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United Nations Regional Seminar on Census Data Dissemination and Spatial Analysis
14-17 September 2010
Nairobi, Kenya

Final Report of the Regional Seminar [1]

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I. INTRODUCTION

A. Background and objective of the regional seminar

The United Nations Regional Seminar on Census Data Dissemination and Spatial Analysis was convened in Nairobi, Kenya from 14 to 17 September 2010. The regional seminar was organized by the Demographic and Social Statistics Branch of the United Nations Statistics Division (UNSD) in collaboration with the Kenya National Bureau of Statistics. The regional seminar was organized as an integral activity of the *2010 World Population and Housing Census Programme* which strives to improve statistical capacity in order to assist countries to effectively conduct population and housing censuses.

The regional seminar was organized with the aim to provide a forum for sharing national practices and experiences in the dissemination and use of census data. The seminar reviewed emerging trends, innovative approaches and technological tools employed in the dissemination of census data. Furthermore, the seminar was aimed at providing a basis for: i) assessing existing national dissemination strategies as well as technologies used by national statistical offices across Africa; ii) taking stock of national capacities and challenges for meeting the increasing requirements of census data users; and iii) identifying good practices and lessons learned in the dissemination and analysis of census data.

The regional seminar was attended by census practitioners from 29 national statistical offices in Africa consisting of countries that have recently conducted a census or are actively planning to conduct one: Burkina Faso, Burundi, Cameroon, Cape Verde, Congo, Egypt, Ethiopia, Gambia, Ghana, Guinea Bissau, Kenya, Lesotho, Liberia, Malawi, Mali, Mauritius, Morocco, Mozambique, Namibia, Nigeria, Rwanda, Senegal, South Africa, Swaziland, Tanzania, Tunisia, Uganda, Zambia and Zimbabwe. The seminar was also attended by three regional and international organizations—the African Capacity Building Foundation (ACBF), the African Development Bank (AfDB) and UNFPA Africa Region—contributing towards the strengthening of statistical capacity in Africa. (See Annex II for the full list of participants.)

B. Organization of the regional seminar

The regional seminar was conducted according to the Work Programme (see Annex I). A number of presentations were delivered by UNSD and participating countries to initiate and steer the general discussion under each topic. The topics—focusing on a significant aspect of a census data dissemination strategy—included: identification and consultation with data users; determination of the scope and the form of dissemination; issues of accessibility, confidentiality, copyright and meta-data; and the use of technological tools for publishing, accessing and interactively using census data. In addition, some of the presentations covered issues related to the integration of geographic information in census data products and spatial analysis. The general discussion on each topic facilitated the exchange of national experiences and helped to bring out the main issues and challenges in the dissemination and use of census data. All the presentations can be accessed at the United Nations Statistics Division (UNSD) website[2].

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[2] Please see: http://unstats.un.org/unsd/demographic/meetings/wshops/Kenya_14Sept2010/list_of_docs.htm

II. SEMINAR PRESENTATIONS

Presentations made at the regional seminar are available on the UNSD website: http://unstats.un.org/unsd/demographic/meetings/wshops/Kenya_14Sept2010/list_of_docs.htm

III. RECOMMENDATIONS

The Regional Seminar on Census Data Dissemination and Spatial Analysis adopted the following conclusions and recommendations.

Dissemination Strategy Development

1.   The census dissemination programme should be considered as an integral part of the overall census process, based on a detailed analysis of the potential-users needs and requirements and its prioritization, and include the list and timing of the main dissemination operations, their estimated costs and the human and technological resources that will be needed. Stakeholders responsible for the funding of the census operations should be made aware since the beginning that census dissemination activities will end long after the end of the collection phase, and that these extended activities need to be properly funded.

2.   UNSD and UNFPA should play a critical role, in collaboration with national governments, on developing strategies to improve statistical literacy and awareness among users, in particular policy makers and the media. They should also facilitate the development of a framework for improving institutional capacities of national statistical offices (NSOs) to analyze and disseminate census data effectively through partnerships, networking and sharing of expertise emphasizing on South-South cooperation.

Acceptance of Census Results

3.   In some countries, it is a statutory requirement for the political leadership to approve census results before they are disseminated. If this is the case, such approval should be based on census-experts evaluation of the results. If required, the process could be verified by external consultants to increase credibility and acceptance of census products by users and the general public.

4.   Production and dissemination of census data should adhere to international recommendations and stress the importance of the fundamental principles of official statistics; the implementation of an extended quality assurance plan, including a reliable and extensive census results evaluation program; and the appointment of an external monitoring team of the census operations.

The Dissemination Process

5.   The team of data analysts needs to be appointed as early as possible in the census planning stage to ensure that the collected information suits analytical needs and to speed up the production of the analytical reports. The team should be composed of various competencies, including census geography specialists. It is recommended that NSOs should have a dedicated communication/ dissemination unit, with its staff trained both in

communication and statistics, to ensure that census products are delivered in user-friendly format.

6. It was recognized that the media can be considered as an ally in dissemination, and if it is effectively used, it can enhance awareness of the census products among the general public. It was also recognized that the need to enhance statistical literacy of the general population, the media, and potential users is crucial for the success of a census operation. Educational programs on the ways to access, interpret and use census statistical data may also be needed for this purpose.

7. The mix of different media to be used in the dissemination process should be adapted to the situation in each country. In countries where there is limited access to internet, other alternative means of dissemination should be considered.

Collaboration with others

8. It was agreed that it is critical to identify and consult with data users in general, and also build partnerships with major data users at various stages of census implementation, right from the census planning phase. NSOs should conduct a user's satisfaction survey regularly.

9. NSOs may not have sufficient resources to produce all the desired products. It was recommended that NSOs forge partnerships with other institutions to meet additional users' needs. If such collaboration requires outsourcing, the NSO should ensure that it remains in control of the process. NSOs should collaborate with international, regional and sub-regional organizations in the undertaking of population and housing censuses to increase resources for the production of quality and timely outputs.

Dissemination Technologies

10. It was recognized that modern technologies enhance the capacity of NSOs to meet the data dissemination challenges, and it was recommended that the choice of the tools to use should be based, as much as possible, on the dissemination plan highlighting the content and format of census products, including metadata, and the target audience.

11. It was agreed that for the selection of the census dissemination technological tools, the NSOs should also consider:
• cooperating with other statistical organizations, and/or create regional groups to harmonize data outputs;
• relying on a symbiosis between efforts within the national statistical authorities and outsourced contractors;
• encourage using open source software if it satisfies the purposes of the NSO.

12. The participants recognized that the use and application of contemporary geo-spatial technologies and geographic information systems (GIS) is beneficial to the efficiency in all the phases of undertaking population and housing censuses, including census data dissemination. NSOs should regard the census geography programme as a continuous process in support of all statistical activities, taking into account that its development and management require significant availability of resources and technical support.

13. The participants also recognized the value added of building geographical databases at enumeration area level for data dissemination for small areas. The participants noted that geographical presentation of census data significantly increased the interest of users, resulting in a better appreciation of census products and statistical work in general.

14. The participants recognized that most NSOs have either built or are building their geographic databases and Geographic Information Systems and, thus, reaching a new stage to proceed with advanced spatial analysis for decision making and country policy development. In this regard, they agree that for the definition of the dissemination plan for census spatial data, the NSOs should be advised:
• To define the geographic output products and services (thematic maps, static and/or dynamic atlas, Internet mapping, digital boundaries of administrative and statistical units, grids, gazetteers, etc.);
• To prepare a timetable of activities for the post-enumeration census mapping activities;
• To plan training activities on spatial data analysis and dissemination for the staff of the NSO;
• To define the disaggregated level of spatial data for dissemination taking into account disclosure and privacy issues;
• To attempt to define urban/rural/peri-urban areas for statistical purposes using spatial analysis techniques.

15. NSOs should provide access to any data collected, including micro-data, for any legitimate use finding the proper way to avoid the risk of disclosure of confidential/private information and take the proper measures to do it, not only because it is required by the Fundamental Principles of Statistics, but also because it is of benefit to the NSO to increase public confidence in its products. Attention should also be given to data copyright in order to ensure the proper use of census information and to acknowledge that census data was provided by the NSO.

16. The participants agreed that metadata should be an integral part of the census process, including census dissemination. Dissemination of metadata should be comprehensive and accessible. It was recognized that there is a lack of metadata standards and, therefore, there is a need to develop a minimum of mandatory metadata elements, including concepts and definitions, classifications, methodologies, and data structures.

Annex I: Programme of work

Time	Topic	Responsibility	Document
Monday September 14, 2010			
Opening			
9:00 – 9:30	*Registration of participants*		
9:30 – 10:00	**Session 1 – Opening remarks -** KNBS, UNSD, UNECA, administrative matters	KNBS, UNSD UNECA	
	The 2010 World Programme on Population and Housing Censuses and the preparations of the 2010 round of censuses in the region, and international recommendations on census planning and management Objective: To present the activities on 2010 World Programme on Population and Housing Censuses followed by a round table on the preparations of 2010 round of censuses in the region		
10:00 – 11:00	**Session 2 – The 2010 World Programme on Population and Housing Censuses** - Presentation by UNSD - Round table presentation by countries - General discussion	UNSD	
11:00 – 11:30	*Coffee break*		
11:30 – 12:30	**Session 3 – Regional Perspective on Census Data Dissemination** - Presentation by UNECA - General Discussion	UNECA	
12:30 – 13:30	*Lunch*		
	Development of Strategies for Census Data Dissemination Objective: To present and discuss strategies for identification of different types of data users; determining data user needs; the extent to which data users should be consulted; and developing a matrix of data dissemination tools by types of data users		
13:30 – 15:00	**Session 4 – Identification of and consultations with census data users** - Presentation by CONSULTANT/Resource person - Presentations by countries - General Discussion	CONSULTANT/Resource Person/ Countries	
15:00 – 15:30	*Coffee break*		
15:30 – 17:00	**Session 4 – Identification of and consultations with census data users (Contd.)**	CONSULTANT/Resource Person Countries	
Tuesday September 15, 2010			
9:00 – 10:30	**Session 5 – Determination of the scope and form of census data dissemination** - Presentation by CONSULTANT/Resource person - Presentation by countries - General Discussion	CONSULTANT/Resource Person Countries	
10:30 – 11:00	*Coffee break*		
11:00 – 12:30	**Session 5 – Determination of the scope and form of census data dissemination (Contd.)**	CONSULTANT/Resource Person/ Countries	
12:30 – 13:30	*Lunch*		
	Use of technological tools in the dissemination of census data Objective: Present and discuss the use of various technological tools in the dissemination of census data		
13:30 – 15:00	**Session 6 – Technological tools for publishing** - Presentation by CONSULTANT/Resource Person - Presentation by countries	CONSULTANT Resource Person/ Countries	

Time	Topic	Responsibility	Document
	- General Discussion		
15:00 – 15:30	*Coffee break*		
15:30 – 17:00	**Session 6 – Technological tools for publishing (Contd.)**	CONSULTANT/Resource Person/ Countries	
Wednesday September 16, 2010			
09:00 – 10:30	**Session 7 – Use of GIS, Web-based mapping and Geo-portals** - Presentation by CONSULTANT/Resource Person - Presentation by countries - General Discussion	CONSULTANT/Resource Person Countries	
10:30 – 11:00	*Coffee break*		
11:00 – 12:30	**Session 7 – Use of GIS, Web-based mapping and Geo-portals (Contd.)**	CONSULTANT/Resource Person Countries	
12:30 – 13:30	*Lunch*		
	Spatial analysis of census data		
13:30 – 15:00	**Session 8 – Spatial analysis of census data** - Presentation by CONSULTANT/Resource Person - Presentation by countries - General Discussion	CONSULTANT/Resource Person Countries	
15:00 – 15:30	*Coffee break*		
15:30 – 17:00	**Session 8 – Spatial analysis of census data (Contd.)**	CONSULTANT/Resource Person Countries	
Thursday September 17, 2010			
	Issues of Census Data Accessibility, Confidentiality, Copyright, and Meta-Data Objective: Present and discuss management of data accessibility, confidentiality of individual data and copyright issues; importance of metadata in dissemination of census data.		
9:00 – 10:30	**Session 9- Data accessibility, confidentiality and copyright** - Presentation by CONSULTANT/Resource Person - Presentation by countries - General Discussion	CONSULTANT/Resource Person Countries	
10:30 – 11:00	*Coffee Break*		
11:00 – 12:30	**Session 10 – Role of Metadata in Census Data Dissemination** - Presentation by CONSULTANT/Resource Person - Presentation by countries - General Discussion	CONSULTANT/Resource Person/ Countries	
12:30 – 13:30	*Lunch*		
13:30 – 15:00	**Session 11 – Recommendations for an international guidelines on effective dissemination and utilization of census data** - Presentation by CONSULTANT/Consultant	Consultant	
15:00 – 15:30	*Coffee Break*		
	Closing of Seminar		
15:30 – 16:00	**Session 12 - Closing**	KNBS, UNSD	

Annex II: List of participants

No	Country/Organization Name	Contact Person Information
1	Burkina Faso	Mr. Kano HAMISSOU Directeur de la Demographie INSD
2	Burundi	Mr. Noe NDUWABIKE Chief, Division of Census Data Processing and Analysis Burundi Bureau of Statistics
3	Cameroon	Mr. Paul Roger LIBITE Chef de Département des Statistiques Démographiques et Sociales Institut National de la Statistique
4	Cape Verde	Ms. Leonilde Antonieta T. de LIMA GIS Specialist Instituto Nacional de Estatistica
5	Congo	Mr. Léonard NABASSEMBA Chef de Service des Methodes et Programme Informatique Centre National de la Statistique et des Etudes Economiques
6	Egypt	Ms. Salwa EL SHAZLI Marketing Manager Central Agency for Public Mobilization and Statistics
7	Ethiopia	Mr. Akalework BEZU Population Expert Central Statistical Agency
8	Gambia	Mr. Wally Hadre NDOW Statistician Gambia Bureau of Statistics
9	Ghana	Mr. Issac NYARKO Assistant Statistician Ghana Statistical Service
10	Guinea Bissau	Mr. Bessa Vitor DA SILVA Coordinateur do Projet du Recensement Générale de la Population e Habitation Instituto Nacional De Estatistica (INE)
11	Kenya	Mr. Anthony Kilele Director General Kenya National Bureau of Statistics (KNBS)
12		Mr. Collins Opiyo Director, Population and Social Statistics Kenya National Bureau of Statistics (KNBS)
13		Mr. Cleophas Kiio Director, Information Communication and Technology Kenya National Bureau of Statistics (KNBS)
14		Mr. Chris Omolo Senior Manager, Population Statistics Kenya National Bureau of Statistics (KNBS)
15		Mr. Mutua Kakinyi

No	Country/Organization Name	Contact Person Information
16		Senior Manager, Data Processing Kenya National Bureau of Statistics (KNBS) Ms. Katunge Kiilu Manager, Communications Kenya National Bureau of Statistics (KNBS)
17		Mr. Musyoka Michael Manager, Population Statistics Kenya National Bureau of Statistics (KNBS)
18		Ms. Emma A. Odhiambo Manager, Cartography Kenya National Bureau of Statistics (KNBS)
19		Ms. Lucy Kwendo Communications Consultant Kenya National Bureau of Statistics (KNBS)
20		Mr. George Kichamu Manager, Communication and Public Education National Coordinating Agency for Population and Development (NCAPD)
21		Mr. Ogola Samuel Senior Programme Officer National Coordinating Agency for Population and Development (NCAPD)
22		Mr. Otieno Alfred T. A. Lecturer, Population Studies and Research Institute (PSRI), University of Nairobi
23		Mr. Obonyo Ben Jarabi Lecturer, Population Studies and Research Institute (PSRI), University of Nairobi
24	Lesotho	Mr. Potjo TSOENE Senior Cartographer Lesotho Bureau of Statistics
25	Liberia	Mr. Johnson Quiah KEI Deputy Director General, Information Liberia Institute of Statistics and Geo-Information Services
26		Mr. Thomas L. DAVIS Director, Geographic Information Services Liberia Institute of Statistics and Geo-Information Services
27	Malawi	Mr. Macleod Wongani MWALE Principal Statistician National Statistical Office
28	Mali	Mr. Traore VINIMA Chef setion recensement et enquêtes démographiques INSTAT

No	Country/Organization Name	Contact Person Information
29	Mauritius	Ms. Melanie Vladinie LUCHMUN Acting Statistician, Housing and Population Census Unit Central Statistics Office
30	Morocco	Mr. Abdelhaq EL ARABI Engineer in Statistics High Commission for Planning
31	Mozambique	Mr. Armindo DA SILVA Cartographer National Statistics Office
32	Namibia	Ms. Ottilie Mwaalele MWAZI Head of GIS/Cartography National Planning Commission
33		Mr. Jackie NOABEB Senior Analyst Programmer National Planning Commission
34	Nigeria	Mr. Isiaka Alada YAHAYA Deputy Director, Public Affairs National Population Commission of Nigeria
35		Mr. Elisha FAFUNMI Head, Research and Policy Analysis National Bureau of Statistics
36	Rwanda	Mr. Mugisha Roger MUSONERWA Poverty observatory and monitoring and evaluation of EDPRS and MDG indicators National Institute of Statistics of Rwanda (NISR)
37	Senegal	Mr. Abdoulaye TALL Head of Division for Census and Demographic Statistics Agence Nationale de la Statistique et de la Démographie (ANSD)
38	South Africa	Mr. Motale Joshua PHIRWA Executive Manager, Statistical Publication Services Statistics South Africa
39		Ms. Sharthi LALDAPARSAD Executive Director, Integrated Research and Analysis Statistics South Africa
40	Swaziland	Ms. Thembi Olga VILANE Statistician Central Statistical Office
41	Tanzania	Mr. Irenius Joseph RUYOBYA Coordinator, Population and Housing Census Activities National Bureau of Statistics
42	Tunisia	Ms. Samira OUADDAY GIS Project Manager National Statistics Institute

No	Country/Organization Name	Contact Person Information
43	Uganda	Mr. Andrew MUKULU Director, Population and Social Statistics Uganda Bureau of Statistics
44		Mr. Mark KAJUBI Senior Statistician Uganda Bureau of Statistics
45	Zambia	Ms. Etambuyu LUKONGA Documentation Officer, Acting Head of Dissemination Central Statistical Office
46	Zimbabwe	Mr. Nicholas JONGA Statistician Zimstat, Central Statistical Office
47	The African Capacity Building Foundation (ACBF)	Mr. Robert NANTCHOUANG Knowledge Management Expert The African Capacity Building Foundation (ACBF) Harare, Zimbabwe
48	African Development Bank (AfDB)	Mr. Maurice MUBILA Chief Statistician African Development Bank Tunis, Tunisia
49	UNFPA	Mr. Richmond TIEMOKO Technical Advisor on Population and Development UNFPA Africa Regional Office Johannesburg, South Africa
50		Mr. Boubacar SOW Regional Technical Adviser UNFPA Africa Regional Office Dakar, Senegal
51		Mr. Alexander ILYIN Deputy Representative UNFPA Country Office Kenya Nairobi, Kenya
52	UNSD	Mr. Yacob ZEWOLDI Acting Chief, Demographic Statistics Section United Nations Statistics Division
53		Mr. Amor LAARIBI Statistician, Demographic Statistics Section United Nations Statistics Division
54		Mr. Seiffe TADESSE Statistician, Demographic Statistics Section United Nations Statistics Division

No	Country/Organization Name	Contact Person Information
55	UNSD Resource Person	Mr. Eliahu BEN-MOSHE Consultant
56		Mr. Roberto BIANCHINI Research Associate Population, Health and GIS Section Interuniversity Research Centre for Sustainable Development (CIRPS) Sapienza University of Rome