

**PLANNING OF CENSUS 2011:  
APPROACH AND IMPLEMENTATION STRATEGIES**

**PREPARED BY**

**KEFILOE MASITENG AND JOHN KEKOVOLE**

## Introduction

Census taking is a momentous and challenging undertaking. It brings on board diverse political, economic and social demands in terms of the resources that have to be deployed to collect the requisite data. The role of a population and housing census is to collect, process and disseminate detailed statistics on population size, composition and distribution at small area level unlike sample surveys which provide data at much higher geographic levels such as national and regional. Evidence-based decision making is increasingly becoming a paramount best practice which many countries including South Africa embrace. It is in this regard that the South Africa government has committed itself to ensuring that Census 2011 is successfully carried out as part of the United Nations 2010 Round of Population and Housing Censuses Programme (United Nations, 2006).

Census 2011 will be the third census to be carried out since 1994. Previous censuses were carried out in 1996 and 2001. The data collected in these censuses have been extensively used in evaluating the impact diverse policies and programmes have had on improving the standard of living of the population particularly the reduction of poverty (The Presidency 2003 and 2008). In addition to the above objective, the data scheduled to be collected in this census will provide insights into how far the country will have addressed the achievement of the Millennium Development Goals (MDGs).

‘Census Planning is the **core process** in linking the different phases of the census cycle’ (United Nations, 2001). Planning therefore, plays a pivotal role in the entire programme of census taking. It facilitates effective integration and implementation of various activities by ensuring that each phase is properly resourced and that quality outputs are achieved within prescribed timeframes. The focus in the early stages of planning is primarily on setting strategic directions. All dependencies between the different phases are identified. Potential risks are also identified and control measures are put in place to minimize their adverse effects.

This paper focuses on the approach that has been used to develop plans for Census 2011 and the strategies that are envisaged to be deployed to deliver a successful census. It documents the lessons learnt from previous censuses and other countries, and how these lessons have been taken on board.

## Lessons learnt from previous censuses

Several important strategic lessons were learnt from the last two censuses. These include the following, amongst others:

First, integrated planning constitutes a critical phase of the census programme. It sets the strategic trajectory to be followed and the inter-dependencies that need to be effectively managed. This vital component was not implemented during the 1996 and 2001 censuses. Plans were developed and implemented in silos. It became extremely difficult to ascertain the value added by different work streams to the overall census programme.

Second, it is very important to involve stakeholders in all phases of the programme in order to enhance both ownership and accountability. Involvement of stakeholders was limited to content development, particularly during Census 2001. For example, publicity and advocacy strategies did

not cut across all the phases of the census. They were focused mainly on enumeration and dissemination phases. This is one of the factors which greatly contributed to the high undercount. Third, timely demarcation of the country into Enumeration Areas (EAs) and complete listing of dwelling units/households constitutes the cornerstone of managing effective budgeting and field control during enumeration. The last census suffered the most in this regard. The exercise was hurriedly carried out. The listing of dwellings was not completed. It was therefore, not possible to ascertain whether the enumerators had fully canvassed the EAs assigned to them.

Four, data processing and other logistical systems should be developed and adequately tested before the main enumeration. The processing of the data collected in Census 2001 was delayed due to an oversight of this important aspect of planning.

Five, it is important to have adequate human resources dedicated to the census programme, rather than having a fragmented team comprising of people who are required to carry out other core activities in the organization. This particular approach resulted in the diversion of personnel to the census and inadequate attention to the core business of the organization during the peak of major census activities such as mapping and enumeration.

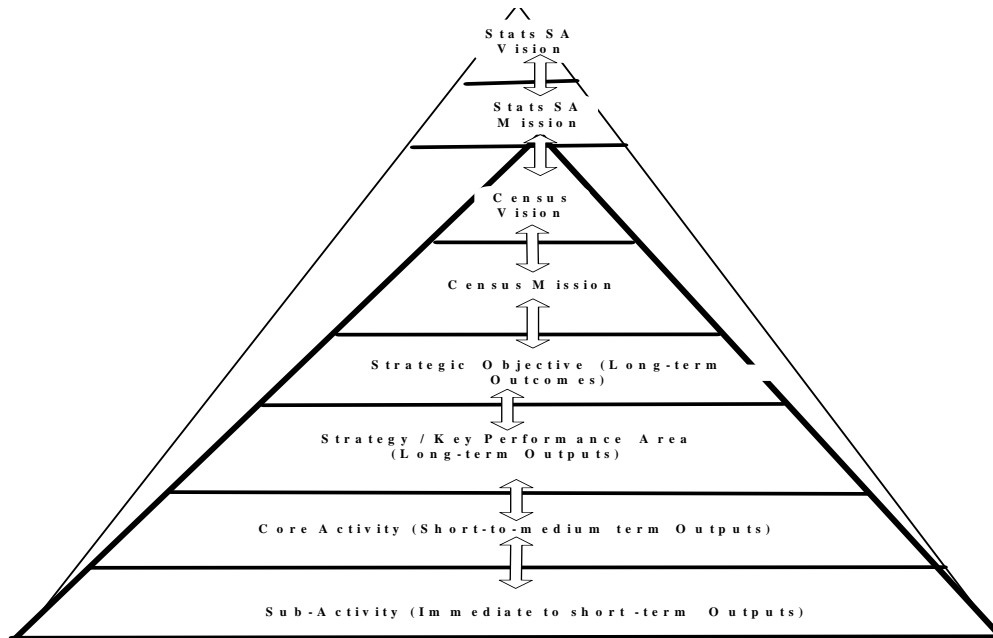
Finally, a pilot census should be carried out at least a year before enumeration to provide insights into the efficacy of the various operational procedures and systems that are scheduled to be implemented. The pilot census for Census 2001 was carried out too late (six months before enumeration). The results emanating from this exercise could not be utilized to improve the core processes.

The planning of Census 2011 takes recognizance of the above lessons as highlighted in the subsequent sections of the paper.

## Approach

An integrated approach has been used to develop the pertinent plans as discussed below. The process has involved tapping the views of diverse stakeholders at national and provincial levels as well as recognizance of international best practice. Figure 1 shows the framework that has been used.

**Figure 1: Operational Framework**



The framework achieves two purposes. Firstly, it is a graphic simulation of the interrelationship between the different levels of census planning and implementation. Secondly, it shows the linkage between the census programme and the organisational vision and mission (Statistics South Africa, 2005).

To simulate the interrelationship between the different levels of census planning and implementation, the journey from the census sub-activities to the vision is captured. The mission provides a means through which the vision shall be realised. The mission itself is pursued through a set of long-term strategic objectives and strategies. Hence the framework underscores the three levels of planning that are currently used: strategic, tactical and operational.

## Strategic plan

A strategic plan has been prepared. The plan maps out a long-term road map towards the attainment of the overall goal of the programme. The plan deals with the entire census programme. It integrates the objectives and strategies that are scheduled to be pursued by core focus areas/work streams.

This subsection highlights the vision, mission, goal, key objectives and strategies, monitoring and evaluation frameworks and governance structures.

***Vision:*** *To be an acclaimed leader in conducting quality censuses.*

***Mission:*** *To plan, collect, process, analyse and disseminate high quality data by ensuring full participation of all stakeholders and effective and efficient count of every person in the country through the establishment of a culture of continuous evaluation and improvement.*

***Goal:*** *To ensure that everyone who spent the census night in the country is counted.*

### ***Objectives and strategies***

The following objectives and strategies will be pursued:

- ***To ensure effective planning, coordination, integration, monitoring, evaluation and reporting throughout the entire census programme on an ongoing basis***

As underscored earlier on proper planning at all levels is paramount. It requires effective coordination, monitoring and evaluation. This will be accomplished by engaging all internal and external stakeholders on an ongoing basis. It will also entail a lot of advocacy.

- ***To provide effective and efficient geographical operations to facilitate census taking by 30<sup>th</sup> September 2011***

This objective is aimed at ensuring that the demarcation of the country into EAs is successfully carried out and the necessary maps are prepared for enumeration. The major strategies revolve around acquisition of up to date spatial data, involvement of relevant stakeholders including community leaders and completion of the dwelling frame.

- ***To undertake research to inform content development, development of monitoring indicators and publicity strategies by March 2013***

The main purpose of this objective is to provide insights into the type of information that respondents are willing to provide and the questions that should be asked including the layout and format of the questionnaire. It is also aimed at carrying out mapping of all pertinent processes to generate performance indicators for monitoring and evaluation.

- ***To produce relevant data collection tools and products by March 2013***

The ultimate output of this objective is to ensure that the development of the questionnaire takes into account both user needs and respondents' concerns. The main strategies will entail review of data items collected in previous censuses, identification of stakeholder needs and incorporation of research results and international best practice.

- ***To collect data on everyone in the country by 31<sup>st</sup> October 2011***

The main output of this objective is to ensure that the requisite data is collected. The major strategies will include development of data collection, field logistics and training methodologies and procedures.

- ***To capture and accurately process data contained in the questionnaires by 30 September 2012***

The main aim of this objective is to ensure that the collected data will be properly processed. Hence the main output is availability of a clean data set. The strategies to guarantee the achievement of this objective will include review of data processing technology (software) and development of editing specifications.

- ***To conduct a high quality Post-Enumeration Survey in November 2011***

International best practice underscores the need to conduct a post-enumeration survey immediately after the main enumeration (United Nations, 2006). The main purpose of undertaking this survey is to assess the rate of over/undercount as well as the characteristics of persons who are affected. This assessment is crucial in ascertaining the usefulness of the data. This survey will be undertaken by an independent team. Its success will depend on review of lessons learnt in previous censuses and international best practice, and effective collaboration with pertinent core focus areas particularly Content Development; Research and Methodology; and Data Processing.

- ***To make census data available to stakeholders on an ongoing basis***

This objective aims at ensuring that the data collected in this census will be adequately disseminated to enhance its utilisation in decision-making particularly policy formulation. For this to be achieved it will be paramount that user needs be assessed in terms of the type of products that are deemed necessary.

- ***Strategies to minimize the undercount***

One of the major challenges many countries confront relates to the under-coverage of the population which results into having figures which are inaccurate. Hence, knowledge of the net undercount for a particular population census is a useful and necessary tool for assessing the quality of a population census.

There are many factors which contribute to the above problem. These include:

- Poor planning which is manifested by lack of integration of activities, lack of effective monitoring and evaluation systems, poor budgeting, ineffective governance structures etc;
- Lack of ownership as a result of not adequately involving stakeholders in all phases;

- Political interference/disturbances which create fear for some people to avail themselves to be enumerated;
- Gaps in the demarcation of the country into Enumeration Areas (EAs) which lead to some areas being uncovered;
- Hard to count groups such as mobile populations, children, illegal migrants and even persons with disabilities;
- Inadequate research to inform the topics and questions to be asked; and
- Poor recruitment and training of fieldworkers amongst others which are unique to countries.

The United Nations recommends that countries carry out Post Enumeration Surveys (PES) immediately after the enumeration to ascertain the level of coverage. This entails complete re-enumeration of a representative sample of EAs and matching each individual who is enumerated in the PES with information from the main enumeration to:

- Assess the degree of coverage during census enumeration
- Examine the implications of any coverage deficiencies, if any, on the usefulness of the census data
- Obtain information for the design of future censuses and surveys
- Determine the characteristics of persons who may have been missed or erroneously included during census enumeration.

The undercount level, usually expressed as a percentage of the total population under study, is used as a measure of confidence in the quality of the coverage and by extension the usefulness of the census data. The lower the undercount, the better the quality of the census coverage. In other words, the undercount tells how well the count was done. It can be used to benchmark the National Statistics Organization's performance against that of other agencies with respect to census taking. In planning for subsequent censuses and to ensure continuous improvement, the previous undercount figures have to be taken into account.

## Levels of undercount

The PES and demographic estimation techniques using vital registration data and data collected in various demographic surveys have been used by some countries to determine the level of undercounts. Table 1 below provides estimates for African countries

**Table1. Post Enumeration Survey for Selected African Countries**

Country	Last Census Year Month/Year	PES Year Month/Year	Undercount (National)
Uganda	Sep 2002	Jan 2003	4%
Tanzania	Aug 2002	Nov 2002	7%
Seychelles	Aug 2002	No PES	2.4% undercount derived through analysis
Mauritius	Jul 2000	No PES.	2.5% undercount determined by using civil registration data
Mozambique	Aug 1997	Sep 1997	5.1%
South Africa	Oct 2001	Nov 2001	18%

Seychelles and Mauritius are examples of countries which utilize vital registration data to validate their census results. In spite of the methodology used to determine the undercount, majority of the African countries have recorded undercounts of less than five percent in their most recent censuses. This is in line with global patterns as shown in Table 2 below.

**Table 2. Estimates of undercount in Selected Countries beyond Africa**

Country	Census Year	Undercount
Nepal	2001	5.3%
New Zealand	2001	2.2%
Australia	2001	2.2%
Canada	1996	2.6%
United States of America	2000	1.2%



In the two post-apartheid censuses of 1996 and 2001 conducted in South Africa, undercounts of 10% and 18% were respectively recorded as shown in Table 3. Apparently, the figures indicate that the percentage of households not covered was higher than the percentage of persons that were missed in all provinces in Census 2001.

**Table 3. Percent undercount for persons and households by province**

Province	1996		2001	
	Persons	Households	Persons	Households
Eastern Cape	10.6	5.3	14.7	15.6
Free State	8.8	6.2	17.6	20.6
Gauteng	10.0	6.8	18.7	23.0
KwaZulu Natal	12.8	7.8	22.5	26.2
Limpopo	11.3	8.0	14.4	17.0
Mpumalanga	10.1	6.0	16.1	17.2
Northern Cape	15.6	10.4	14.1	17.8
North West	9.4	4.6	16.0	20.3
Western Cape	8.7	5.5	16.3	16.9
South Africa	10.7	6.6	17.6	20.5

**Source: “How the count was done”, Statistics South Africa, 1998 and 2004**

Vast arrays of factors were responsible for the increase in the undercount in Census 2001:

- The socio-political climate of 1996 was arguably better than that of 2001. The 1996 census happened just two years after the advent of a new democratic government and as was the case with the elections, enthusiasm levels to participate in the census were high.
- The planning for Census 2001 was delayed due to debates as to whether to carryout a census or a large survey. This delay resulted in poor implementation of key activities particularly publicity/advocacy campaigns to solicit for ownership by stakeholders, demarcation of the country into viable Enumeration Areas (EAs), development of the instruments (questionnaires and manuals etc), recruitment and training of field staff, development of data processing systems and lack of utilization of the pilot results to improve pertinent systems, processes and logistics.

- *Strategies to deal with the hard to count groups*

The hard to count groups identified during Census 2001 were mainly people living behind high walls, young males, children particularly those aged below 5 and illegal migrants. The problem emanated from lack of understanding of the objectives of census taking, fear of being identified (illegal migrants), social cultural concerns, recruitment of unqualified field personnel and poor training.

Special publicity will be mounted to sensitize these groups about the confidentiality of the information they provide and the utility of the data. The questions to be asked will be explained to them. The issue of the Census night (de facto coverage) will be underscored so as to avoid the confusion between de facto and de-jure enumeration. A group to be known as the “Friends of Census 2011” will be established to assist in this Endeavour. The group will comprise of persons at the community level who will be identified by various stakeholders. Their role will be to foster collaborative working relationships with members of the public.

## **Tactical and Operational Plans**

Tactical planning is mainly about the tactics, methodologies and tools to be utilised to implement the strategy. These are component-specific but also cover the entire census period. All tactical plans draw their broad strategic parameters from the overall strategic plan.

Operational planning is the conversion of the tactical plans into operational schedules. This is the lowest, component-specific and most detailed level of planning. A schedule of activities encompassing all core activities for each work stream/focus area over the census period will be drawn. These core activities will be broken down into implemental sub-activities on an annual basis.

## Monitoring and Evaluation Framework

The monitoring and evaluation of the implementation of the census programme is a critical endeavour to ensure that the timeframes and outputs that are envisaged to be achieved are met. Figure 2 shows the monitoring and evaluation review cycle. Its objective is to guide the management of the implementation of the plan.

**Figure 2: Monitoring, Evaluation and Review Cycle**



All work streams/focus areas have prepared operational plans which provide a detailed list of activities that are to be undertaken to achieve specific objectives and outputs as profiled in the strategic and tactical plans. The mapping of the various processes is currently underway. This exercise is expected to generate appropriate performance indicators and target dates to support this process. These indicators are going to be used to ascertain the progress made toward achieving various outputs on an ongoing basis.

## Quality Assurance Framework

The quality of the census outputs is a function of the quality of the inputs and throughputs as informed by the strategy. The programme will utilise the eight measurable dimensions of quality stipulated in the Stats SA Quality Assessment Framework to develop performance indicators (both quantitative and qualitative). These dimensions are:

- **Relevance:** The degree to which the data meets the real needs of clients. It is concerned with whether the available information sheds light on the issue of most importance to users.
- **Methodological soundness:** This refers to the application of international standards, guidelines and other agreed upon practices to produce statistical outputs. Application of such standards foster national and international comparability.
- **Accuracy:** The accuracy of statistical information is the degree to which the output correctly describes the phenomena it was designed to measure.
- **Timeliness:** This refers to the delay between the reference point to which the information pertains, and the date on which the information becomes available.
- **Accessibility:** Accessibility refers to the ease with which information can be obtained from the producers of the information. This includes the ease with which the existence of information can be ascertained, as well as the suitability of the form or media through which the information can be accessed. The cost of the information may also be another aspect for some users.
- **Interpretability:** The interpretability of information refers to the ease with which users understand statistical information through the provision of metadata.
- **Coherence:** The coherence of statistical information reflects the degree to which it can be successfully brought together with other statistical information within a broad analytic framework and over time.
- **Integrity:** Integrity refers to values and related practices that maintain confidence of users in the agency that produces the statistics and ultimately in the statistical products.

The above quality dimensions will be considered in all phases of the programme. However, certain dimensions will be more pronounced in certain phases than in others. Each work stream will declare actions to be taken to ensure how each dimension will be addressed in their tactical and operational plans.

## Governance Structures

The success of any census does not only depend on how the various activities are implemented and monitored, it also relies greatly on governance bodies which enhance the efforts of the teams that are mandated to execute the activities. It is in this regard that the following oversight bodies will be required to assist the programme:

### *South African Statistics Council*

The Statistics Act (Act 6 of 1999) mandates the Council to advise both the Minister and the Statistician-General on statistical matters. The national importance of carrying out a population

census and the amount of resources utilised do require a lot of guidance and all the necessary support from the Council. The Council will be expected to make a pronouncement on the census results as part of their advisory role.

### ***Census Steering Committee***

Stats SA's embraces project management approach as a vital tool of running its business. Although the responsibility to conduct this census wholly lies with the organisation, it is of paramount importance to have a steering committee that can assist in the monitoring of the implementation of various activities. It will be the primary decision-making body with a strategic and policy mandate. It will also be expected to ensure the alignment of the project with expectations from internal and external stakeholders.

### ***Provincial Advisory Committees***

Provincial Advisory Committees will be established. The main role will be to enhance the ownership of the census programme at provincial level by involving all the stakeholders at this level. They will be expected to advise Stats SA's on the dynamics that need to be taken into account to ensure effective participation of stakeholders, including the public, in the programme.

### ***Technical Working Committees***

Technical Working Committees will be established to give technical inputs in specific focus areas. The committees will draw the required expertise from reputable subject matter specialists from within and outside the organisation.

### ***Core structure***

Unlike in the previous censuses, the government has approved the creation of a permanent structure for population censuses. The rationale is to ensure continuity of institutional memory. However, given the magnitude of the census contract staff will be recruited to complement the permanent structure when need arises.

## **Milestones**

The following are the major milestones:

- Conduct Pilot in October 2009
- Finalise the questionnaire by May 2010
- Finalise demarcation of the country into EAs by October 2010
- Finalise the listing of dwelling units and households by September 2011
- Conduct enumeration in October 2011
- Conduct Post Enumeration Survey in November 2011
- Finalise data processing by September 2012
- Finalise evaluation of the data by December 2012

- Release the results in March 2013

## **Progress to date**

The following progress has been achieved:

- Strategic and Tactical plans have been finalised.
- Research pertaining to publicity has been carried out.
- Content research on fertility, mortality, disability, employment and literacy schedules has been carried out. The reports can be accessed at our website [www.statssa.gov.za](http://www.statssa.gov.za).
- An independent team has been set up to conduct the Post Enumeration Survey.
- Demarcation of the country into EAs has been initiated.
- Review of methodologies and systems is underway.
- Development of the questionnaire for the Pilot Census is underway.
- Recruitment of permanent staff is ongoing.

## **Conclusion**

The planning phase is almost complete. The implementation phase has been initiated with special focus on activities which constitute the bulk and critical success factors. The Pilot will provide further insights into the effectiveness of the various strategies that are expected to enhance the achievement of the envisaged outputs and milestones. However, the ownership of the programme by all stakeholders is paramount. The ultimate goal is to ensure that better coverage is achieved and high quality data are collected.

**{IF YOU DON'T PLAN YOU PLAN TO FAIL!!!}**

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