

The 2000 Round of Censuses in Africa: Achievements and Challenges.

Jason O. Onsembe¹ and James P.M. Ntozi²

Summary

During the last three decades, population and housing censuses have been the most critical source of data for policy decisions and for formulation, monitoring and evaluation of national and sectoral development programmes in Africa. This was achieved through active participation of many countries in the decennial census programmes, commonly known as census rounds. The 2000 census round can be described successful in most cases. However, a number of countries experienced implementation problems and challenges, including inadequate funding and weak technical expertise in national statistics offices. To ensure successful implementation of the 2010 census round, it will be necessary to develop strategies that would address the identified problems of 2000 round. For instance, African governments and the international community should commit adequate resources to statistical programmes, including censuses and enhance capacities of the national statistics offices, especially through formal training of staff and provision of the equipment and materials.

Key Words

Census round and census programme.

Résumé

Au cours des trois dernières décennies, les recensements de la population et de l'habitat ont été la source essentielle de données pour les prises de décision politique ainsi que l'élaboration, le suivi et l'évaluation des programmes nationaux et sectoriels de développement en Afrique. Ceci a été réalisé grâce à la participation active de nombreux pays aux programmes de recensements réalisés tous les 10 ans, communément appelés cycles de recensements. La phase 2000 du recensement a été réalisée avec succès dans la plupart des cas. Cependant un certain nombre de pays ont rencontré des problèmes et des défis de mise en œuvre, y compris des financements insuffisants et une faible expertise technique au niveau des instituts nationaux de statistique. Afin de garantir la réussite de la mise en œuvre du cycle des recensements de 2010, il est nécessaire de développer des stratégies tenant compte

1: Adviser in Population Data, UNFPA/CST, Addis Ababa, Ethiopia

2: Professor, Department of Population Studies, Institute of Statistics and Applied Economics, Makerere University, P.O. Box 7062, Kampala, Uganda.

des problèmes identifiés durant le cycle de 2000. Par exemple, les gouvernements Africains et la communauté internationale devraient allouer des ressources suffisantes aux programmes statistiques, y compris les recensements, et renforcer les capacités des instituts nationaux de statistique, en particulier par des formation du personnel et la fourniture d'équipements et de matériels.

Mots clés

Cycles de recensements et programme de recensements.

I. Introduction

Census taking in sub-Saharan Africa (SSA) can be traced back almost two centuries in early nineteenth century. Lorimer (1968) reported that sporadic counts of total population in certain trading centres and special colonies by colonial powers took place. For example, the British conducted a series of annual enumerations of Sierra Leone Crown Colony from 1833 to 1851 to check on the alleged kidnapping and re-enslavement of Africans. In the early period of twentieth century, census taking in colonial Africa was mostly head counting where heads of households used to assemble at administrative headquarters and to be counted for the purpose of estimating people eligible for hut tax. This happened in the former British East Africa (now Kenya and Uganda), former British West Africa (now Ghana, Sierra Leone and Nigeria) and the Belgian colonies of Burundi and Rwanda.

In the late period of colonialism, modern censuses (those based on modern procedures/rules) were introduced to SSA for planning purposes. The SAA countries affected included the British colonies of Uganda in 1948 and 1959; Kenya in 1948 and 1962; Tanganyika in 1957; Ghana in 1948; Nigeria in 1952-53; Southern Rhodesia (now Zimbabwe) in 1948, and Northern Rhodesia (now Zambia) in 1950-51 and 1963. In the French speaking Africa sample censuses were conducted in Guinea in 1954-55, the Congo (Congo Brazzaville) in 1955-56, Rwanda-Burundi in 1952 and Congo Leopoldville (now the Democratic Republic of Congo) in 1955-57.

Later, in the post-colonial period, the modern censuses, which required substantial technical and financial resources, were supported by the multilateral and bilateral aid agencies. For instance, the international community mostly through UNFPA almost wholly supported the African Census Programme (ACP) in 1960s and 1970s. Secondly, with support of UNFPA and other development partners a section of the Statistics Division of the Economic Commission for Africa (ECA) known as the Region-

al Advisory Services in Demographic Statistics provided technical support to African countries to conduct the censuses of population and housing in the 1980 and 1990 rounds of censuses. These census programmes provided demographic and socio-economic information that became the main reference materials for evidence based development planning in the region.

However, the census programmes encountered a number of problems. The problems included limited technical capacities in statistical offices, poor infrastructure especially lack of adequate offices and equipment, technology in terms of computers being at the formative stages, limited support from some African governments, inadequate legal framework to support and protect the census taking, largely illiterate and ignorant population and existence of anti-census taking taboos.

With the restructuring of ECA in mid 1990s, UNFPA sub-regional Country Support Teams (CST) based in Addis Ababa, Dakar and Harare assumed the full responsibility of providing technical and advisory services to the region in the 2000 round of censuses which ended in 2004 and ushered in the 2010 round.

The purpose of this paper is to present the experience of the 2000 census round of censuses in SSA. Specifically, the objectives of the paper are to document the achievements of the 2000 census round; identify challenges and constraints of the programme, particularly as they contributed to availability of less data; give the current population data needs in the region, especially in response to the emerging issues; and suggest strategies for conducting better censuses in the 2010 round.

2. 2000 Round of Censuses in Africa

The 2000 census round kicked off in 1995. Before that time, the United Nations Statistical Commission and the Economic and Social Council (ECOSOC), in resolution 199/57 recommended that all member states carry out population and housing census during the period 1995 - 2004. Table 1 shows that 36 out of 51 SSA countries participated in the 2000 round of censuses. The 15 countries that did not participate in the census programme were Angola, Burundi, Cameroon, Chad, Congo Democratic Republic, Djibouti, Eritrea, Ethiopia, Liberia, Madagascar, Nigeria, Sierra Leone, Somalia, Sudan and Togo. From the list, it can be noted that two thirds of the countries were engaged in conflicts and hence were not stable enough to plan and execute a census programme.

Most of the funding of the 2000 round was from the development partners. A selected list of 18 SSA countries that received assistance from various multilateral and bilateral donors can be seen in Table 2. As expected, UNFPA was involved in the censuses of all the countries that participated. UNFPA Country Support Teams (CST) in Africa provided the technical support to NSOs and other government departments in SSA that planned and conducted the censuses.

Table 1: Census dates for countries in Africa: 1965 to 2014

Country or area	1970 Round (1965-74)	1980 Round (1975-84)	1990 Round (1985-94)	2000 Round (1995-2004)	2010 Round (2005-2014)
Algeria	4/4/66	1/12/77	4/20/87	6/25/98	--
Angola	12/15/70	--	--	--	2007 [§]
Benin	--	3/20-30/79 ^E	2/15/92	2/11/2002	2012 [§]
Botswana	8/31/71	8/12-26/81	8/14-23/91	8/17-26/01	2011 ^E
Burkina Faso	--	12/1-7/75 ^E	12/10-20/85	12/10-20/96	--
Burundi	--	8/15-16/79 ^E	8/15-16/90	--	2005 [§]
Cameroon	--	4/9/76 ^E	4/14-28/87	--	2007 [§]
Cape Verde	12/15/70	6/1-2/80	6/23/90	6/16-30/00	2010 ^E
Central African Republic	--	12/8-22/75 ^E	12/8/88	12/8/2003	2013 [§]
Chad	--	--	4/15/93 ^E	--	4/05 [§]
Comoros	7/66-9/66	9/15/80	9/15/91	9/03	2013 [§]
Congo (Republic of the)	2/7/74 ^E	12/22/84	--	6/6-7/30/96 7/00 ^Δ	-- --
Congo (Democratic Republic of)	7/1/70 ^Δ 7/1/74 ^Δ	7/1/84	--	--	2005 ^{Δ §}
Cote d'Ivoire	--	4/30/75 ^E	3/1/88	11/21/98	2008 ^E
Djibouti	1970-71 ^Δ 3/17/67	1/3/83 ^E	--	--	--
Egypt	5/30/66 ^{§□}	11/22-23/76	11/17-18/86	11/18-19/96	2006 ^E
Equatorial Guinea	9-10/71 ^Δ	7/4-17/83	9/9-10/5/94	2/02	--
Eritrea	--	5/9/84 ^E (by Ethiopia)	--	12/04 [§]	2014 [§]
Ethiopia	--	5/9/84 ^E	10/11-27/94	--	2007 [§]
Gabon	6/1/69-6/70	8/1-31/80	7/1-31/93	12/31/2003	2014 [§]
Gambia, The	4/21/73	4/15/83	4/15/93	4/15/2003	2013 [§]
Ghana	3/1/70	3/11/84	--	3/26/00	2010 [§]
Guinea	5/19-27/67 ^Δ 12/31/72 ^Δ	9/28/77 ^Δ 2/4-17/83 ^E	--	12/1-15/96	--
Guinea-Bissau	12/15/70	4/16-30/79	12/1/91	12/01	2011 ^E
Kenya	8/24-25/69	8/25/79	8/24/89	8/24/99	2009 ^E
Lesotho	4/14-24/66	4/12/76	4/14/86	4/14/96 5/13-31/01	--
Liberia	2/1/74	2/1-14/84	--	10/03 [§]	--
Libya	7/31/73	7/31/84	--	8/95	--
Madagascar	--	1/26-8/18/75 ^E	8/1-19/93	--	2005 [§]
Malawi	8/9/66 ^E	9/20/77	9/1-21/87	9/1-21/98	9/08 [§]
Mali	--	12/76 ^E	4/1-30/87	4/17/98	--

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Country or area	1970 Round (1965-74)	1980 Round (1975-84)	1990 Round (1985-94)	2000 Round (1995-2004)	2010 Round (2005-2014)
Mauritania	--	12/12/76-3/77 ^E	4/5-20/88	11/00-3/01	--
Mauritius	6/30/72	7/2-3/83	7/1/90	7/2-3/00	2010 ^P
Mayotte	9/1-30/66	7/1/78	8/5/85 8/9/91	8/5/97	--
Morocco	7/20/71	9/3-21/82	9/4/94	9/04	--
Mozambique	12/15/70	8/1/80	--	8/1-15/97	2007 ^S
Namibia	5/6/70	8/26/81	10/21/91	8/27-9/11/01	2011 ^P
Niger	--	10/7-11/6/77 ^E	5/10-24/88	5/20-6/18/01	2011 ^S
Nigeria	--	--	11/27-29/91		2005 ^S
Reunion	10/16/74	3/9/82	3/15/90	3/8/99	--
Rwanda	--	8/15-16/78 ^E	8/15-16/91	8/16-30/02	2012 ^S
Saint Helena	07/24/66	10/31/76	2/22/87	3/8/98	--
Sao Tome and Principe	9/30/70	8/15/81	8/4/91	8/25-9/8/01	2011 ^S
Senegal	--	4/16/76 ^E	5/27/88	12/8-22/02	2012 ^S
Seychelles	5/5/71	8/1/77	8/17/87 8/26/94	8/22-26/02	--
Sierra Leone	12/8/74	--	12/15/85	12/04 ^P	2014 ^S
Somalia	--	2/7-20/75 ^E	11/86-2/87	--	--
South Africa	5/6/70	5/6/80	3/5/85 3/7/91	10/09/-10/10/96 10/9-10/01	2006 ^S 2011 ^S
Sudan	4/3/73	2/1/83	4/15/93	2003 ^S	--
Swaziland	5/24/66	8/25/76	8/25/86	5/12-12/97	--
Tanzania	8/26/67	8/26/78	8/28/88	8/25/02	2012 ^S
Togo	3/1-4/30/70 ^E	11/22/81	--	--	11/05 ^S
Tunisia	5/3/66	5/8/75	4/20/94	4/28/04	2014 ^S
Uganda	8/18/69 11/74	1/18/80	1/12/91	9/13/02	2012 ^S
Western Sahara	12/31/70 1974	9/3-21/82 (by Morocco)	9/4/94 (by Morocco)	--	--
Zambia	8/22-30/69 8/26-9/6/74 ^{SC}	7/25/80	8/20/90	10/25/00	2010 ^P
Zimbabwe	4/21-5/11/69	8/18/82	8/18/92	8/18/02	2012 ^S

-- No census listed in this round.

date: date Annual counts between dates

^A Administrative census.

^S Scheduled; not yet taken or known if taken.

^F First full modern census taken.

^P Projected based on pattern of census dates.

^{SC} Sample census.

^R National registry

Table 2: Multilateral and bilateral agencies providing assistance to the 2000 round of census and large scale surveys (for selected countries)

Country	Census Year	Local sources	Agencies/countries participating
Benin	2002	Government	UNFPA, World bank, UNICEF, Switzerland,
Cameroon	2003	Government	UNFPA, World Bank, PTTE*
Cape Verde	June 2003	Government	UNFPA, French Cooperation, European Union, UNICEF Portugal CESD**
CAR	December 2003	Government	UNFPA, Japan, European Union, UNICEF
Comoros	September 2003	Government	UNFPA, WHO, UNDP, European Union, UNICEF
Cote D'Ivoire	November 1998	Government	UNFPA, World bank, France
Gambia	April 2003	Government	UNFPA, World bank
Ghana	March 2002	Government	UNFPA, DFID, USAID, JICA, China
Kenya	August 1999	Government	UNFPA, DFID, USAID, UNDP
Mali	April 1998	Government	UNFPA, UNICEF, European Union, World Bank, Canada
Mozambique	August 1997	Government	UNFPA, Netherlands, Sweden, Denmark, European Union, USA and Norway
Namibia	September 2001	Government	IDA, UNFPA, Spain, Britain and France
Niger	June 2001	Government	UNFPA, World Bank, European Union, UNDP, UNICEF
Rwanda	August 2002	Government	UNFPA, European Union, DFID
South Africa	October 2001	Government	UNFPA, SIDA, USAID
Tanzania	August 2002	Government	UNFPA, DFID, SIDA, Japan, UNDP, USAID
Uganda	September 2002	Government	UNFPA, DFID, NORAD, Japan, European Union
Zambia	October 2000	Government	UNFPA, DFID, CIDA, Japan, Netherlands, UNHCR, Finland Germany

Source : Onsembe and Hie (2004)

** CESD = Center European la statistique et Développement

* PPTTE= Pays Pauvre Très Endettes

CAR = The Central African Republic

3. Achievements

In order to appreciate the achievements of the 2000 round of censuses, it is important to focus the achievements on whether the census programme satisfied the data needs of SSA. The data is needed for sub-national level decision making, monitoring of indicators of poverty eradication goals, measuring progress towards Millennium Development Goals (MDGs), and estimating demographic change.

3.1 Data requirements for sub-national level decision-making processes

Many countries in SSA have been decentralized to promote good governance and

give power and decision making to the communities by devolving the political and administrative power from the centre to the lower government units. This decentralization policy requires reliable data detailed to the lowest administrative unit for planning and decision-making, which is hard to get without complete census enumeration. The 2000 census programme, starting at the time the decentralization policy in SSA was taking root, collected most of the data required for the purpose and it is already being used in many countries with decentralized government structure such as Uganda and Tanzania. Another use of the population census data in promoting decentralization policies has been to help in making requests for assistance from international community by local government units.

3.2 Monitoring poverty reduction programmes

Poverty reduction programmes have been implemented in many SSA countries for sometime now. Implementation of these programmes needs to be monitored to know the progress of implementation and how much has been achieved. As can be seen in Table 3 giving an example of Tanzania, 14 out of 19 indicators (74%) of poverty reduction programme in the country were provided by the 2002 census. Similarly, the census programmes of different SSA countries contributed to the poverty reduction programme. This is a huge achievement for the 2000 census round in the region.

Table 3: Sources of data for monitoring poverty indicators in Tanzania

Type of poverty/Indicators	Source of data
Income poverty	
Headcount ratio	Labor Force survey
Food poverty line	Household Budget survey
Proportion of working age population not currently employed	Population and Housing Census
Human capabilities	
Girl/boy/ratior in primary education	Population and Housing Census
Girl/boy/ratior in secondary education	Population and Housing Census
Literacy rate of population aged 15+	Population and Housing Census
Net primary enrollment	Population and Housing Census
Gross primary enrollment	Population and Housing Census
Prevalence of ARI	MOH Statistics
Population with access to safe water	Population and Housing Census
Infant mortality rate	Population and Housing Census
Under-five mortality rate	Population and Housing Census
Life expectancy	Population and Housing Census
Children under five immunized	MOH Statistics
Births attended by skilled health worker	MOH Statistics/Demographic and Health Surveys

Extreme vulnerability	
Proportion of orphaned children	Population and Housing Census
Proportion of child-headed households	Population and Housing Census
Proportion of children in labor force not going to school	Population and Housing Census
Proportion of elderly living in a household where no one is economical active	Population and Housing Census

3.3 Measuring achievement of MDGs indicators

The United Nations set some 8 goals to be used as targets for socio-economic development by 2015 and called them Millennium Development Goals (MDGs). The measurement of the achievement of these national and international development goals/targets depends on availability of reliable data. Table 4 shows an example of Mozambique with the MDGs and indicators to measure the achievement of related targets in the country using the census data. The table indicates that the 1997 census in the country was the main source of data for seven out of eight MDGs, with exception of goal number 1 on poverty and hunger. The experience in the region indicates that census data is required for events or characteristics, which, because of their rarity, cannot be captured through sample surveys. For example, information on maternal and adult mortality are better collected from censuses than sample surveys. The use of the census data in Mozambique for MDG tracking has been repeated in the whole region.

Table 4: Sources of MDGs Indicators for Mozambique:

Goal	Indicators
Goal 2: Achieve universal primary education	<u>Number 8:</u> Literacy rate of 15 –24 year olds
Goal 3: Promote gender equality and empower women	<u>Number 9:</u> Ratio of girls to boys in primary, secondary and tertiary education <u>Number 10:</u> Ratio of literate women to men aged 15 – 24 years <u>Number 11:</u> Share of women in wage employment in the non-agricultural sector
Goal 4: Reduce child mortality	<u>Number 13:</u> Under-five mortality <u>Number 14:</u> Infant mortality rate
Goal 5: Improve maternal health	<u>Number 16:</u> Maternal mortality ratio
Goal 6: Combat HIV/AIDS, malaria and other diseases	<u>Number 20:</u> Ratio of school attendance of orphans to school attendance of non-orphans aged 10-14 years
Goal 7: Ensure environmental sustainability	<u>Number 29:</u> Proportion of population using solid fuels <u>Number 30:</u> Proportion of population with sustainable access to an improved water source, urban and rural <u>Number 31:</u> Proportion of population with access improved sanitation, urban and rural
Goal 8: Develop a global partnership for development	<u>Number 45:</u> Unemployment rate of 15-24 year olds, male, female and total

3.4 Measuring the achievement of indicators of population programmes

Since 1994 International Conference on Population and Development (ICPD) held in Cairo, almost all SSA countries have population policies, which are implemented through various population programmes. These programmes have targets to be achieved at specified dates. The 2000 census round data was used to estimate different population measures, such as fertility, mortality, migration, marriage and growth rates that are compared with targets of population programmes. Several evaluations have been conducted to measure the progress of ICPD nationally and regionally and the indicators computed from 2000 census data have been used. Hence, various population programmes in the region have been tracked, discarded or improved using indicators of the 2000 censuses. For example, in 2004, ten years after ICPD, UNFPA and ECA undertook an extensive review of ICPD + 10, where data from the 2000 round of censuses was extensively used to determine the progress made in the African region for a number of areas/issues including: adopting and implementing reproductive health approach, strengthening efforts to improve gender equality and equity, addressing adolescent reproductive health, and promoting integration of population dynamics and trends in development planning.

3.5 Meeting the demand of other emerging issues of socio-economic concerns in SSA

At present there are many issues of great concern globally, especially in SSA. These include ageing, migration, religion, ethnicity and race. Census data in SSA has been used to inform decision makers, planners and programme managers about these issues.

3.6 Other achievements of the 2000 census programme.

Besides meeting the data needs of SSA, the 2000 census round has benefited the region in several ways. First, the United Nations Statistics Division (UNSD) has helped create a strong culture of census taking by making available necessary manuals and handbooks. For example, the publication of the Principles and Recommendations for Population and Housing Censuses, Revision 1 in 1998, provided countries with guidance on the use of new developments and techniques, as well as accumulated knowledge and experiences of census operations. The majority of SSA countries have extensively used the document as a reference material for census planning and implementation.

In the 2000 round of censuses, more SSA countries than before used cartographic maps in their censuses and found them to be useful tools. The census cartography should sufficiently delineate the country into small, well-identified and homogeneously sized enumeration areas, which enhances the role of the census in promoting development of an integrated national statistical system. Over a period of time, cartographic base maps will also contribute to significant reduction of costs by sharing census cartography with other data collection activities such as agriculture census and national master sample for integrated programme of household surveys. In addition, a cartographic base will address the issue of small area statistics for which there is an ever-growing demand.

Another achievement was some use of Geographical Information System (GIS) technology in the 2000 round of censuses in sub-Saharan African countries, such as Uganda 2002, South Africa 2001, Namibia 2001, Tanzania 2002, Rwanda 2002 and Sierra Leone 2004. Although the use of GIS technology was limited in 2000 round of censuses, the fact that it was used at all was a great improvement since the censuses in the region before did not use it at all. GIS has advantages that sub-Saharan African countries have to benefit from, including reduced duration for enumeration areas (EA) demarcation, better control of EA demarcation, and less expensive and less time consuming EA demarcation exercises.

The fourth achievement of 2000 round of censuses in SSA was capacity building. During the 2000 Round of Census, a number of international community agencies including DFID, USAID, NORAD, UNICEF, WHO, UNDP, SIDA, JICA, DANIDA, the World Bank, European Union, CIDA, French Cooperation, Development Cooperation of Ireland, AusAID, Netherlands Interdisciplinary Demographic Institute, etc., assisted different countries in SSA in capacity building within the national statistical offices by providing necessary equipment and required technical support. With regard to staff capacity development, a number of approaches were deployed including undertaking technical backstopping missions at critical stages of census planning and implementation, organizing technical workshops for nationals, imparting skills through the on-job-training, and conducting formal training programmes. For example, for the Kenya census of 1999 and the 2002 Tanzania census, several senior professionals from National Bureaux of Statistics were sent to US Bureau of Census for training in data processing and analysis.

Another achievement was about the census products. For most censuses held in the 2000 round, statistical tables were produced within a relatively short time, within 12 months after enumeration as compared to the practice in the past. Analytical re-

ports, illustrated by GIS output and other new thematic areas, were available within two years of enumeration. User-friendly databases were also available and accessible to the general public later.

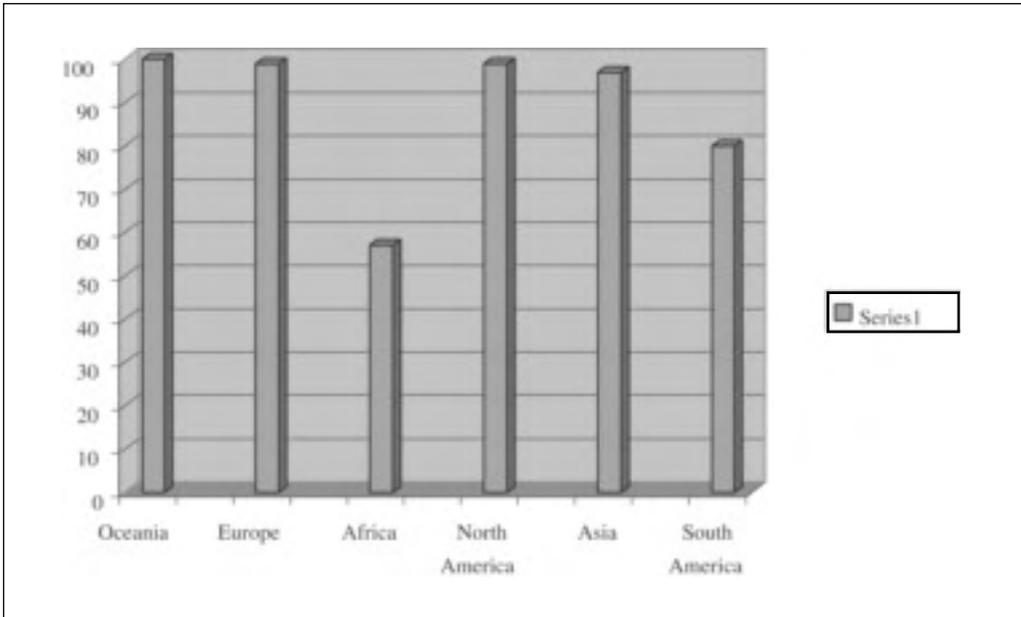
4. Limitations and Constraints of 2000 Round of Censuses in SSA

Although many sub-Saharan African countries successfully participated in the 2000 round of censuses, there were some countries, which, for one reason or another, did not participate. Furthermore, not all countries, which participated in the census, were able to carry out the exercise to its logical conclusion, namely; producing and disseminating census results. The planning and implementation of the 2000 round was therefore not without a number of challenges and constraints. These include: inadequate participation; weak organizational and managerial skills at NSOs; weak technical capacities; lack of sufficient government commitment; inadequate and untimely funding; non-conducive political environment and lack of gender data.

4.1 Inadequate participation in the census programme

The participation of sub-Saharan Africa in the 2000 round of censuses was the lowest in the world. Table 1 above shows that the participation of sub-Saharan Africa in terms of its population was only 57% of the total population in the region, much lower than the overall world participation, which was a huge 91%. Compared to other world regions: Oceania – 100%, Europe and North America – 99%, Asia – 97% and South America – 80%, the participation of sub-Saharan Africa was the lowest (Zewodi 2002). The wide difference between sub-Saharan Africa and other regions is clearly demonstrated in Figure 1.

Figure 1: Percentage of Population that participated in the 2000 Round of Census by Various Regions of the World



4.2 Weak organizational and managerial skills

Most censuses were planned and conducted by national statistics offices (NSO). These statistics offices (or other government departments) charged with the responsibility of planning and conducting censuses faced a number of challenges and constraints. The first constraint was lack of comprehensive programmes on the census. Some of the NSOs and departments charged with the responsibility of conducting censuses on behalf of the NSO did not plan the organization of the census well. For instance, there were no clear guidelines for implementation, leading to piecemeal activities with no clear vision for the whole process. There was a tendency of planning activities up to the enumeration day and excluding the important post-enumeration activities including data processing, analysis, report writing and dissemination. In other cases, censuses were only undertaken at the instigation of development partners when governments were not committed to the exercise.

Secondly, some countries lacked institutional capacity in terms of equipment and staffing to conduct the census. Since some NSOs do not maintain cartographic section during the inter-censal period, they found it difficult to revive the cartographic activities close to the census date and do a good job.

Thirdly, there are structural difficulties of census offices. A number of African countries do not consider census activities as an integral part of the national statistical system, but as a separate chain of operations. This had the effect of negatively affecting the coordination of the census work and reducing the commitment of staff of NSOs to the exercise. For instance, in a few countries such as Kenya, South Africa and Senegal where census cartography sections were permanent units within national statistics offices, mapping activities were completed on time leading to the enumeration to be done on schedule. In contrast, countries such as Tanzania, Uganda and Ethiopia which set up cartographic sections rather late could not complete EA demarcation in time and had to postpone enumeration dates from 1998 to 2002, 2001 to 2002, and from 2004 to 2007, respectively.

4.3 Inadequate funding

Censuses are the largest, most elaborate and costly data collection activity that any country can undertake, and there is a tendency for the costs to continue rising. In many countries, census expenditures were in excess of 10-15 per cent of the budget of Statistical Offices over an entire decade. For example, estimated census costs for the censuses of Burundi, Uganda, CAR, Ghana were US\$ 3.5 millions, US\$ 17 millions, US\$ 3.5 millions and US\$ 21, respectively. These costs excluded substantial indirect costs governments spent on paying salaries of permanent employees, use of government buildings and telephones, which are usually paid centrally and are difficult to separate for the census. Outside South Africa, these expenditures can not be afforded by sub-Saharan countries.

In sub-Sahara Africa, both national governments and the donor community provided census funding but the contributions did not satisfy the demand mainly due to a number of reasons including: increasing costs of censuses as a result of both inflation and sophistication of methodologies, rapid population growth, limited national budgets and waning international support. For example, due to rapid population growth, the recently completed census in Nigeria of 2006 is estimated to have cost more than US\$ 300 million, compared to US\$ 88 used on the 1991 census.

Technical co-operation and assistance from international agencies and the donor community played a major role in providing funds for the 2000 round. With census donor fatigue, it is not guaranteed that this massive support from development partners will continue. Recent unsuccessful experience of fund raising for the UNFPA CST regional survey shows that funding the next round of censuses may be a problem.

4.4 Non-conductive political environment

Weak political commitment and lack of appreciation of the usefulness of census data has contributed to the apparent lack of support by the national government. For example, the Mozambique Government only became actively aware of the importance of the census after the devastating floods that engulfed the country in 2000. Although there are general claims that governments do support censuses, actions indicate otherwise. One way of measuring such support is through assessing census budget allocation. It has been observed that in many countries in the region budget support to the census programme is quite low compared to other national exercises, such as voter registration and parliamentary elections. For instance in Uganda, while the government contribution to the budget of the census exercise was less than US\$15 million, the recent general elections consumed several times this figure.

4.5 Weak technical expertise in NSOs

Technical assistance from multilateral donors led by UNFPA and bilateral donors, played a major role in the success of censuses in sub-Saharan Africa in the last three to four decades. For instance, recent experience has shown that technical involvement of regional advisers (UNFPA/CST) has contributed effectively to the development of national technical expertise through on-the-job training in census organization, cartography, data processing, sampling and advocacy. After providing such technical assistance for a long time, the donors expect the African countries to be self-sufficient. However, given the large staff turnover over in most NSOs, there is continuing need for such assistance even for the near future.

4.6 Lack of data for gender indicators

Managing gender issues is very critical to the development of sub-Saharan Africa. To do it effectively and efficiently, indicators of gender equality and equity have been developed and they need appropriate data for measuring them. The data from the 2000 round of censuses does not satisfy most of the needs of indicators on gender. Except for female illiteracy rate and ratio of girls to boys in primary and secondary schools, other indicators of progress on gender equality and equity, namely HIV/AIDS prevalence among the female population, gender empowerment, seats held by females in national Parliaments, and gender-based violence could not be measured from the 2000 round of census data.

5. Conclusions and Proposed Strategies for 2010 Census Round

As indicated in earlier sections of this paper, there were commendable achievements in the 2000 census round, which ensured adequate availability of demographic and socio-economic data in a number of countries. On the other hand, there were challenges and constraints, which imply that there is room for improvement. With this wealth of experience, organizers and planners of the 2010 census programmes should use strategies that should build on the strength and minimize the challenges and constraints of the 2000 census round. The strategies should address the following:

5.1 The need for government commitment to census programmes

It is important that census organizers should get commitment of government before starting to plan a census programme. Although most governments appreciate the importance of up-to-date and reliable census data in the overall development planning, they lack serious commitment. Both political and civil service leaders at all levels of government must be consulted and educated on the benefits of census data to their work through an advocacy programme and their commitment secured. Census legal frameworks in form of statistical laws must be strengthened and updated to smoothly facilitate the implementation of the census programme. Governments should also commit funding to the programme to ensure that the activities are financed up to the end, before inviting the development partners to supplement their funding commitments.

5.2 Basic organizations/administrative aspects of the census

Lessons learned from the 2000 census round show that there were several organizational and administrative problems in the conduct of censuses across the region. The NSOs in the region should, therefore, put in place comprehensive census organizational structures that will ensure successful implementation of the programme. Countries with ad hoc cartographic units should set up permanent units to ensure that census mapping is fully done and on time. It is important that census cartography and use of GIS are promoted and encouraged because they facilitates accurate enumeration of populations by better demarcating the enumeration areas (EAs). Furthermore, NSOs will need to strengthen collaboration with development partners

and identify one lead development partner to coordinate the rest of the development partners in mobilizing funds. Pooling of donor resources, which is a cost-effective strategy for meeting the diverse demands expected in these countries and ensuring that the funds are used for the intended purpose, should be emphasized.

5.3 The need to satisfy technical requirements in census planning and implementation

Lessons learned indicate that the greatest bottleneck of the census programme is in the delay of release of census results, which is related to data processing. New technologies that could improve the speed in data capture and reliability in data processing should be introduced in all census operations. It is expected that such technologies will also reduce the number of staff to be involved in data processing activities. Recent innovations in this regard include: the use of OMR/OCR for scanning, the application of computer assisted codification techniques, the use of local computer network in order to increase the storage capacity and the distribution of data files. The use of new technology to scan the raw data and input it direct into computers in Tanzania reduced the period between the census enumeration (September 2002) and release of full results (March 2003) from several years in the past to only 6 months.

Another important strategy is to heavily involve the analytical team members from the conception of census operations to the end. These specialists should participate in drafting census questionnaires and formulating analytical plan for data analysis and write-up.

5.4 Effective census data utilization

Although censuses are expensive, in relative terms, they are not expensive in terms of the potential value. There is concern that censuses are often not fully utilized because the data is not always analyzed and turned into information for use by policy-makers. One reason why census data is not fully utilized in some African countries is because NSOs do not have effective dissemination strategies in place. UNFPA and other international agencies are paying increasing attention to the need of supporting the use of census data for poverty mapping and promoting thematic policy dialogue.

There is need to make more extensive use of data for national planning and development, including the use of census data for small-area estimates for the benefit of local governments. This means that NSOs should conduct training workshops for local government and community officials on how to use such data without breaching confidentiality.

There are also problems associated with the use of census data for non-statistical purposes, for example for election voter registers and updating of administrative registers. While these demands for census data should be met, NSOs need to review the procedures on what data to release to the national electoral commissions and administrative registrars without compromising the confidentiality of individuals.

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