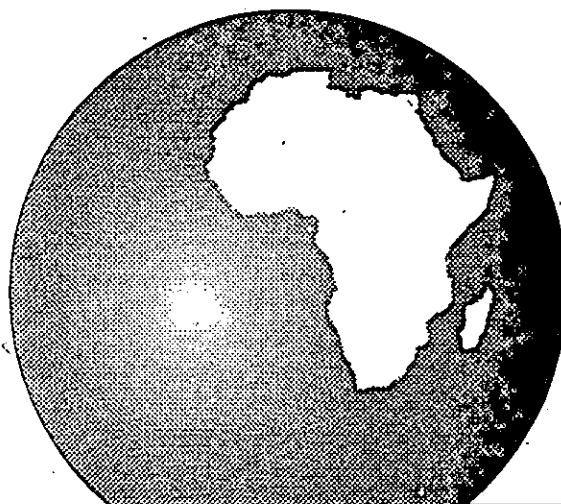




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REPORT ON MISSION
TO PARTICIPATE IN THE REGIONAL WORKING GROUP
ON RECOMMENDATIONS FOR THE 2000 ROUND OF
POPULATION AND HOUSING CENSUSES IN AFRICA

22-26 JANUARY, 1996

By
Parmeet Singh
Regional Adviser
Organization and Management of National
Statistical Information Systems

Addis Ababa
February, 1996

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I BACKGROUND

The Regional Working Group was convened to synthesize recommendations from the African Region on the 2000 Round of Population and Housing Censuses in Africa. The Regional Working Group was the fifth in a series convened by ECA for the experts African Region to exchange their experiences in the execution of population and housing censuses. The Working Group was convened to examine the global recommendations made by the UN for the earlier rounds of the population and housing censuses in the light of Africa's experiences and to adopt African variants. The recommendations of the Working Group are, as in the past, to be submitted to the global Expert Group Meeting on the 2000 Round of World Population and Housing Census Programme to be held in New York, later this year.

The Working Group was convened by the Statistics Division of ECA.

II TERMS OF REFERENCE

A population and housing census is the principle source of statistics on population and housing characteristics. It is important to ensure that population and housing censuses are not conducted as one-off statistical operations, which African countries would undertake at ten-yearly intervals. Rather they should be conducted as bench-mark events in continuing and integrated programmes of data collection, processing, evaluation, analysis and dissemination. This is important particularly at this juncture in Africa to ensure the collection of data required to monitor the implementation of the recommendations of the Plan of Action of the International Conference on Population and Development (ICPD-PA); and of the Dakar-Ngor Declaration on Family and Sustainable Development. Population and housing censuses have indeed a key role to play in the evolution of integrated national statistical systems.

Also the high costs of population and housing censuses have now emerged as a major problem which is impeding the progress in the development of statistical systems in many African countries. There is need to make censuses less expensive and it is felt that establishment of integrated data collection systems involving linkages between censuses and other components of the national data collection systems would facilitate that.

The Regional adviser was invited to participate in the Working Group as a resource person to prepare a paper on agenda item 5 of the Working Group Meeting on the "Role of Population and Housing Census in the Development of Integrated National Information System". A copy of the agenda of the Working Group Meeting is here attached as **Appendix 1**.

III RESOURCE INPUTS

The Regional Adviser's essential and substantive input was the paper that he prepared and presented to the Working Group on the "Role of Population Census in the Development of an Integrated National Statistical Information System". A copy of the paper is here attached as **Appendix 2**. The paper had concluded by a listing the following issues for discussion.

1. "Merits and demerits of using population censuses as instruments for collection of integrated data vis-à-vis the potential of using them as frames for sample designs to collect similar data through integrated programmes of household surveys.
2. Need for and prospects of simplifying the scope and coverage 2000 Round of Population Censuses to make them less costly and to enhance timeliness in delivery of population census data.
3. Scope and content of simplified population censuses.
4. Constraints in developing integrated programmes of household surveys as an alternative source to population censuses.
5. Constraints in further developing population census data bases into more broadly based data bases incorporating data from diverse sources.
6. Constraints in further development of techniques in taking of population censuses, especially the refinement of cartographic delineation of the country into small and well identified, homogeneously sized population census enumeration areas.
7. Constraints in developing common organizational and institutional arrangements for the conduct of population and agriculture and livestock censuses and censuses/surveys of household based non-agricultural enterprises." ^{1/}

The discussion of the paper by the Working Group as incorporated in the report of the Working Group is summed up on **Appendix 3**. The Working Group concluded its deliberations on the paper and the relevant agenda item by recommending that:

- (i) "Status of and constraints in developing integrated programmes of household surveys, as an alternative source of data to population censuses in Africa region be reviewed.

^{1/} ECA/STAT/WG/PHC/4 - page 5

- (ii) Status of and constraints in further development of techniques in taking population censuses, especially the requirement of cartographic delineation of the country into small and well identified homogeneously sized population census enumeration areas in the region, be reviewed.
- (iii) Scope and content of the 2000 Round of Population and Housing Censuses in Africa be simplified in context of the outcome of reviews recommended in (i) and (ii) above.
- (iv) Constraints in developing common infrastructure and organizational and institutional arrangements for the conduct of population and agriculture and livestock censuses be eliminated.
- (v) African countries should prepare a computerized frame of population census enumeration areas to facilitate conduct of censuses of agriculture and livestock. Such a frame should incorporate the following data:
 - Enumeration area number
 - Name of enumeration area base
 - Total population (disaggregated by sex)
 - Population in 4 or 5 broad age groups
 - School attendance
 - Farm population
 - Predominant crops cultivated."2/

The Regional Adviser participated in the meeting of the Working Group over its entire duration. Many of the issues raised by him in his paper cropped up again in agenda items (6), (7) (8) and (9) too. The entire deliberations of the Working Group and its recommendations are set out in the report of the Working Group - document N. ECA/STAT/WG/PHC/95.

IV MISSION ASSESSMENT

The Regional Adviser is satisfied with the impact that his paper for agenda item (5) has had on the deliberations and recommendations of the Working Group.

As far as the deliberations and recommendations of the Working Group as a whole are concerned the Regional Adviser feels:

- i They lacked precision and depth being rather general.
- ii Not enough detail emerged on the specific issue of integration of the census in the national statistical information system.
- iii The Working Group didnot adequately review the census to reduce its operational costs. To the contrary, emphasis was accorded to the need for external support, knowing that such support had been declining in the 1990's and was expected to continue doing so in the next decade!!
- iv The Working Group didnot place adequate emphasis on the need for institutional arrangements in the countries which would facilitate deployment of indigenous manpower resources to implement the censuses, and hence make census operations self sustaining.
- v The recommendations on the coverage of economic issues in the census were not consistent with the deliberations of the Working Group, which had high-lighted the constraints of covering the economic issue in the census.



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**Regional Working Group on
Recommendations for the
2000 Round of Population and
Housing Censuses in Africa**

22-26 January 1996
Addis Ababa, Ethiopia.

PROVISIONAL AGENDA

1. Opening address.
2. Election of officers.
3. Adoption of the agenda.
4. Census programmes in the context of the Programme of Action of the International Conference on Population and Development (ICPD), the Dakar-Ngor Declaration and other development frameworks.
5. Role of population and housing census in the development of integrated national information system.
6. The 1990 Round of Population and Housing Census in Africa: Major developments and issues.

7. Emerging issues in African Population and Housing Censuses.

- a) Census cartography and automated mapping;
- b) Enumeration methods for coverage of special population groups and uses of sampling in censuses;
- c) Data capture and data processing;
- d) Data analysis;
- e) Dissemination methods and promotion of data utilization

8. Population and housing census topics:

- a) Measurement of economic activity
- b) Disability statistics
- c) Family and household characteristics
- d) Migration
- e) Concepts, classifications and tabulation in housing censuses.

9. Census financing and role of external support.

10. Recommendations.

11. Other business.

12. Adoption of the report.



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ROLE OF POPULATION CENSUS IN THE DEVELOPMENT OF
AN INTEGRATED NATIONAL STATISTICAL INFORMATION SYSTEM

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ROLE OF POPULATION CENSUS IN THE DEVELOPMENT OF AN INTEGRATED NATIONAL STATISTICAL INFORMATION SYSTEM

BY

ECA MRAG

I. BACKGROUND

1. Population censuses have been undertaken in parts of this region, ever since the early years of this century and, in the case of Ghana, even earlier, dating back to the last quarter of the last century. Most countries, however, started taking population censuses since the war and, since then, have endeavoured to maintain regular decennial periodicity of the population censuses. Having originated essentially as a head count of a country's population, the scope and coverage of the information collected in population censuses has steadily been extended beyond a head count exercise to cover basic demographic parameters, as well as socio-demographic and economic information. Indeed, till the advent of an activist role for government in economic and social policy in the post-war years, population censuses constituted the principal component of the national statistical information system. The other principal component being the system of external trade statistics based on customs and excise records. In many countries of the region, these two information systems predate the creation of central statistical organizations.

2. Since the war and with the acquisition of independence by most countries in the region, the scope and coverage of the national statistical information systems has been steadily extended beyond population censuses and the systems of trade statistics with central statistical organizations being set up in the national bureaucracies, as agencies primarily responsible for their development. This expansion of the national statistical information systems has also been accompanied with an evolution in the role of population censuses in development of integrated national statistical information systems. This paper reviews this evolution focusing on the role of population census as an instrument of data collection in integration of the national statistical information system.

3. Section II of the paper deals with the current status on the role of population censuses in development of integrated national statistical information systems. The future potential of population censuses in the development of integrated national statistical information systems is reviewed in Section III of the paper. The conclusion is set out in Section IV and issues for discussion in Section V.

II. CURRENT STATUS

4. As noted above, population censuses were initiated essentially as a head count of people to provide respective governments of the countries in the region with information on size and location of their populace. Right from the very beginning, additional information on demographic characteristics was also secured through population censuses to compile basic demographic profiles of the population. Given the emerging need for socio-demographic and economic data to help governments formulate activist economic and social policies, the population census was seen as a

9. This development of household sample surveys to collect socio-demographic and economic data has been facilitated by the developments in the science of sampling, which, it is contended, can enable collection of data of as good a quality if not better, with greater frequency and timeliness and, most significantly, at lesser cost, than population census. Secondly, improvements in the last 30 years in the techniques of census taking, such as the use of cartography to facilitate precise identification of population census enumeration areas, have made possible the adoption and implementation of the more sophisticated sampling techniques. As a result similar types of data are now being obtained through both population censuses as well as household surveys, respectively, in countries of the region, depending on the respective capabilities of the central statistical organizations in undertaking household surveys. Be that as it may, this is still a nascent indication of an emerging role for population censuses in development of integrated statistical information systems, by facilitating integration of data from diverse sources, as opposed to a population census being an instrument for collection of integrated data, *per-se*. This has been facilitated by the potential of a population census as a frame, composed of minutely identified enumeration areas, to enable sophisticated sample designs to be constituted, for use in implementation of integrated household survey programmes. Also household survey programmes are being developed using, where relevant, concepts, definitions and classifications which are consistent with those used in population censuses.

III. THE FUTURE

10. The extent to which the potential of population censuses in development of integrated statistical systems, both through the use of population censuses as a frame for sample designs and through the use of consistent concepts, definitions and classifications for integrated household survey programme, depends very much on the extent to which countries in the region succeed in obtaining internal and external resources to mount integrated household survey programmes. These call for manpower capability and infrastructure such as field survey organizations which not all countries in the region have hitherto succeeded in establishing. The countries also need to set up censuses as an on-going operation, as opposed to an ad-hoc initiative, to undertake the required continuous improvement in the cartographic delineation of the country into population census enumeration areas. Thirdly, it also calls for overcoming the bottlenecks in the application of computing technology which would enable creation of integrated computerized data bases at lower levels of geographic disaggregation than has been achieved in most countries yet. While many countries in the region have now established versatile data bases on information obtained through a population census, they have not yet been successful in integrating into these data bases the socio-demographic and economic information collected through integrated household survey programmes using population based master samples. The prospect of further developing population census data bases into more broadly based data bases incorporating data from diverse sources is another dimension of integration of national statistical systems with a significant bearing on dissemination of data.

11. The paper has so far reviewed the integrating role of population census in collection of data, be it in the form of collecting integrated data through use of multi-subject data collection instruments, or through the use of population census data as a frame for master sample designs which could facilitate integration of data from diverse sources which constitute an integrated

14. The paper has focused on the role of population census in integrating data from household surveys in the context of development of an integrated national statistical system. Censuses and surveys are two of the three sources of data which constitute the national statistical system. Administrative records are the third source. Not much can be said, at this stage, on the role in this region, of population census in promoting/facilitating integration of data from administrative records into national statistical systems. This will need to await till such time that the coverage of data from administrative records has been made more comprehensive than is the case at the moment. In the meantime and in the context of this paper, current endeavours to develop administrative records as viable source of data, especially from vital registration records and on health and education, should continue, ensuring as far as possible the use of concepts, definitions and classifications which are consistent with those used in population censuses and in integrated programmes of household surveys. Given the comprehensive coverage, the 'flow' data from administrative records could usefully complement the 'stock' data from population census. In such a situation, administrative records may in fact be a more cost effective source for some of the data that in the foreseeable future, it is anticipated, will continue being collected through household surveys.

V. ISSUES FOR DISCUSSION

15. The working group may like to address the following issues emerging from the above detailed review of the role of population censuses in the development of integrated national statistical information systems:

1. Merits and demerits of using population censuses as instruments for collection of integrated data vis-à-vis the potential of using them as frames for sample designs to collect similar data through integrated programmes of household surveys.
2. Need for and prospects of simplifying the scope and coverage of 2000 Round of Population Censuses to make them less costly and to enhance timeliness in delivery of population census data.
3. Scope and content of simplified population censuses.
4. Constraints in developing integrated programmes of household surveys as an alternative source to population censuses.
5. Constraints in further developing population census data bases into more broadly based data bases incorporating data from diverse sources.
6. Constraints in further development of techniques in taking of population censuses, especially the refinement of cartographic delineation of the country into small and well identified, homogeneously sized population census enumeration areas.
7. Constraints in developing common organizational and institutional arrangements for the conduct of population and agriculture and livestock censuses and censuses/surveys of household based non-agricultural enterprises.

**Regional Working Group on Recommendations
for the 2000 Round of Population and
Housing Censuses in Africa**

Agenda Item 5

**"Role of Population and Housing Census in the Development of
Integrated National Information System"**

The Working Group initiated its deliberations on this item of the agenda with a review of paper ECA/STAT/WG/PHC/95/4 which had been prepared and was presented by the Secretariat.

In reviewing the role of population censuses in development of integrated national statistical information systems, the paper had noted that population censuses had a significant role to play in the context of promoting integration of data from diverse sources and that this potential is far from being fully utilized in the region. It was noted that this had been facilitated essentially by developments in the science of sampling, electronic data processing, and the improvements in the techniques of census taking, especially through use of cartographic records which had facilitated precise identification of population census enumeration areas. However, to achieve the full potential of integration, countries it was indicated needed to set up census as an on-going operation, to undertake the required continuous improvement in the cartographic delineation of the country into population census enumeration areas. Simultaneously, it was stated, the countries needed to acquire capability to establish alternative sources of data collection, such as integrated household survey programmes. The paper had also stipulated that there was need for change in institutional and organizational arrangements for undertaking population censuses, so that the infrastructure created for population censuses could be utilized for undertaking censuses of agriculture and livestock and censuses/surveys of household based non-agricultural enterprises. In this context, the Working Group had before it a proposal by the FAO to include a relevant recommendation in the African Supplement of the Decennial Programme for Population and Housing Censuses.

Finally, the paper had observed that the issue of using population census as an instrument for development of integrated national statistical systems was likely to assume greater significance in Africa region in the 2000 Round of Population Censuses for which, as per current indications, the countries in the region may not be able to attract the level of external support they have had in the previous three decennial rounds of censuses. The countries will therefore, it was noted, need to consider more cost-effective options on undertaking population censuses. This consideration, the paper emphasized, would certainly be facilitated

by further promotion of the role of population censuses in the development of integrated national statistical systems and a review of the scope and content of population census.

In its ensuing deliberations, the Working Group agreed that population census should be considered as the source for data for a nucleus data base into which data from other sources could be integrated. It was stated that although population censuses were an irreplaceable source of data especially at small area level, population censuses were a heavy and costly operation to manage. In interests of quality, timeliness and costs, the Working Group therefore felt, population censuses should be utilized for collection of minimal information with increasing use being made of household surveys as alternative sources of data. This would, the Working Group felt, result in improvement of the quality and timeliness of data from population censuses and reduction in the costs of census operations.

The Working Group concluded its deliberations in this agenda item by recommending that:

- (i) status of and constraints in developing integrated programmes of household surveys, as an alternative source of data to population censuses in Africa region be reviewed;
- (ii) status of and constraints in further development of techniques in taking population censuses, especially the requirement of cartographic delineation of the country into small and well identified homogeneously sized population census enumeration areas in the region, be reviewed;
- (iii) scope and content of the 2000 Round of Population and Housing Censuses in Africa be simplified in context of the outcome of reviews recommended in (i) and (ii) above;
- (iv) constraints in developing common infrastructure and organizational and institutional arrangements for the conduct of population and agriculture and livestock censuses be eliminated;
- (v) to the extent that it did not affect the workload of population censuses questionnaire, African countries should prepare a computerized frame of population census enumeration areas to facilitate conduct of censuses of agriculture and livestock. Such frame should incorporate the following data:
 - Enumeration area number
 - Name of enumeration area base
 - Total population (disaggregated by sex)

- Population in 4 or 5 broad age groups
- School attendance
- Farm population
- Predominant crops cultivated.