIONNAIRES	Pop. Size, Distribution & Structure	Marital Status	Fertility	Mortality	Socio-cultural characteristics.	Migration	Households	Economic Activity	Educational characteristics	Housing	Situation of Women	Situation of handicapped persons	Situation of Children and Youth	Situation of Elderly persons	Population Projections	Analysis of Poverty
Relationship to Head of Household		X					X				X		X	X	X	X
Sex	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Age	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Religious affiliation					X				X		X	X	X	X		
Language(s) spoken					X	X					X	X	X	X		
Ethnic affiliation		X			X	X					X	X	X	X		
Existence of physical handicap?						X	X	X	X	X	X	X	X	X		
Type of handicap						X	X	X	X		X	X	X	X		
Cause of handicap											X	X	X	X		
Place of birth	X				X	X					X	X	X	X		
Place of current residence	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Duration of stay in current residence						X		X								
Place of previous residence						X		X				X	X	X	X	
Biological father alive				X				X	X				X			
Biological mother alive				X				X	X				X			
Literacy status			X	X	X	X	X	X	X	X	X	X	X	X		X
Current school attendance					X			X	X		X	X	X	X	X	
Educational level attained			X	X	X	X	X	X	X	X	X	X	X	X	X	X
Certificate obtained									X							
Language of literacy					X				X		X	X	X	X		
Participation in productive activity (X days)			X		X	X	X	X	X	X	X	X	X	X	X	X
Main occupation						X		X	X		X	X	X	X		
Branch of activity			X			X	X	X	X		X	X	X	X		X
Employment status			X			X	X	X	X	X	X	X	X	X		X
Sector of activity								X			X	X	X	X		
Informal employment								X	X		X	X	X	X		
Secondary employment								X	X		X	X	X	X		
Marital status		X	X			X	X	X		X	X	X	X	X		X
Children ever born by sex		X	X								X			X		X
Children surviving by sex			X	X							X			X		
Births in the last 12 months			X												X	X
Deaths among births in last 12 months			X	X											X	X
Deaths in household in last 12 months				X											X	
Name of the deceased																
Sex of deceased				X											X	
Age at death				X											X	
Maternal death?				X												

VARIABLES IN THE HOUSEHOLD QUESTIONNAIRES (Cont'd)	Pop. Size, Distribution & Structure	Marital Status	Fertility	Mortality	Socio-cultural characteristics.	Migration	Households	Economic Activity	Educational characteristics	Housing	Situation of Women	Situation of handicapped persons	Situation of Children and Youth	Situation of Elderly persons	Population Projections	Analysis of Poverty
Type of housing unit										X	X	X	X	X		X
Years since construction										X	X	X	X	X		X
Type of housing unit										X	X	X	X	X		X
Number of rooms										X	X	X	X	X		X
Mode of tenure										X	X	X	X	X		X
Material for walls										X	X	X	X	X		X
Material for main roof										X	X	X	X	X		X
Material for main floor										X	X	X	X	X		X
Source of energy for lighting										X	X	X	X	X		X
Type of fuel for cooking										X	X	X	X	X		X
Type of kitchen										X	X	X	X	X		X
Main source of water										X	X	X	X	X		X
Means of waste disposal										X	X	X	X	X		X
Type of toilet facility										X	X	X	X	X		X
Type of bathing facility										X	X	X	X	X		X
Possession of means of telecommunication										X	X	X	X	X		X
Possession of durable household appliances										X	X	X	X	X		X
Possession of means of transportation										X	X	X	X	X		X
Possession of agricultural tools										X	X	X	X	X		X

The traditional approach to the publication of the much anticipated census results (provisional and final) has been through release of simple and cross-classified tabulations. In this direction, the recent *Principles and Recommendations for Population and Housing Censuses* has published a recommended list of recommended basic and additional tabulations that should represent basic census outputs and enhance international comparability of results. However, these are not easy for non-expert users in the general public to access and understand while some stakeholders may require that these be accompanied by detailed commentary in order to grasp the implications of observed patterns.

The tradition of publishing the principal results of population and housing censuses as soon as possible after the enumeration should be maintained and encouraged, otherwise their usefulness and the extent of their interest to the public will be diminished. However, other ways to disseminate census data in a more accessible format and thus increase the utilization of the information collected should be used more often. Over time, the range of users of census data has been increasing, so too has been the range of products and services they are demanding from the census organization. Fortunately, with rapid development in technology, most of these demands can be met within reasonable time if proper planning is done. It is recommended that census organizers anticipate such demands by publishing in the project and/or advocacy documents the range of products and services that will be available and when to expect them.

THE PROCESS OF IN-DEPTH DATA ANALYSES ITSELF

The inter-relationship between the themes of analyses

For in-depth analyses of census results to be successful, they must have been conceived at the same time as the census project itself in order to allow time and allocate resources for the various stages of their preparation, implementation and dissemination. While some of these analyses may need no more than simple cross-tabulations with detailed interpretations, some of them will need to incorporate a high level of very sound analysis undertaken by staff who have a solid foundation in analytical techniques as well as in the domain being analyzed. The Technical expertise from UNFPA CSTs has very often been involved in these processes but the main purpose has been to strengthen national capacity in the domain of data analyses and report writing. In some cases, it the CSTs have resorted to conducting the supervision of these analyses in collaboration with national and regional academic and research institutions or other specialists.

Table 2 below demonstrates the linkages that are likely to exist between the various themes that are usually covered during the in-depth analyses of census data in Africa. This matrix underscores the need for an analysis strategy which provides for regular meetings among the analysts to ensure harmonized approaches to data analyses, computation of key indicators and interpretation of results.

Table 2: Inter-dependencies between themes for In-depth Analyses

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	Pop. Size, Distribution & Structure	Marital Status	Fertility	Mortality	Socio-cultural characteristics.	Migration	Households	Economic Activity	Educational characteristics	Housing	Situation of Women	Situation of Handicapped persons	Situation of Children and Youth	Situation of Elderly persons	Population Projections	Analysis of Poverty
Pop. Size, Distribution & Structure		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Marital Status	X		X			X	X	X		X	X	X	X	X		
Fertility	X	X		X		X			X		X		X	X	X	X
Mortality	X		X								X		X	X	X	
Socio-cultural characteristics.	X					X		X	X		X	X	X	X		
Migration	X	X	X		X		X	X	X	X	X	X	X	X	X	
Households	X	X				X		X	X	X	X	X	X	X	X	X
Economic Activity	X	X			X	X	X		X	X	X	X	X	X	X	X
Educational characteristics	X		X		X	X	X	X		X	X	X	X	X	X	X
Housing.	X	X				X	X	X	X		X	X	X	X	X	X
Situation of Women	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X
Situation of Handicapped persons	X	X			X	X	X	X	X	X	X		X	X	X	X
Situation of Children and Youth	X	X	X	X	X	X	X	X	X	X	X	X			X	X
Situation of Elderly persons	X	X	X	X	X	X	X	X	X	X	X	X			X	X
Population Projections	X		X	X		X	X	X	X	X	X		X	X		
Analysis of Poverty	X		X				X	X	X	X	X	X	X	X		

The chronogramme of activities for census data analyses

The overall objective being pursued for the African censuses of the 200 and 2010 rounds has been to ensure that the in-depth analyses reports are available for dissemination some 12 months after the publication of the final census results. As a result of the generally weak human resource capacity in most countries and in view of the need to establish some level of team cohesion among the analysts, the strategy adopted has often been to launch the preparatory activities almost immediately after the end of field enumeration as shown on table 3 below:

Table 3: Chronogramme of activities for in-depth analyses

Activity	Period
<ul style="list-style-type: none"> - Launching of appeal for candidatures to handle each of the themes - Appeal for partnership with national and foreign universities and research institutions for mentoring of the analyses by theme 	2-3 months after enumeration
<ul style="list-style-type: none"> - Selection of eligible candidates for each theme, constitution of teams if necessary and designation of supervisors - Preparation of detailed TORs for each theme 	4 months after enumeration
<ul style="list-style-type: none"> - Preparation of context for each theme accompanied by a detailed plan of analysis chapter by chapter with methods and references 	5-6 months after enumeration
<ul style="list-style-type: none"> - Workshop for the presentation of the context, plan of analyses, methods of analyses and tabulation plans with table formats and levels of disaggregation - Review and submission of revised outlines and tabulation plans 	7 th month after enumeration
<ul style="list-style-type: none"> - Strengthening of the capacity of individual analysts in the domains for which specific weaknesses have been identified - Poverty mapping, mortality analyses, fertility analyses, population projections, labour force analyses, etc. 	9-12 months after enumeration
<ul style="list-style-type: none"> - Publication of final results of the census followed by the release of the statistical tabulations 	One year after enumeration
<ul style="list-style-type: none"> - Printing of the thematic tabulations 	Next month after publication of final results
<ul style="list-style-type: none"> - Workshop for all analysts for harmonization of approaches to data analyses, particularly: <ul style="list-style-type: none"> - use of various software for tabulations; secondary data analyses; presentation of tables, graphs and maps, etc - format of numbering and presentation of headings of tables, graphs and maps; - approaches to computation of rates, ratios, proportions and other key indicators, - interpretation of results, - format of presentation of chapters, sections and sub-sections, etc - Hands-on computation of indicators for some of the chapters and practical lessons on interpretations - Payment of first allocation of honorariums to analysts - Launching of outline for the Demographic Atlas 	2 nd month after publication of final results
<ul style="list-style-type: none"> - Write-up of the analyses chapters of the reports by analysts 	3rd-5th months after publication of final results

Activity	Period
<ul style="list-style-type: none"> - Workshop for presentation of the preliminary reports by analysts - Presentation of some thematic maps - Presentation of the draft version of the Demographic Atlas - Commentary on reports by resource-persons 	6 th month after publication of final results
<ul style="list-style-type: none"> - Revision and finalization of reports by analysts 	7-8 th month after publication of final results
<ul style="list-style-type: none"> - Workshop for the presentation of the final reports and the ultimate draft of the Demographic Atlas - Preparation of draft of brochure on key indicators from the thematic analyses - Presentation of the outline for the synthesis report - Presentation of the outline for the regional monographs 	9 th month after publication of final results
<ul style="list-style-type: none"> - Harmonization of the reports by the census agency - Write-up of the synthesis of thematic reports - Write-up of the regional monographs - Finalization of the Demographic Atlas (commentaries) 	10-11 th months after publication of final results
<ul style="list-style-type: none"> - Printing of the Synthesis report and the brochures - Preparations for the Final dissemination seminar 	1 year after the publication of final results
<ul style="list-style-type: none"> - National Seminar for the presentation of the results of the in-depth analyses (Distribution of brochures and the synthesis report) - Identifications of themes for further research and analyses - Display of the various products of the Census - Finalization of the regional monographs 	13-14 th months after publication of final results
<ul style="list-style-type: none"> - Printing and distribution of the other thematic reports - Printing of the regional monographs - Printing and distribution of the Demographic Atlas - Preparations for the regional seminars 	14-15 th months after publication of final results
<ul style="list-style-type: none"> - Holding of the regional seminars - Distribution of the regional monographs and dissemination of other reports 	15-16 th months after publication of final results
<ul style="list-style-type: none"> - Write-up and production of the final report on the execution of the census project 	16-17 th months after publication of final results
<ul style="list-style-type: none"> - End of project 	18 months after publication of final results

Essentially, the strategy entails that the census agency will be playing the leading role with the assistance of a CTA (where applicable) and with CST backstopping. Based on a concept note prepared during the planning stages, criteria should then be developed for selecting national consultants who will participate in the analysis of each of the themes. Depending on the availability of expertise in-country, the agency may opt for use of one or more consultants per theme. For purposes of appropriation and internal capacity strengthening, it is recommended that as many staff members of the census agency be retained to analyze some of the key themes of the census. Proper planning for in-depth thematic analyses will guarantee that all the various activities have been budgeted for in the project document.

The selection of the candidates for thematic analyses could be done immediately after major field activities (including the post-enumeration survey) have been completed - some 3-4 months after enumeration. The census agency will enter into contractual agreement with

each of the consultants based on clear terms of reference which should specify the time-line for key activities and expected outputs along with the honorarium and periods of disbursement. In essence, consultants may not necessarily be considered full-time employees of the project but must make themselves available for key activities and undertake to deliver the requisite outputs at specific periods of the exercise.

Upon selection, the consultants will be required to prepare, within 3 months, a detailed paper on the context of the evolution and situational analysis of the theme he/she will be analyzing along with a detailed outline of the expected report presenting the main methods to be employed, the key references and a tabulation plan by chapter. On the 7th month after enumeration a first workshop should be organized during which each consultant will present his/her proposal to the management and technical team of the census agency and to all the other consultants for discussion. The comments received will then enable the consultants to prepare final versions of the thematic proposals for submission.

The proposal workshop is ideal for identifying some weaknesses in the competencies of the individual consultants which need to be redressed either through capacity strengthening courses, associating them with other consultants with complementary skills or assigning them to more experienced supervisors. The period between the submission of final proposals and the publication of the final results should be used for organizing focused training for consultants and for identification of alternative sources of backstopping.

Immediately after the release of the final census results and the publication of the basic statistical tabulations of these results, attention should be given to the production of the specific thematic tabulations as requested by the analysts. Each of them should be provided with hard and soft copies of the requested tabulations within a month of the publication of the final results. They may then use these, along with the basic published tabulations to develop initial ideas about the broad orientations of their reports.

During the second month after the publication of results, a second workshop should be organized for the analysts, technical staff of the census agency and expertise from technical institutions and the CSTs to initiate analysts in the use of the census database for production of tabulations and for other analyses using such conventional software as IMPS, CSPro, SPSS, etc as well as other software for data analyses, indicator development and graphical representation. This would be an ideal time for laying the groundwork for the harmonization of approaches for the computation of some key indicators, formats for presentation of tabulations, interpretation of results and the pattern of presentation of results from the analyses – in chapters, sections, sub-sections, etc. The minimum duration of such a workshop should be 2 weeks, preferably in a secluded location, during which all analysts should be present and actively participate in the sessions. The opportunity of the sessions should then be used to enhance the capacity of the analysts to autonomously produce most of the additional tabulations they may need and to proceed to compute some of the main indicators for their various chapters and to share their findings with other analysts working on related themes. For certain, there will still be other tabulations and creation of new variables for which analysts will still require the assistance of the computer analysts but somehow, the pressure on them will be much reduced after the workshop. From the list of computed indicators for each of the themes, the census agency we start developing an idea as to which of them could feature in the demographic atlas to be developed subsequently.

Once the analysts have acquired the requisite competencies to work almost autonomously on their individual themes and have received the main guidelines for report preparation, they should be given some 2-3 months during which they will be expected to do the analyses and

prepare a draft write-up for the main chapters for their themes. During this period the technical staff of the census agency along with the thematic supervisors and the CSTs should maintain a close monitoring of the progress achieved by each of the analysts. The best practices and pertinent results should be regularly shared among the group and efforts should be made to salvage those analysts encountering specific difficulties with their work.

A third analysis workshop should be organized some 6 months after the publication of the final census results for the presentation and review of the preliminary findings and write-ups on all the themes. Since some concrete results are likely to be presented for which clear interpretations will be developed, the census agency should associate some resource persons who are knowledgeable in the specific domains under investigation to assist in providing a critical evaluation of the work done and proffering various interpretations for the results obtained. The staff of the cartography unit, which should have been involved from the moment various indicators were being developed, should intervene more actively during this workshop to assist analysts in the identification of pertinent indicators and other results which can be presented on thematic maps and also feature in the demographic atlas. A display of a couple of thematic maps would help analysts to decide on which of their results to present using this format. At the end of this workshop, analysts should be given some 1-2 months within which to incorporate all the comments and to prepare the final drafts of their reports.

The final analysis workshop should be organized within 8-9 months of the publication of the final census results during which analysts will present the final drafts of their reports to an assembly composed of the management and technical staff of the census agency, theme supervisors and other resource persons including CST advisers. At this stage, each theme should be evaluated both in terms of the exhaustiveness and pertinence of its results and interpretations provided and of compliance with the format of presentation as recommended during the second workshop. Soon after this workshop, the analysts should be able to make the final revisions and submit their final reports to the census agency for harmonization and printing. The most pertinent indicators from the individual reports may then be used to finalize the maps for the demographic atlas and to prepare the commentaries to accompany each map. In the same manner, some the main results and indicators could be synthesized into a brochure which summarizes the findings from the analyses.

Since a complete picture of the outcome of the in-depth analyses shall have been perceived even before this final workshop, the census agency should be in a position to propose an outline of the synthesis report for discussion during this workshop. Decision can then be taken on the approach to be adopted in preparing such a report. Once the outline has been agreed upon, analysts could be requested to make a synthesis from their reports to constitute chapters or sub-sections of the synthesis report. Another option would be to assign some of the analysts to prepare such a report in order to ensure synergies between its components. In effect, the synthesis report, which summarizes the results of all the in-depth analyses, is a valuable census product which is likely to be more accessible to the general public and even to key stakeholders than 16 bulky thematic reports. This report along with the brochure can be printed more rapidly and in several copies for use during the official presentation of the results of the thematic analyses which could be organized about 1 year after the publication of the final results of the census. The other thematic reports and products may be finalized, printed and disseminated much later.

Once the thematic reports have been submitted, the census agency may enlist the services of the analysts to prepare the regional monographs which, in essence will be presenting at the level of the major civil administrative units, the same type of information as that contained in the national synthesis report. In this direction, the census agency should submit a generic

outline for discussion and validation and arrange for the main tabulations to be produced for each of the administrative units. Except for some of the administrative units with peculiarities such as the capital cities, the content of the regional monographs should be identical – with identical information in the tables, maps and graphics for purposes of comparison. It is recommended that regional monographs be available at the time the census agency is organizing the presentation of the final results of census analyses in the regions. It would then be possible to present not only the overall national situation but the specific case of each of the regions and to compare it with the others.

The printing and dissemination of the various census products, particularly, the results from the in-depth analyses and other derived products, must be diligently planned and implemented in order to ensure that the primary users are served. It would be ideal for the census agency to establish a service to meet not only coordinate the dissemination of these products but to receive and respond to other specialized requests, on a cost reimbursement basis (if necessary).

The final months of the census project should be devoted to the preparation and printing of a detailed report on the execution of the project. To facilitate this work, it is highly recommended that census agencies envisage, from the very beginning of the project, to be preparing detailed reports of each phase of census execution including problems encountered and their solutions. This will be a guarantee that some vital details on earlier phases will not be forgotten. When such reports are carefully stored in a specific directory, the preparation of the detailed report on project execution is greatly enhanced. It becomes a matter of collating reports from successive phases and harmonizing the presentation and flow of information. In view of the long lapse of time between censuses especially in most African countries who hardly ever respect the prescribed 10-year intervals for census taking and the likelihood of changes in the highly qualified personnel and in technology, the detailed report on census project execution is an essential product for the planning of future censuses.

Some indicators of the MDGs that can be generated after in-depth analyses of census data

Goal 1: *Eradicate extreme poverty and hunger*

- Non-income poverty estimation (in quintiles) – available down to the smallest administrative unit
- Population employed in the agricultural sector
- Household size by sector of employment of household head

Goal 2: *Achieve universal primary education*

- Gross and net enrolment rates for primary, secondary & tertiary levels of education
- Literacy and illiteracy levels
- Level of education attained – giving an idea of transition between various levels

Goal 3: *Promote gender equality and empower women*

- Ratio of Boys to girls in the primary, secondary & tertiary levels of education
- Male/Female illiteracy rates
- Proportion of women employed in the non-agricultural sector by type of occupation and status of employment
- All tabulations and thematic analyses are disaggregated by sex
- Proportion of females among the population of voting age

Goal 4: *Reduce child mortality*

- Estimates of Under-5 Mortality
- Estimates of adult mortality, life expectancy at birth

Goal 5: *Improve maternal health*

- Estimates of maternal mortality

Goal 6: *Combat HIV/AIDS, malaria and other diseases*

- Number of orphaned children
- Population in high-risk malaria areas (as denominator)

Goal 7: *Ensure environmental sustainability*

- Proportion of household using solid fuels
- Proportion of urban/rural households with access to improved water sources
- Proportion of urban/rural households with good bathing and toilet facilities, waste disposal facilities, high room density and good building materials
- Proportion of urban households and population resident in slum areas
- Proportion of urban/rural households with access to secure tenure of dwellings

Goal 8: *Develop a global partnership for development*

- Employment/unemployment rates by sex
- Proportion of urban/rural households with access to modern means of information and communication technology.

It is however worthy to note that census data and the population projections that are generated using such data, provide the much needed denominator for the computation of most of the other indicators for which the numerator is obtained from alternative sources. This goes to underscore the fact that the population census is an essential component of the national statistical system and as such, is a vital source of information for national development planning.

**PROPOSED OUTLINES FOR THE MAIN THEMES AND FOR
OTHER CENSUS PRODUCTS**

POPULATION SIZE, DISTRIBUTION AND STRUCTURE

Variables concerned : - Sex, age, place of residence

Other sources : Past censuses, PRSP, DHS, MICS, Cartographic information of area, Administrative decisions on boundaries, etc)

The context :

- An overview of historical patterns of settlement and land occupation in the country. History of the evolution of population of the country.
- Presentation of the present administrative set-up and its past evolution
- An overview of the known components of the growth of the population in the country; the impact of urbanization and other factors on the redistribution of the population over the years
- Specific behavioural factors within the population that are likely to influence population growth patterns and its structure
- Official initiatives (policies and programmes) that have consciously or indirectly affected the growth and structure of the population in the country

Analyses

- Size and evolution of the population of the country (de facto and de jure populations by sex; intercensal growth rates, Resident population by type of households in which it was counted – ordinary, collective, homeless persons, nomads, etc)
- An analysis of the spatial distribution:
 - o Focus on the resident population by various administrative units (proportional distribution and evolution since last census).
 - o An analysis of densities and their evolution
 - o An analysis of the spatial concentration/dispersion of the population over the national territory (Lorenz curve, Gini concentration ratios).
 - o An analysis of the Urban/Rural distribution of the population
 - o An analysis of the size and spatial location of urban areas.
- An analysis of the age and sex structure of the resident population
 - o Analysis of the age and sex structure for the country and by urban/rural area.
 - o An analysis of the sex ratios
 - o A critical evaluation of the data on age using conventional indices (Whipple's, Myers', UN Joint score) and recommendations as to need for any adjustments.
 - o An analysis of the age and sex structure of the populations in the various regions.
 - o An examination of the mean and median ages of the total population and the other sub-populations.
- An analysis of the population structure by some functional age categories (which are not mutually exclusive):
 - o Age groups eligible for various vaccination campaigns
 - o Population of pre-school age
 - o Population of school-going age at nursery, primary, secondary and tertiary levels
 - o Population of working age and dependency ratios
 - o Population of voting age, etcFor each sub-group, present observed variations by place of residence and the evolution over time.

Conclusions and recommendations

SOCIO-CULTURAL CHARACTERISTICS OF THE POPULATION

Variables concerned : - Sex, age, place of residence, religious affiliation, ethnic affiliation, languages spoken/written, place of birth, place of previous residence, duration of residence, literacy, educational attainment

Other sources : Past censuses, reports from special surveys and studies, etc)

The context :

- An overview of historical patterns of settlement and land occupation in the country. History of the influence of other external colonial and religious influences in the country.
- A summary presentation of the main ethnic groups, languages and religious groups in the country and their evolution over time
- An overview of official policies and programmes that have enhanced or restricted the expansion of various ethnic, religious or language groups in the country
- The contribution of socio-cultural factors to the development and social cohesion in the country. Their role as constraining factors.
- Local and international organizations that enhance the development of local languages or cater for the interests of various religious or ethnic groups

Analyses

- An analysis of the characteristics of the population according to ethnic affiliation in the country:
 - o Size and spatial distribution of the population by ethnic affiliation; evolution.
 - o Age and sex structure of the population by ethnic affiliation
 - o Correlation between specific ethnic groups and some characteristics of the population (language groups, literacy and school attendance, economic activity, etc
- An analysis of the characteristics of the population according to languages spoken (mother tongue and other languages)
 - o Size and spatial distribution of the population by language spoken ; evolution.
 - o Age and sex structure of the population by language spoken (mother tongue and other languages)
 - o Correlation between languages spoken (mother tongue and other languages) and some characteristics of the population (ethnic groups, language groups, literacy and school attendance, economic activity, migration, duration of residence, urban/rural residence, etc
- An analysis of the characteristics of the population according to religious affiliation:
 - o Size and spatial distribution of the population by religious affiliation; evolution.
 - o Age and sex structure of the population by religious affiliation
 - o Correlation between specific religious denominations and some characteristics of the population (ethnic groups, language groups, literacy and school attendance, economic activity, migration, etc

Conclusions and recommendations

MARITAL STATUS CHARACTERISTICS OF THE POPULATION

Variables concerned : - Relationship to household head, sex, age, marital status, place of residence, ethnic affiliation, religious affiliation, fertility

Other sources : Past censuses, PRSP, legal texts on family formation, etc)

The context :

- Presentation of the traditional organisational set-up in the country highlighting the main forms of traditional marriage, the rites involved and their significance
- An examination of factors that lead to entry into marriage by sex and age, the causes of marital dissolution and the fate of the spouses and their offspring.
- Recent developments in the domain of marriage which may have affected the observed distribution of the population among various marital status categories. These include the introduction of civil status registration, increasing cohabitation and common law unions, legislation on divorce, widow inheritance, remarriage, etc.
- Policies and programmes in place which may implicitly or explicitly encourage or constrain preference for one marital status to another in the country
- National and international organizations intervening in the domain of family protection and assistance in case of dissolution of marriage, etc

Analyses

- An analysis of the spatial distribution of the population aged X years and above by marital status and by sex.
- An analysis of the age distribution of the population by sex according to the various categories of marital status highlighting sex disparities in the rhythm of access to certain categories with age. Examination at mean/median ages for each status by sex
- An analysis of sex/age variations in marital status by region of residence in the country. Examination of mean/median ages for each status by sex and by region and providing explanations for observed disparities.
- Summary of the computations of the singulate mean age at first marriage (see Theme on Fertility and Nuptiality)

Conclusions and recommendations

ANALYSIS OF FERTILITY AND NUPTIALITY

Variables concerned: Age, sex, children ever born, Children dead, Place of current residence, Literacy status, educational attainment, economic activity status;

Other sources : Past census reports, DHS & MICS reports

Context:

Social factors:- The context within which fertility is expressed in the country. The value of children within a family and cultural norms underlying childbirth and parenthood. The role of family. Age at entry into marriage and start of childbearing. Observed evolution in the context of childbearing over the years. The possible linkage between high infant and child mortality and high fertility, Fertility and marriage, etc

Economic context:- The impact of living conditions and of the high levels of poverty on fertility performance in the country. Household economic activity and production levels and their impact on the desire for more or fewer children.

The health delivery system: The role of the health system in providing for safe sexual relations, safe gestation, delivery and post-partum care of children in the country and its impact on the rates of unwanted pregnancies, abortion and emergency obstetric care, assisted delivery, etc. Prevalence of contraception and its consequences.

Policies and programmes designed to explicitly or implicitly influence fertility behaviour in the country and their observed impacts till date.

The existence and role of various national and international organizations that focus on influencing fertility trends and reproductive health in the country.

Analyses:

- Definition of concepts and evaluation of data on Fertility. Presentation of any methods of adjustment employed with the outcomes.
- Analyses of levels and trends of cumulative fertility by place of residence in the country (Children ever born, children surviving)
- Analyses of levels and trends of recent fertility by place of residence in the country (ASFR, TFR)
- Analyses of differential in cumulative fertility levels
- Analyses of differential in recent fertility levels
- Levels and patterns of high-risk childbearing in the country
- An summary presentation of marital status of the population demonstrating the linkages between marriage and childbearing
- An Analysis of patterns of entry into marriage and the determination of the singulate mean age at first marriage for various sub-populations

Conclusions and recommendations:

ANALYSIS OF MORATLTY LEVELS AND DIFFERENTIALS

Variables concerned: Age, sex, deaths in last 12 months, maternal deaths, children dead/children ever born per woman, place of current residence, literacy status, educational attainment, economic activity status, survivorship of parents

Other sources : Past census reports, Specific survey reports, DHS reports

Context:

Environmental factors:- Aspects of the climate and the physical environment in the country that are likely to expose residents to risks of illness and death. Environmental conditions that enhance the proliferation of various diseases and vectors in some parts of the country.

Economic context:- The impact of living conditions and of the high levels of poverty on access to modern health facilities. The cost of drugs and of modern medical care as a whole. Household production levels and the impact of frequent food shortages and constraints to access to adequate and balanced nutrition on the overall health of the population

The health delivery system: Present an idea of the health map of the country with some key indicators - population per doctor, population/nurse, Population/hospital, population/health center, Popuation/hospital bed, etc. Make an overview of alternative health care options and their effectiveness. The impact of AIDS and other major epidemics in the country.

Socio-cultural factors: Some aspects traditional practices that are harmful to individual health, gender disparities and their impact on health, early marriage and childbearing, taboos and other rites that can lead to poor health and maternal morbidity and mortality

Policies and programmes designed provide protection and/or treatment of the population. Efforts at environmental protection and at fighting against known vectors.

Analyses:

- Definition of concepts and evaluation of data on mortality (highlighting its limitations). Presentation of any methods of adjustment employed with their outcomes.
- Analyses of infant and child mortality in the country by place of residence
- Infant and child mortality differentials by some key characteristics of their mothers,
- Analysis of adult mortality.
- Differentials of adult mortality
- Life table computations for males, females and for both sexes
- Analyses of maternal mortality in the country and examination of some differentials

Conclusions and recommendations:

HOUSEHOLD SIZE AND STRUCTURE

Variables concerned : - Relationship to household head, Sex, age, marital status, place of residence, literacy, educational level attained, economic activity, housing characteristics

Other sources : Past censuses, PRSP, Reports from specific surveys on households/family, etc)

The context :

- Presentation of the traditional organizational set-up in the country highlighting the conditions leading to the creation of households and to access to the status of household head within the community
- The structure of the traditional household in the country –size, composition, relationships, etc
- The changing pattern of households with modernization (especially urbanization) – new trends of households and new categories of household heads
- The impact of economic and humanitarian crisis situations on dissolution, creation and reconstitution of households in the country
- Policies and programmes in place that tend to influence the creation and/or splitting of households – Estate developments, laws on access to landed property, prices of building materials, legal age at marriage, slum development, access to loans, employment, migration, etc
- National and international organizations intervening in the domain of family protection and assistance for access to shelter, employment, resettlement, etc

Analyses

- Number and spatial distribution of households by type in the country. The evolution in the number and category of households over the past censuses
- Average household sizes according place of residence and to some main characteristic of ordinary household heads; evolution
- Household headship rates by age and sex and by place of residence, evolution
- The structure/composition of ordinary households by place of residence and some main characteristics of household heads

Conclusions and recommendations

ECONOMIC ACTIVITY CHARACTERISTICS OF THE POPULATION

Variables concerned : - Sex, age, place of residence, economic activity status, employment status, secondary employment, sector of activity, informal sector employment, literacy, current school attendance, educational level attained, relationship to head of household.

Other sources : Past censuses, PRSP, CCA report, various economic sector reports, etc)

The context :

- An overview of aspects of the national physical and cultural environment that have favoured the involvement of the population in specific types of economic activity and by region.
- The participation of various members of the household and the community in the production of goods and services by age group and by sex.
- Evolution in participation in economic activity participation over the years with modernization (an especially, urbanization) by sex and by age group
- An analysis of the major kinds of economic activity by sector showing the contribution of each of the sectors to the employment and to the national economy.
- An analysis of policies and programmes in place that have and are contributing to the development of the economic sector, creation of jobs and thus increasing the rate of economic participation of the population.
- A presentation of the role of national and international organizations to the dynamics observed within economic sector in the country.

Analyses

- A critical analysis of the variables retained in the census questionnaire with regard to the limitations they pose for an exhaustive analysis of the participation of the population of the country in the production of goods and services. Was the X-day reference period enough to capture participation in economic activity in all parts of the country?
- An analysis of the observed levels of economic participation (active/inactive population) in the country bringing out the proportional distribution of the major components of each category. This analysis should consistently highlight observed disparities according to urban/rural place of residence and by administrative unit.
- An analysis of the economically inactive population in order to highlight the sex, age and regional specificities of each of the components. The characteristics of the sub-populations by component could then be examined to highlight specific interrelationships with regard to interrelationships between them and attributes such as schooling, literacy, educational attainment, marital status, etc which may explain their non-participation in the production of goods and services
- An analysis of the economically active population in order to highlight the sex, age and regional specificities of each of the components (employed, unemployed, first job-seekers). The characteristics of the sub-populations by these components could then be examined to highlight specific interrelationships with regard to interrelationships with such other attributes as literacy, educational attainment, migratory status, etc. This analysis could be carried further to focus on the various sectors of economic activity and highlight areas where secondary employment is prevalent.
- An analysis of the economically active and employed or unemployed population according to their present or past employment status (by sector if possible). Highlight of observed disparities between urban and rural areas and across the regions

Conclusions and recommendations

EDUCATIONAL CHARACTERISTICS OF THE POPULATION

Variables concerned : - Sex, age, place of residence, literacy, current school attendance, educational level attained, certificate obtained, language(s) of literacy, economic activity

Other sources : Past censuses, PRSP, CCA Report, various education sector reports, etc

The context :

- An overview of historical patterns of the introduction and functioning of the modern (and traditional, if any) systems of education in the country
- An inventory of the various forms of education (formal/informal) prevalent in the country;
- A presentation of the present educational map of the country – number and location of schools by level, estimates of ratios of the eligible population to the facilities and the teaching staff; the evolution of the budgetary allocations for the education sector over the years.
- An overview of policies and programmes focusing on the educational sector in the country and their impact on literacy levels and human capacity development
- A presentation of the role of national and international organizations in the developments within the educational sector in the country.

Analyses

- An analysis of the observed levels of literacy in the country bringing out the differentials by sex and by age and the disparities according to urban/rural place of residence and by administrative unit.
- An analysis for the eligible population of levels of current school attendance for each level of education (nursery, primary, secondary, tertiary, informal) highlighting and explaining observed sex/age differentials and variations across administrative units and urban/rural place of residence. An examination of the gross and net enrolment rates, transition rates across cycles, children not in school, etc; a presentation of the trends over the years.
- An analysis of the observed levels of educational attainment by level of education (nursery, primary, secondary, tertiary) highlighting and explaining observed sex/age differentials and variations across administrative units and urban/rural place of residence. A presentation of the trends over the years. An Analysis of educational attainment by certificates obtained (where possible).
- An examination of the observed interrelationships between literacy levels and levels of educational attainment and other characteristics of the population such as languages spoken, language(s) of literacy, economic activity, fertility levels, mortality levels, migration, household size and composition, poverty levels, etc.

Conclusions and recommendations

ANALYSIS OF HOUSING AND LIVING CONDITIONS

- **Variables concerned :** - Place of residence, Relationship to head of household, age, sex, marital status, educational attainment, economic activity (of household head), type of housing unit, mode of tenure, number of rooms, material for walls, material for roof, type of bathing facility, material for floor, type of fuel for cooking, type of kitchen, main source of drinking water, means of waste disposal, type of toilet facility, source of energy for lighting, possession of telecommunication equipment (Radio, Telephone, Television), possession of agricultural tools, possession of valuable household goods, possession of means of transportation.

Other sources : Past censuses, PRSP, DHS & MICS household reports, main sectoral reports dealing with housing and social services to that sector, etc)

The context :

- An overview of environmental, physical and social organisational factors that determine settlement patterns and the type of materials for the construction of dwelling units in the country. Some of these may also determine access to certain basic household facilities.
- A review of factors that traditionally guided the decision to locate a homestead in the country and how these have changed over time.
- The most common materials for construction and how these vary across regions
- Individual attributes that are likely to determine the need to create a household and a separate dwelling and to determine the facilities available in them.
- Specific policies and programmes that have contributed and/or are contributing to the improvement in the stock and quality of housing in the country and to increasing access to certain amenities – loan schemes, mortgage, housing schemes, etc.
- A presentation of the role of national and international organizations in contributing to the improvements in the housing sector in the country.

Analyses

- Volume and regional distribution of dwelling units in the country and their evolution over the past censuses
- An analysis of the distribution of housing units according to the main materials used for construction of the walls, roof and floors, number of rooms, type of kitchen and mode of tenure. This should highlight the disparities by place of residence and by certain characteristics of the head of the household. It is possible to also examine the proportion of the resident population that is living in housing units that have the attributes being examined here
- An analysis of the distribution of housing units according to the facilities available to them – source of water, bathing facilities, type of kitchen, toilet facilities, energy for lighting and cooking, mode of waste disposal and possession of communication equipment, transportation facilities, agricultural tools and other valuable equipment. This should highlight the disparities by place of residence and by certain characteristics of the head of the household. It is possible to also examine the proportion of the resident population that is living in housing units that have the attributes being examined here

Conclusions and recommendations

ANALYSIS OF NON-MONETARY POVERTY

Variables concerned : - Place of residence, type of housing unit, number of rooms, mode of tenure, material for walls, material for roof, type of bathing facility, material for floor, type of fuel for cooking, type of kitchen, main source of drinking water, means of waste disposal, type of toilet facility, source of energy for lighting, possession of telecommunication equipment (Radio, Telephone, Television), possession of agricultural tools, possession of valuable household goods, possession of means of transportation

Other sources: Past censuses, PRSP, DHS & MICS reports which employed analyses by poverty quintiles, Living Standards Measurement Surveys, QUIBB and CWIQ survey results and other poverty analyses, etc

Methodology:-

- An overview of various approaches that have so far been used for the analyses of poverty either at household or at individual level using survey and/or census data in developing countries.
- Detailed description of the methods used to develop the poverty indicator for each household and the range for the entire country as well as the procedure for quintile development and other related analyses that follow.

Analyses

- Presentation of the results – distribution of households and the population in quintiles by urban/rural residence and by administrative units; commentary
- Analyses of the association between some characteristics of household heads and the poverty grading of households by sex of household head and by urban/rural residence and administrative unit; commentary;
- Analyses of the association between the poverty grading of households and some characteristics of household members (by age and by sex) – schooling rates, literacy, participation in economic activity, fertility, household size, etc
- Desegregation of the poverty index to focus on the quality of dwelling units, quality of water available in the dwelling units and quality of the sources of energy for lighting and for cooking by urban/rural residence and by administrative units; commentary.

Conclusions and recommendations

THE SITUATION OF WOMEN

Variables concerned : - Sex, age, relationship to household head, place of residence, religious affiliation, languages spoken, literacy, school attendance, educational level attained, economic activity, household and housing characteristics, poverty levels

The essence here is to highlight some major disparities in the characteristics and the living conditions of women as compared to men. These can be compared to situations that obtain elsewhere.

Other source : Past census reports, MICS , DHS, , PRSP, Gender reports, CCA reports, etc)

The context :

- Presentation of the traditional organizational set-up in the country highlighting the role played by women in the domains of production and reproduction
- The role of the woman in decision-making, her rights and responsibilities, traditional taboos and rites that may be a burden and have harmful impacts on her person and status;
- Presentation of efforts made so far by authorities to improve on the situation of women in the country and their limitations;
- Highlight some legislative instruments in place to ensure equal opportunities for men and women to have access to property, inheritance, certain professions, loans, etc
- Efforts being made by women in the country to contribute to the production of goods and services and major constraints encountered in the process;
- The impact of any humanitarian situations in the country on the lives of women
- Role played by various international organizations, the international and national civil society and by other groups in the improvement of the situation of the situation of women in the country.

Analyses

- Size, evolution and spatial distribution of the female population of the country (using sex ratios, growth rates, etc)
- An analysis of the age structure of the female population in functional categories – girls of pre-school age (0-3 years); girls of primary school-going age; girls of secondary school-going age; women of childbearing age (15-49 years); women of economically active age (15-64 years); elderly women (60+ years), etc. – employing sex ratios (or femininity ratios) to demonstrate disparities between the sexes with their gender implications.
- Socio-cultural characteristics of the female population (as compared to the male population) – ethnic affiliation, religious affiliation, languages spoken, language(s) of literacy, citizenship
- An analysis of the marital status characteristic of the women (as compared to the men) in the country. Fertility performance of the women – age pattern of fertility, adolescent fertility, children ever born/children surviving by age, etc
- An analysis of the educational characteristics of the women in the country – literacy levels by age; school attendance by level; educational attainment by age – employing sex ratios (or femininity ratios) to demonstrate disparities between the sexes with their gender implications.
- An analysis of the participation of the women – economic activity status (active/inactive highlighting the tendency to underestimate the contribution of women); employment status, professional distribution, branch and sector of activity, etc – employing sex ratios

(or femininity ratios) to demonstrate disparities between the sexes with their gender implications.

- Living conditions of in households of the women (as compared to the men)
 - o Households headed by women – size and structure of households headed by women, headship rates by age, etc.
 - o Housing conditions of dwelling units headed by women – type of building materials; size and ownership; facilities available (water, lighting, fuel, toilet etc); other durable possessions owned, poverty levels, etc.

Conclusions and recommendations

- Highlight the major disparities and their interpretations and implications from a gender perspective
- Highlight major domains which require further investigations (qualitative/quantitative) in order to bring out the main gender dimensions of the observed disparities
- Make recommendations to Government, law-makers, traditional and religious authorities, civil society(including men and women's groups) and other pressure groups for the improvement of the situation of women in the country

THE SITUATION OF CHILDREN, ADOLESCENTS AND YOUTH

Variables concerned : -

Sex, age, relationship to household head, place of residence, literacy, school attendance, educational level attained, economic activity, household and housing characteristics

The essence here is to highlight some major disparities in the characteristics and the living conditions of the children, adolescents and youth as compared to the adult population. These can be compared to situations that obtain elsewhere. It is essential here to clearly provide and justify the definitions for the various categories – children, adolescents and youth – and ensure that they make international comparisons possible.

Other source : MICS , DHS, Past censuses, PRSP and CCA reports, UNICEF National reports on the situation of children, ChildInfo databases; etc)

The context :

- Presentation of the traditional organizational set-up in the country highlighting the status and role played by children, adolescents and youth within the family and the community;
- Some traditional taboos and rites that may be a burden and have harmful impacts children, adolescents and youth;
- Presentation of efforts made so far by authorities to improve on the situation of children, adolescents and youth in the country and their limitations;
- Highlight some legislative instruments in place to ensure the protection of children, adolescents and youth – birth registration, legal protection against exploitation, etc
- Participation of children, adolescents and youth in the country in the production of goods and services and major constraints encountered in the process;
- The impact of recent humanitarian situations in the country on the lives of children, adolescents and youth
- Role played by various international organizations, the international and national civil society and by other groups in the improvement of the situation of the situation of children, adolescents and youth in the country.

Analyses

- Size, evolution and spatial distribution of the population of children, adolescents and youth (using sex ratios, growth rates, etc)
- An analysis of the age structure of the population of children, adolescents and youth in functional categories – children of pre-school age (0-3 years); children and adolescents of primary school-going age; children, adolescents and youth of secondary and tertiary school-going age; children/adolescents and youth of childbearing age ; economically active children, adolescents and youth etc.
- An analysis of the marital status characteristic of the children/adolescents and youth in the country. Fertility performance of the children/adolescents and youth
- An analysis of the educational characteristics of the children, adolescents and youth (as compared to the adult population) in the country – literacy levels by age; school attendance by level; educational attainment by age
- An analysis of the participation of the children, adolescents and youth by sex to economic activity in the country – economic activity status (active/inactive), employment status, employment sector activity, informal sector activity, economic inactivity (unemployment and underemployment, etc)
- Living conditions of in households of the children, adolescents and youth (as compared to the adults)
 - o Households headed by children, adolescents and youth – size and structure of households headed by children and youth, headship rates by sex, etc.

- Housing conditions of dwelling units headed by children, adolescents and youth – type of building materials; size and ownership; facilities available (water, lighting, fuel, toilet etc); other durable possessions owned, poverty levels.

Conclusions and recommendations

THE SITUATION OF HANDICAPPED PERSONS

Concerned variables: - Whether individual has physical handicap
Type of handicap
Cause of handicap
Age and sex of the handicapped person
Other socio-cultural and socio-economic characteristics of the handicapped persons

Other source : Any relevant studies relating to physical incapacitation in the country

Context :

- Some aspects of the physical environment in the country which are likely to expose its inhabitants to risks of incapacitation (diseases, various risks relating to accidents, snake or insect bites, attack from animals, etc)
- Various measure in place to fight against incapacitating diseases and other types of risk factors
- Projects and programmes in place to provide assistance to handicapped persons in the country;
- Traditional perceptions of persons with specific disabilities and which could make their integration or reintegration into the community rather difficult
- Constraints to the integration of handicapped persons into active economic life
- Measure in place within communities to provide assistance to handicapped persons
- An overview of policies and programmes in place targeting handicapped persons
- A appraisal of specialized institutions in place for handicapped persons in the country;
- Various international and national organisations and NGOs that focus on handicapped persons in the country.

An Analysis of the situation of handicapped persons as a whole

- The proportion of handicapped persons by, sex, urban/rural residence, spatial distribution, etc
- An analysis of rates of disability by age and by sex
- An analysis of the socio-cultural and socio-economic characteristics of handicapped persons (literacy, school attendance, marital status, languages spoken, economic activity, etc)

An Analysis of the situation of handicapped persons by type of disability

For each type of handicap:

- An analysis of the proportional distribution of handicapped persons by sex, urban/rural residence and by region of residence
- An analysis of rates of disability by age and by sex
- An analysis of the socio-cultural and socio-economic characteristics of the handicapped persons (literacy, school attendance, marital status, languages spoken, economic activity, etc)
- These analyses should provide sufficiently detailed information for each type of disability in the country. It is worth to mention here that, programmes or projects targeting handicapped persons hardly ever consider all of them as a sub-group but often focus on specific disabilities. This is why this section of the report could be highly pertinent.

An Analysis of the living conditions of handicapped persons

- Proportion of handicapped heads of household and an analysis of the size and structure of the households they head ;
- The quality, living environment and facilities available in housing units headed by handicapped persons by sex compared to the national average conditions

Conclusions and recommendations:

- Emphasis on some of the limitations of use of census data to study persons with disabilities – case of multiple disabilities, locating the time of occurrence of the disability among other lifetime events, the emotional dimensions of incapacitation, etc.
- A proposal of areas for further research on handicapped persons
- A proposal of policies and programmes needed to address observed problems faced by handicapped persons
- Proposed sensitization strategies to enhance the insertion of persons with disabilities within communities.

THE SITUATION OF ELDERLY PERSONS

Variables concerned : - Sex, age, relationship to household head, place of residence, marital status, religious affiliation, languages spoken, literacy, school attendance, educational level attained, economic activity, household and housing characteristics

It is worthwhile to clearly mention and justify the age limit for 'elderly persons' considered in each country analyses.

Other sources: Past censuses, PRSP and CCA reports, etc)

The context :

- Presentation of the traditional organizational set-up in the country highlighting the importance of elderly persons within families and the roles they play within the community
- The changing role and status of the elderly persons with modernization
- The impact of economic and humanitarian crisis situations on elderly persons in the country
- Measures in place to protect elderly persons from various types of exploitation, abuse and discrimination
- Policies and programmes targeting elderly persons
- National and international organizations intervening in the domain of the protection and assistance to elderly persons in the country

Analyses

- Size, evolution and spatial distribution of the population of elderly persons in the country (using various functional age categories to demonstrate the size and evolution of the elderly population)
- An analysis of the age and sex structure of elderly persons in functional categories – old persons, older persons, the oldest old.
- An analysis of the socio-cultural characteristics of elderly persons – ethnic and religious affiliation, languages spoken, literacy, marital status, etc. highlighting striking disparities between the sexes
- Elderly persons and economic dependency - an analysis of the participation of the elderly persons in economic activity – economic activity status; employment status, unemployment and underemployment, etc
- Handicapped elderly persons by type and cause of handicap as compared to the other segments of the population;
- The proportion and living conditions of in households headed by elderly persons with emphasis on sex disparities:
 - o Households headed by elderly persons – size and structure of the households, headship rates by age, etc.
 - o Housing conditions of dwelling units headed by elderly persons – type of building materials; size and ownership; facilities available (water, lighting, fuel, toilet etc); other durable possessions owned, poverty levels.

Conclusions and recommendations

POPULATION PROJECTIONS FOR THE COUNTRY (25-50 YEARS)

- **Variables concerned :** - Age, sex, place of residence, indicators on fertility, mortality, migration, economic activity, household headship rates.

Other sources : Past censuses, PRSP, Sectoral policy documents, other thematic reports)

Introduction:

- A demonstration of the importance of population projections for planning; the duration of the projections; constraints.
- An overview of the procedures for the projections of the population from the national figures to the derived projections
- Sources of information as input data for the projections – highlighting the dependence of this theme on the results from other thematic analyses

** Each major component of the projections should be preceded by a brief context, a presentation of the methods used, the presentation of summary results and detailed commentary on the implications of observed trends

National-level population projections:

- An examination of the trends of growth of the population of the country over the past decade providing sources of information and details on the factors that contributed to such evolution
- A presentation of the cohort component method that has been employed to prepare the projections and the software employed with its various attributes
- A presentation of the main baseline data for projections (age-sex distribution, fertility, mortality, migration) as well as the assumptions for future evolution of the key components according to the various scenarios providing justifications. Incorporate the impact of AIDS (if the data is available)
- A presentation of a summary of the results obtained with commentary on the implications (provide the detailed results in the appendix)

Urban/Rural Population Projections

- An examination of the trends of growth of the urban and rural populations in the country over the past decade providing sources of information and details on the factors that contributed to such evolution
- A presentation of the methods employed to prepare the urban and rural projections
- A presentation of the main assumptions for future evolution of the urban and rural populations according to the various scenarios providing justifications.
- A presentation of a summary of the results obtained with commentary on the implications (provide the detailed results in the appendix)

Regional Population Projections

- An examination of the trends of growth of the regional populations in the country over the past decade explaining the factors that contributed to such evolution
- A presentation of the methods employed to prepare regional projections
- A presentation of the main assumptions for future evolution of the regional populations according to the most plausible projections (medium variant).
- A presentation of a summary of the results obtained with commentary on the implications (provide the detailed results in the appendix)

Derived Projections

School-age population and schooling needs

- An analysis of the various levels of education in the country and the ages of eligibility
- An examination of the current situation of formal education and the observed evolution over the past years
- A presentation of the observed rates of school attendance by age, by sex and by place of residence from the thematic analyses (from the theme on Educational Characteristics)
- A presentation of the methods employed to prepare the projections of the schooling population and for deriving other needs
- A presentation of the main assumptions for future evolution of the schooling rates according to the most plausible projections (medium variant).
- A presentation of a summary of the results obtained with commentary on the implications

Labour force projections and employment needs

- An analysis of the various types and sectors of economic activity in the country and the ages of eligibility
- A presentation of the observed rates of economic activity by age, by sex and by place of residence from the thematic analyses (from the theme on Economic Activity)
- A presentation of the methods employed to prepare the projections of the future economically active and inactive populations and for deriving other needs
- A presentation of the main assumptions for future evolution of the future economic activity rates according to the most plausible projections (medium variant).
- A presentation of a summary of the results obtained with commentary on the implications

Housing needs projections

- An analysis of the housing situation in the country and the programmes in place to improve on housing and its facilities
- A presentation of the observed household headship rates by age, by sex and by place of residence from the thematic analyses (from the theme on Households)
- A presentation of the methods employed to prepare the projections of the future households and for deriving other needs
- A presentation of the main assumptions for future evolution of the future headship rates according to the most plausible projections (medium variant).
- A presentation of a summary of the results obtained with commentary on the implications

Conclusions and recommendations

A SYNTHESIS OF THE RESULTS OF THE THEMATIC ANALYSES OF THE CENSUS RESULTS

Variables concerned : - All variables in the census questionnaire

Context: A presentation of the objectives and strategies of the execution of the census project highlighting the major milestones in the implementation process and the added value of the current censuses as compared to previous censuses and other data collection operations.
An evaluation of the census coverage and the quality of the data

Spatial distribution of the population

- Resident Population by major administrative units
- Evolution of population in the provinces
- Current Population Density by administrative unit
- Evolution in population densities by administrative unit as compared to previous census
- Resident Population according to place of residence
- Patterns of Urban population growth

The Sex and age structure of the population

- Analysis of Sex Ratios
- The Age Structure of the population (population pyramids, conventional age groups, mean ages)

The dynamics of the population

- The evolution of the population
- Marital Status and Nuptiality patterns
- Levels and Trends of Fertility (life-time and current fertility)
- Levels and Trends of Mortality (infant and child mortality, overall mortality, life table values)
- Migration (life-time and recent migration trends, origin and destination of migratory flows)

Socio-cultural characteristics of the population

- Religious Affiliation of the Population
- Languages spoken
- Population by ethnic group (where applicable)
- Population by nationality

Literacy and Educational characteristics of the population

- Level of literacy
- School attendance (schooling rates, level attained)
- Certificates obtained (where applicable)

Economic activity characteristics of the population

- Characteristics of the Active and Inactive Population
- Economic dependency ratios
- Characteristics of the inactive population
- Characteristics of the Economically Active and Employed population
 - Type of employment
 - Economic activity status
 - Branch/Sector of economic activity

Characteristics of ordinary households

- Distribution of ordinary households and the resident population (household size variation)
- Characteristics of heads of households (headship rates)
- Composition of ordinary households
- Typology of Households

Housing Characteristics

- Distribution of housing units by type of housing
- Distribution of housing units by type of housing Structure
- Distribution of housing units by type of roof
- Distribution of housing units by type of materials for the outside walls
- Distribution of housing units by Materials for the Floor
- The Size of housing units
- Main Source of Water Supply
- The Main Source of Energy for Lighting
- Main source of energy for cooking
- Type of Toilet Facility
- Mode of occupancy of the housing units
- Availability of equipment for receiving information
- Availability of equipment for communication
- Availability of a means of transportation (vehicle, motorcycle, bicycle)
- Availability of modern farm implements

The standard of well-being of the population (Poverty Analyses)

- Standard of well-being of the population by administrative unit and by place of residence
- Characteristics of household heads by standard of well-being
- Household standard of well-being by educational level of household head
- Household standard of well-being and school attendance of resident children
- Household standard of well-being by economic activity characteristics of household head

Characteristics of Vulnerable Persons

- Population of handicapped persons
 - Size, distribution and rates
 - Characteristics of handicapped persons
 - Types and causes of incapacitation
 - Living conditions of handicapped persons
- Population of elderly persons
 - Size and distribution
 - Characteristics of elderly persons (socio-cultural, economic, etc)
 - Living conditions of handicapped persons
- Population of children and adolescents
 - Size and distribution
 - Structure of the children and adolescent population by functional groups
 - The dynamics of the population of children and adolescents
 - Marriage among adolescents
 - Fertility among adolescents
 - Migration of children and adolescents
 - Relationship of children and adolescents to the head of household
 - Literacy and education level of children and adolescents
 - The participation of children and adolescents in economic activity
- Population of women
 - Size, structure and distribution of the female population

- The dynamics of the female population
- Marital status and fertility
- Mortality levels among women
- Migration among the female population
- Literacy and education level of women
- Participation of women in economic activity
- Vulnerability within the female population (handicapped, widowed, elderly women)
- Living conditions in female-headed households

Population Projections

- Presentation of methodology
- Assumptions for the overall projections (fertility, mortality, migration)
- Summaries of the projected population and discussions of patterns of expected evolution (total, Urban/rural, regional, school population, economically active population, households)
- Possible consequences of future population dynamics and proposed solutions

Conclusions

OUTLINE OF REGIONAL MONOGRAPHS

Contexte

- Geographic location and some physical characteristics region
- Administrative set-up and past administrative history of the Region

Population size, distribution and structure

- Population size and spatial distribution
- Densities by sub-administrative units
- Age and sex structure of the population

Socio-cultural Characteristics of the population

- Composition of the population by ethnic affiliation
- Composition of the population by languages spoken
- Composition of the population by religious affiliation
- Composition of the population by citizenship

Composition of the adult population by marital status

- Marital status characteristics by sex and by sub-administrative units
- Mean age at first marriage by sex

Population dynamics within the region

Fertility levels

- Recent fertility levels (ASFR, TFR)
- Cumulative fertility levels (CEB)

Morbidity and mortality levels

- Infant and child mortality levels
- Adult mortality levels

Migratory movements

- Migratory exchanges with other Regions and countries
 - Lifetime migration
 - Recent migration
- Internal migratory streams within the Region
 - Lifetime migration
 - Recent migration

Literacy and educational attainment

- Literacy
- School attendance
- Educational attainment

Economic Activity characteristics of the population

- Composition by economic activity
- Composition of the active population by economic activity status
- Economically active population by profession
- Economically active population by branch and sector of activity

Characteristics of households

- Distribution of households and household heads by sex and by sub-administrative units
- Average household size by sub-administrative units

Housing characteristics (by sub-administrative units)

- Dwelling units by type of housing structure
- Dwelling units by type material used for the roofing
- Dwelling units by type material used for the walls
- Dwelling units by type material used for the floor
- Dwelling units by size (number of living rooms)
- Dwelling units by type material used for the roofing
- Dwelling units by ownership status
- Dwelling units by main source of water supply
- Dwelling units by main source of energy for lighting
- Dwelling units by main source of energy for cooking

- Dwelling units by availability of modern source of information
- Dwelling units by availability of electronic household equipment
- Dwelling units by availability of means of transportation

Levels of non-monetary poverty

- Levels of non-monetary poverty by sub-administrative units

Conclusions and recommendations

THE GEO-DEMOGRAPHIC ATLAS

Introduction

In essence, the geo-demographic atlas is medium used for the presentation spatial variation of some of the key findings of the results of the census. It is an outcome of the merging of the cartographic database resulting from census cartography and GIS technology and the demographic database created after data processing. The main link between these two databases is the *geo-code* which enables the association of specific indicators derived from demographic analyses to specific geographical areas.

The geo-demographic atlas consists therefore, of a series of maps displaying key findings from the census. These are accompanied by one-page commentaries such that each broad 2-page of the atlas has commentaries on one page and the map on the next page. By providing a visual dimension to the results and accompanying them with commentary which provides some background information from other sources to explain observed patterns, this report is among the most valuable products of a census project. It is used both for planning and as a didactic tool for training and vulgarization of census results.

Context

- The geographical situation of the country
- The Relief of the country
- The drainage patterns in the country
- The Climate – Rainfall and temperatures
- The administrative set-up of the country
- The route network and major communication facilities in the country
- The location of major health and school infrastructure in each of the regions (1 map for each region accompanied by commentaries)

Spatial Distribution

- The size and evolution of the population by region
- The proportion of the urban population by region
- The hierarchy of the urban population in the country –size and structure
- Population densities in the country

Population Structure and Dynamics

- Sex-Age structure of the population by region
- Proportion of children and youth aged less than 18 years by region
- Proportional distribution of children and youth by survivorship of their parents by region
- Proportion of women of reproductive age by region
- Sex ratio variation by administrative unit
- Patterns of demographic dependency ratios
- Resident population by health center located within the administrative unit
- Resident population by hospital located within the administrative unit
- Total fertility rate by administrative unit
- Immigrant population as proportion of the resident population in each administrative unit

- Out-migrant population as proportion of the population born in each administrative unit
- Sex ratio variation among the migrant population in each administrative unit
- Direction of main migration streams and exchanges

Socio-economic and Socio-cultural characteristics of the population

- Proportion of children aged 6-18 years who have never been to school by administrative unit
- Proportion of the population aged 15 years and above who are literate by administrative unit
- Sex ratio among the literate population (15+ years) by administrative unit
- Ratio of the primary school-going population (6-13 years) to a primary school located within each administrative unit
- Ratio of the secondary school-going population to a secondary school located within each administrative unit
- Distribution of the population that ever attended school by level of education attained and by administrative unit
- Proportion of the economically active population (15+ years) by administrative unit
- Proportional distribution of the economically active population by sector of economic activity in main urban areas (by region where feasible)
- Patterns of economic dependency ratios by administrative unit
- Proportional distribution of the population/households by level of well-being/poverty and by region
- Proportional distribution of the population by religious affiliation and by region

Households and housing characteristics

- Typology of households by region
- Proportion of female-headed households by administrative unit
- Proportion of housing units with roofing of durable materials by administrative unit
- Proportion of housing units with access to potable water by administrative unit
- Proportional distribution of housing units by source of energy for lighting and by administrative unit
- Proportional distribution of housing units by source of energy for cooking and by administrative unit
- Proportion of housing units having at least a radio receiver by administrative unit
- Proportion of housing units having at least a television receiver by administrative unit
- Proportion of housing units having at least a bicycle by administrative unit
- Proportion of housing units having at least motor vehicle by administrative unit
- Proportion of housing units having at least a motorcycle by administrative unit

References