

REPUBLIC OF MOZAMBIQUE

2017

POPULATION AND HOUSING CENSUS

PROJECT DOCUMENT

May 31, 2014

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Acronyms

| | |
|-----------|--|
| CAP | Censo Agro-Pecuário |
| CCA | Country Common Assessment |
| CCO | Comissão de Cartografia e Operações |
| CCRGPH | Conselho Coordenador do Recenseamento Geral da População e Habitação |
| CENACARTA | Centro Nacional de Cartografia e Teledetecção |
| CSPPro | Census and Survey Processing System |
| CST | Country Technical Services Team |
| DINAGECA | Direcção Nacional de Geografia e Cadastro |
| DPINE | Delegação Provincial do Instituto Nacional de Estatística |
| EA | Enumeration Area |
| ESARO | Eastern and Southern Africa Regional Office (UNFPA) |
| GCR | Gabinete Central do Recenseamento |
| GDR | Gabinete Distrital do Recenseamento |
| GIS | Geographic Information System |
| GPR | Gabinete Provincial do Recenseamento |
| GPS | Global Positioning System |
| HIV/AIDS | Human Immunodeficiency Virus/ Acquired Immune Deficiency Syndrome |
| IAF | Inquérito aos Agregados Familiares |
| IBGE | Instituto Brasileiro de Geografia e Estatística |
| ICPD | International Conference on Population and Development |
| IDS | Inquérito Demográfico e de Saúde |
| IFTRAB | Inquérito da Força de Trabalho |
| IFTRAB | Inquérito Integrado à Força de Trabalho |
| INE | Instituto Nacional de Estatística (National Institute of Statistics) |
| INJAD | Inquérito de Saude reprodutiva dos Jovens e Adolescentes |
| INJAD | Inquérito Nacional de Jovens e Adolescentes |
| IPC | International Programs Center of the US Census Bureau |
| M&E | Monitoring and Evaluation |
| MDGs | Millennium Development Goals |
| NEPAD | New Partnership for Africa Development |
| NGO | Non-Governmental Organization |
| NPP | National Population Policy |
| PA | Posto Administrativo |
| PARPA | Plano de acção para a Redução de Pobreza Absoluta |
| PDS | Population and Development Strategies |
| PES | Post-Enumeration Survey |
| PHC | Population and Housing Census |
| PM&E | Planning, Monitoring and Evaluation |
| QUIBB | Questionário de Indicadores Básicos de Bem-Estar |
| SA | Supervision Areas |
| SEN | Sistema Estatística Nacional (National Statistical System) |
| SSA | Statistics South Africa |

| | |
|-------|--|
| TIA | Trabalho do Inquérito Agrícola |
| TPR | Tripartite Project Review |
| UNDAF | United Nations Development Assistance Framework |
| UNFPA | United Nations Population Fund |
| UNV | United Nations Volunteer |
| USAID | United States Agency for International Development |

Foreword

President
INE
June 2014

Executive summary

Since the conduct of the last census, the country has undergone large-scale population redistribution and changes in settlement patterns in most of the areas due to different factors such as floods and migration induced by uneven economic development in the provinces. The high prevalence rate of HIV/AIDS has conspicuously affected the population size in certain areas. These changes in population size and distribution have affected the size and locations of many of the 2007 census enumeration areas. During field surveys carried out from 2008 and thereafter, most of the EAs included in the sampling frame were found fraught with problems related to their size and location and were, therefore, subjected to comprehensive updating/ revision. Also, locations of certain EAs created during the process of 2007 census enumeration need to be properly recorded on the maps as well as in the cartographic database. Thus, the EA frame of the 2007 Census has become outdated and needs a thorough revision to make it appropriately representative, detailed with well-defined boundaries, and usable in the forthcoming census. This will thus ensure realization of complete coverage in the enumeration, provide an accurate base for sampling in future surveys, and promote population research and data utilization at the micro level.

As a primary source of data, the 2017 census will provide to the country an important part of the foundation for good governance, decentralization, and development. The data collected and the population-based information will be crucial for national, sub-national and sectoral policies and plans, for development frameworks, such as CCA/UNDAF, national poverty reduction strategy and other sectoral strategies, as well as for tracking progress towards the post 2014 ICPD Agenda and the goals that will replace the MDG goals after the September 2015 Summit.

For instance, the 2017 census will play a key role in localizing the MDGs, as a unique source to close the data and information gaps at the lower levels for the purpose of good governance and effective decentralization. In fact, the data broken down to the local level are indispensable for an understanding of local solutions, a critical planning lever, and a tool for dialogue about local development priorities. The analysis of the census data with supplemental information from national household surveys can also be used to develop poverty maps for Mozambique.

To sum up, several reasons underlie the conduct of the forthcoming census. These are the following:

- The census is scheduled to take place in August 2017 to keep in line with the decennial census-taking programme.
- The 2017 census will update the information collected during the last 2007 census which is now obsolete.
- The 2017 census will enrich the stock of available socio-demographic data in the country in order to allow the planners and the decision-makers to have more basic indicators that are necessary for the elaboration and monitoring of development plans and programmes.
- The 2017 census will reinforce the bases of the decentralization process (11 provinces, 152 districts, 429 administrative posts, 1143 localities), and then the use of the census data as an engine for comprehensive local development.

- The 2017 census will contribute to reinforcing the technical capacity of the INE in data collection, processing, analysis, and in the dissemination and use of the census results and products. The 2017 census is planned strategically to deliver the expected results and products within less than two years (18 months) in order to meet statistical information requirements for the planning, monitoring, and evaluation (PM&E) of economic and social development at the national and local levels.
- The 2017 census data will make it possible to measure the impact of HIV/AIDS on the population structure of Mozambique. The data on paternal and maternal orphanhood of children will provide indicators of the effect of HIV/AIDS on families, and the mortality data by age group will also be useful for this analysis.
- The 2017 census data will provide the only reliable data on maternal mortality at the national and sub-national levels.
- The 2017 census data and cartographic maps will be indispensable for supporting the organization of the forthcoming general elections, scheduled to take place in 2018 (municipality) and 2019 (general).

However, the census is a vast operation that requires an attentive and anticipatory planning of sufficient technical, financial and human resources, and a comprehensive training of field personnel. It must be preceded by a sensitization of the population and authorities. An important effort must be made to ensure that the data and information are really accessible to all users in the private and public sectors.

The Mozambican population is the primary beneficiary of the census project. The greatest risk of a census operation is the inability to obtain adequate funding, both from the Government and from donor organizations, for all census activities, most importantly the cartographic work and the primary enumeration. These are two phases that absorb the greatest part of the total cost of the census, and which are at the same time crucial to the success of the census operation.

Summary Budget

The cost of the 1997 census was about 17.3 million dollars for a population of 16 million inhabitants. The cost for the 2007 Mozambique census was about US\$38 million for an enumerated population of 20 million. The estimated budget for the Mozambique 2017 Population and Housing Census (PHC) is around US\$80 million.

According to the data available from the UNSD¹, the average cost of the 2010 Round of censuses in Africa was about US\$2.03 per capita, whereas for Mozambique the cost is estimated to be US\$3.0 per capita for a projected population of 27,128,530 persons in 2017. In addition to the costs in the above budget, the Government of Mozambique will make a substantial contribution by letting the census use the state infrastructure, e.g., through the use of the Government motor pool.

1 Sources:

1. Projected Census Dates, Funding Requirements and Sources, and Technical Assistance Needs for the 2010 Round of Population and Housing Censuses
Diane Stukel Demographic and Social Statistics Branch United Nations Statistics Division
- 2.

Here below is the summary of the budget for the 2017 Mozambique Census distributed by year:

Resumo do orçamento para o Recenseamento da População e Habitação de Moçambique 2017 (US\$)

| Componentes | Ano | | | | | Total |
|------------------------------|-------------------|-------------------|-------------------|------------------|------------------|-------------------|
| | 2015 | 2016 | 2017 | 2018 | 2019 | |
| Pessoal Nacional | 3 822 050 | 3 823 775 | 18 825 954 | 1 714 470 | 525 600 | 28 711 849 |
| Pessoal Internacional | | 200 000 | 200 000 | 50 000 | | 450 000 |
| | | | | | | - |
| Formação | 703 700 | 120 000 | 6 222 000 | 150 000 | 150 000 | 7 345 700 |
| Equipamento | 4 455 000 | 4 136 933 | 4 354 086 | 4 833 | 2 500 | 12 953 353 |
| Diversos | 898 000 | 1 306 652 | 6 182 293 | 489 712 | 489 712 | 9 366 369 |
| Outsourcing | 2 367 944 | 4 735 888 | 11 839 719 | 4 735 888 | - | 23 679 438 |
| | | | | | | |
| Total | 12 246 694 | 14 323 248 | 47 624 052 | 7 144 903 | 1 167 812 | 82 506 709 |

1. Background and justification

1.1. Background

The history of population counts/censuses in Mozambique dates back to 1930. The first population census during the post-independence period was conducted in 1980 and showed a population size of 12.1 million, after an under-enumeration adjustment of 4 percent. The information, which was widely used, was published in a number of volumes at national, provincial, and district levels.

Following the decennial population census program, which ensures the availability of demographic and socio-economic data on a continuous basis for planning, monitoring, and evaluation (PM&E) of population programmes and socio-economic development, the second census was originally scheduled for 1990. However, due to insecurity problems that would particularly affect field activities, and inadequacies in institutional capabilities, the census was actually carried out in 1997 when a population of about 16 million was enumerated.

A third census was undertaken in 2007 and the results showed a total population of 20,226,296 persons.

Census results have been extensively disseminated and used through different formats (hard copies, CD-Rooms and Internet), also different reports and topics were elaborated and disseminated.

The Census of Agriculture (Censo Agropecuário, CAP) and all household surveys are based on the Population Census frame. The census cartography and data on the number of households with agricultural operations down to the census enumeration area (EA) level are used to construct the sampling frame for the CAP. This important data collection project provided estimates for the area in different crops and the number of livestock for each district in Mozambique. The National Institute of Statistics (*Instituto Nacional de Estatística*, INE) plans to provide the same type of basic data on agricultural operations for the 2017 census, in order to update the sampling frame for the national agricultural surveys.

So far, the INE has accomplished a number of surveys providing data on household living conditions and basic health indicators. These surveys include:

- *Inquérito aos Agregados Familiares* (IAF, 2008/2009)
- *Inquérito Demográfico e de Saúde* (IDS, 2011)
- *Inquérito Contínuo aos Agregados familiares* (INCAF 2012/2013)

Data produced through these surveys have been extensively used for research and for implementation and monitoring of population and development programmes.

Another important application of the Mozambique census results which illustrates the importance of the census small area data for national emergency response is that Mozambique suffers from cyclical natural disasters like floods and hurricanes so the census data and cartography are used to produce local thematic maps to highlight the population within the areas affected by these natural disasters. This is instrumental in making the

Government of Mozambique's plans for emergency relief, as well as international assistance, more effective.

1.2. Justification

Since the conduct of the last census, the country has undergone large-scale population redistribution and changes in settlement patterns in most of the areas due to different factors including migration induced by uneven economic development in the provinces. The high prevalence rate of HIV/AIDS has conspicuously affected the population size in certain areas. These changes in population size and distribution have affected the size and locations of many of the 2007 census enumeration areas. During field surveys carried out from 2008 and thereafter, most of the EAs included in the sampling frame were found fraught with problems pertaining to their size and location and were, therefore, subjected to comprehensive updating/ revision. Also, locations of certain EAs created during the process of 2007 census enumeration need to be properly recorded on the maps as well as in the cartographic database. Thus, the EA frame of the 2007 census has become outdated and needs a thorough revision to make it appropriately representative, detailed with well-defined boundaries, and usable in the forthcoming census. This will thus ensure realization of complete coverage in the enumeration, provide an accurate base for sampling in future surveys, and promote population research and data utilization at the micro level.

The end of the 90's decade was particularly marked by the adoption of the Millennium Development Goals (MDGs). The MDGs grew out of the agreements and resolutions of a dozen world conferences organized by the United Nations in the past decade, among which was the International Conference on Population and Development (ICPD) held in Cairo in 1994. The post 2014 ICPD agenda now emphasizes issues like good governance, human dignity and human rights in addition to its original focus on reproductive health and rights. Following the MDG summit in September 2015, there will be a different agenda and new targets will be set. As a primary source of data, the 2007 census will provide to the country an important part of the foundation for good governance, decentralization and development. The data collected and the population-based information will be crucial for national, sub-national and sectoral policies and plans, for development frameworks, such as CCA/UNDAF, national poverty reduction strategy and other sectoral strategies, as well as for tracking progress towards the ICPD and MDG goals.

For instance, the 2017 census will play a key role in localizing the MDGs, as a unique source to close the data and information gaps at the lower levels for the purpose of good governance and effective decentralization. In fact, the data broken down to the local level are indispensable for an understanding of local solutions, a critical planning lever, and a tool for dialogue about local development priorities.

The analysis of the census data with supplemental information from national household surveys can also be used to develop poverty maps for Mozambique.

To sum up, several reasons underlie the decision to conduct the forthcoming census. These are the following:

- The census is scheduled to take place in August 2017 to keep in line with the decennial census-taking programme.

- The 2017 census will update the information collected during the last 2007 census that is now obsolete.
- The 2017 census will enrich the stock of available socio-demographic data in the country in order to allow the planners and the decision-makers to have more basic indicators that are necessary for the elaboration and monitoring of development plans and programmes.
- The 2017 census will reinforce the bases of the decentralization process (11 provinces, 152 districts, 429 administrative posts, 1143 localities), and then the use Census data as an engine for comprehensive local development.
- The 2017 census will contribute to reinforcing the technical capacity of the INE in data collection, processing, analysis, and in the dissemination and use of the census results and products. The 2017 census is planned strategically to deliver the expected results and products within less than two years (18 months) in order to meet statistical information requirements for the planning, monitoring, and evaluation (PM&E) of the economic and social development at the national and local levels.
- The 2017 census data will make it possible to measure the impact of HIV/AIDS on the population structure of Mozambique. The data on paternal and maternal orphanhood of children will provide indicators of the effect of HIV/AIDS on families, and the mortality data by age group will also be useful for this analysis.
- The 2017 census data will provide the only reliable data on maternal mortality at the national and sub-national levels.
- The 2017 census data and cartographic maps will be indispensable for supporting the organization of the forthcoming general elections, scheduled to take place in 2018 (municipality) and 2019 (general)

However, the census is a vast operation that requires an attentive and anticipatory planning of sufficient technical, financial, and human resources, and a comprehensive training of field personnel. It must be preceded by a sensitization of the population and authorities. An important effort must be made to ensure that the data and information are really accessible to all users in the private and public sectors.

2. Census proposed topics

The items to be investigated during the 2017 census will be:-

- geographical identification (*província, distrito, posto administrativo, localidade/vila, bairro*);
- name;
- relationship to head of household;
- sex;
- age;
- place of birth;
- nationality;
- religion;
- place of usual residence;
- place of residence in last census year;
- duration at the present residence;
- disability (types and causes);
- maternal and paternal orphanhood;
- birth registration;
- mother tongue;
- ability to speak foreign languages;
- literacy;
- education (school attendance, educational attainment);
- activity status;
- occupation;
- employment status;
- marital status;
- age at first union;
- fertility (children ever born, children living);
- housing and living conditions;
- ICT
- agro-pastoral activity at household level;
- mortality (deaths in the past 12 months);
- maternal mortality (female aged 15-49 deaths: during pregnancy, giving birth, within 2 months of the end of a pregnancy or childbirth).

3. Objectives

A census must provide the information needed to successfully elaborate and implement development programmes. The goals of the 2017 PHC will, when achieved, contribute to the optimal satisfaction of the users' data needs.

3.1. General objectives

- By the end of the project, to have improved the knowledge of the main characteristics of the population in the country to better understand the interrelationships of population and development;
- By the end of the project, to have developed the PM&E indicators of national poverty reduction strategy, incorporating resolutions and recommendations of international and regional conferences such as Plan of Action of the Post (2014) ICPD, MDGs and New Partnership for Africa Development (NEPAD);
- By the end of the project, to have analyzed demographic and related socio-economic data/information at the national and sub-national levels, disseminated the analyses through publications, seminars, and mass media, and made them available for a better integration of demographic variables into development plans and programmes. These programmes can be global (for example, as part of the national poverty reduction strategy like PARP), sectoral, multi-sectoral or bilateral;
- By the end of the project, to have set up an integrated and geo-referenced system of demographic and socio-economic information for planning and management of development programmes.

3.2. Specific objectives

In accordance with the principles of demographic analysis, the data, indicators, and other information from the census are systematically shown by sex and age. In this regard, the following specific objectives will be achieved at the end of the project:

- i. By the end of the project, to have strengthened national capacities by training national technicians in data collection, data processing, analysis, geographic information systems (GIS), data dissemination and utilization, including census strategic planning and management;
- ii. By the end of the project, to have improved the timely availability, accessibility, and utilization of census outputs or products;
- iii. By the end of the project, to have set up and contributed to databases for the purpose of M&E information systems of different programmes in population and development;
- iv. By the end of the project, to have made available data, indicators, and information for the evaluation of national programmes of population and development in the public sector, as of NGOs, private sector and aid programmes from development partners (for example, CCA/UNDAF);
- v. By the end of the project, to have developed indicators that respond to the specific needs of M&E plans as part of global development programmes (national poverty reduction strategy), sectoral development programmes, and aid programmes from development partners;
- vi. By the end of the project, to have made available data and indicators or necessary information at geographical levels sufficiently low to meet the requirements of

- decentralization policies and good governance, notably for the management of provincial and local (district) development programmes;
- vii. By the end of the project, to have identified and described groups of population having particular characteristics for the purpose of the definition of social policies and programmes (notably the vulnerable groups, as defined in the PARPA, *Plano de Acção para a Redução da Pobreza*);
 - viii. By the end of the project, to have elaborated population and socio-economic projections for the purpose of prospective analyses and mid-/long-term planning;
 - ix. By the end of the project, to have updated the master sample for intercensal surveys;
 - x. By the end of the project, to have established an integrated GIS to produce thematic maps; and,
 - xi. By the end of data processing, to make available population figures and census maps for elections.

4. Strategies

A census must meet the requirements of providing information for the management of development programmes. The global strategy aims for the realization of a census that is executed in a timely fashion, cost-effective, better-processed, better-disseminated, and more widely used.

4.1. Strategy for strengthening national capacities

- Implementation of the training plan;
- Prioritization of on-the-job training;
- Strengthening of technical means.

4.2. Strategy for rapid execution

- Improvement of the planning of activities;
- Complete conception or design of the post-enumeration activities during the preparatory phase.

4.3. Strategy for cost-utility reduction

- Taking into account the information needs of national development programmes;
- Improvement of the accessibility and the availability of the data;
- Resource mobilization at the national (public, private) and international level (increasing the number of partners).

4.4. Strategy for better data exploitation

- Designation from the beginning of the operation of persons responsible for the different expected outputs;
- Development of analysis and tabulation plans from the beginning of the process.

4.5. Strategy for better diffusion

- Development of a communication strategy for the census;
- Development of the calendar and plan of diffusion from the preparatory phase;
- Periodic publication of census bulletins/reports;
- Improvement of the diffusion media;
- Creation of a census page on the website of INE (www.ine.gov.mz).

4.6. Strategy for more effective use

- Involvement of the users from the beginning of the process;
- Taking into account the information needs for national development programmes;
- Better use of GIS to produce thematic maps;
- Inclusion of a synoptic table of appropriate indicators from international conferences, with an analytical summary, in each thematic report.

4.7. Strategy for promoting resource mobilization process

The Mozambican population is the primary beneficiary of the census project. The greatest risk of a census operation is the inability to obtain adequate funding, both from the Government and from donor organizations, for all census activities, most importantly the cartographic work and the primary enumeration. These are two phases that absorb the greatest part of the total cost of the census, and which are at the same time crucial to the success of the census operation.

The Government will attribute to the census the importance it deserves. Giving the census a high priority will permit census management to more easily mobilize the support needed in terms of adequate staffing and use of the Government motor pool, and will ensure enhanced cooperation on the part of national and regional authorities, the general population, and sources of international and bilateral cooperation.

The projected budget for the census should be submitted to the *Conselho Coordenador do Recenseamento Geral da População e Habitação* (CCRGPH) for approval as soon as possible. The government bears the primary responsibility for funding the census. It will however be necessary to seek sources of financing in addition to the Mozambican Government. In this aspect, bilateral cooperation and funding organizations such as the agencies of United Nations System in particular the UNFPA, the USAID, the World Bank, the European Union, and others will be approached for assistance.

With the full support of the Government officials, notably the Minister of Planning and Development, the President of INE should take a lead in resource mobilization for the 2017 census. Responsibility for arranging funding for this important statistical operation rests with the President of the INE. However, the UNFPA may be requested to coordinate the mobilization of funds from external sources, but always in very close coordination with the President of the INE.

5. Expected outputs

Various products are expected from the 2017 census. As described below, these can include thematic analysis reports, statistical tables, census thematic maps, documents printed or in electronic media, and databases.

5.1. Thematic analysis reports

1. Evaluation of the census data quality
2. Population structure by sex and age
3. Spatial distribution of the population (including urbanization)
4. Economic characteristics of the population
5. Fertility
6. Mortality (including maternal mortality)
7. Migration
8. Marital status and nuptiality
9. Household and living conditions (including the typology of households)
10. Population projections and prospective study on social needs for education, employment, health, and housing
11. Women in Mozambique
12. Children and youth
13. Population with disability
14. Elderly
15. Demographic atlas
16. Provincial monographs
17. Measure of poverty from census data (including poverty mapping)
18. Literacy, Education
19. Executive summary of the analysis of the main results (including the indicators recommended by international conferences)

5.2. Statistical tables

All the tables must be disaggregated by sex and produced at the level of all administrative subdivisions.

20. Preliminary results of the census (published two months after the data collection)
21. Census priority tables (published two months after the end of data cleaning)
22. Listing of localities (published two months after the end of the data cleaning process)

5.3. Census thematic maps

- 23. Demographic atlas
- 24. Poverty map
- 25. Health map (Contribution)
- 26. Education map (Contribution)

5.4. Printed documents (to be distributed)

- 27. Statistical tables
- 28. Thematic analysis reports
- 29. Posters
- 30. Leaflets/Wall charts/Brochures
- 31. Demographic atlas
- 32. Provincial monographs
- 33. Listing of localities (*Cidade/Vila, Aldeia/Povoação, Zona/Bairro*)

5.5. Documents on electronic media (to be distributed)

- 34. Census main results
- 35. Interactive CD-ROM presenting the methodology and the results of the census
- 36. Website of the census results (with census priority tables, etc.)

5.6. Databases

- 37. Demographic database (including data from previous censuses)
- 38. Cartographic database
- 39. Census database (including the updated master sample for intercensal surveys)
- 40. Integrated programme database (contribution to a database designed for the better implementation and M&E of the activities of the programme, or simply related to the programme management)
- 41. Socio-demographic database (contribution to a multi-sectoral database related to geographic applications with several components)

5.7. Planning, monitoring and evaluation indicators of the national poverty reduction strategy, resolutions, and international and regional conferences

As part of the planning and implementation of the national poverty reduction strategy, a set of demographic and socio-economic indicators has been selected by sector. Since in Mozambique the district and other local government units are the focal point of development, only the census can close the data and information gaps at the lower levels for the purpose of good governance and decentralization.

Most of these indicators will be directly provided by the census not only at the national and provincial levels but also at the lower levels (district and administrative post (*posto administrativo*)).

Poverty Monitoring Indicators

Education

- Literacy rate of population aged 15+
- Gross primary enrollment
- Net primary enrollment
- Girl/boy ratio in primary education
- Girl/boy ratio in secondary education

Health

- Infant mortality rate
- Under-five mortality rate
- Maternal mortality rate
- Life expectancy

Energy

- Proportion of population with electricity in the dwelling unit

Water and Sanitation

- Population with access to safe water
- Proportion of population with access to improved sanitation

Housing

- Proportion of households with access to secure tenure (owned or rented)

Employment

- Ratio of population employed to population of working age
- Unemployment rate

Agriculture and Rural Development

- Heads of livestock per household

Income poverty

- Proportion of working-age population not currently employed

Extreme vulnerability

- Proportion of orphaned children
- Proportion of child-headed households
- Proportion of children in the labor force
- Proportion of children in the labor force and not going to school
- Proportion of elderly living in a household where no one is economically active

World Summit for Children Indicators**Child mortality**

- Under-five mortality rate
- Infant mortality rate

Water and sanitation

- Proportion of population who use a safe drinking water source
- Proportion of population who use a sanitary means of excreta disposal

Education

- Proportion of children entering first grade of primary school who eventually reach grade five
- Proportion of children of primary school age attending primary school
- Proportion of population aged 15+ years who are able to read a letter or newspaper

Preschool development

- Proportion of children aged 36-59 months who are attending some form of organized early childhood education program

Birth registration

- Proportion of under-five children whose births are reported as officially registered

Children's living arrangements

- Proportion of children aged 0-14 years in households not living with a biological parent

Orphans in household

- Proportion of children aged 0-14 years who are orphans living in households

Child labor

- Proportion of children aged 5-14 years who are currently working

Indicators of the Millennium Development Goals (MDGs)

The MDGs, a framework of eight goals, 18 targets, and 48 indicators, are an ambitious agenda for reducing poverty and improving lives that world leaders agreed on at the Millennium Summit in September 2000. For each goal one or more targets have been set, most for 2015, using 1990 as a benchmark. In principle, all the MDGs' indicators are obtained *directly* or *indirectly* from the census. As shown below, most of the indicators of the MDGs will be *directly* provided by the 2017 census at various levels (national, provincial, district, and *posto administrativo*). Although the census will be conducted after the September 2015 MDG Summit, the indicators will still be relevant to whatever goals or targets set for post 2015.

Goal 2. Achieve universal primary education

- Net enrollment ratio in primary education
- Proportion of pupils starting grade 1 who reach grade 5
- Literacy rate of 15-24-year-olds

Goal 3. Promote gender equality and empower women

- Ratio of girls to boys in primary, secondary and tertiary education
- Ratio of literate females to literate males 15-to-24-years old
- Adult literacy rate by sex
- Share of women in wage employment in the non-agricultural sector

Goal 4. Reduce child mortality (and child labour)

- Under-five mortality rate
- Infant mortality rate
- Proportion of children under age 15 who are working

Goal 5. Improve maternal health

- Maternal mortality indicator

Goal 6. Combat HIV/AIDS, malaria and other diseases

- Ratio of school attendance of orphans to school attendance of non-orphans aged 10-14

Goal 7. Ensure environmental sustainability

- Proportion of population with sustainable access to an improved water source, urban and rural
- Proportion of urban population with access to improved sanitation
- Proportion of households with access to secure tenure (owned or rented)
- Number of persons per room

Goal 8. Develop a global partnership for development

- Unemployment rate of 15-to-24-year-olds, by sex and total
- Ratio of population employed to population of working age
- Unemployment rate

Indicators of the NEPAD

These are the same as the MDGs mentioned above, in addition to the following:

- Net primary school enrollment rate by sex
- Ratio of girls to boys in primary school
- Under-five mortality rate by sex
- Maternal mortality ratio

Indicators in the Post (2014) ICPD Plan of Action

- Maternal mortality ratio
- Infant mortality rate by sex
- Under-five mortality rate by sex
- Life expectancy at birth by sex
- Net primary school enrollment rate by sex
- Adult literacy by sex
- Good Governance
- Poverty
- Gender Balance
- Quality of Life
- Human Dignity

5.8. Institutional outputs

- ***Institutional capacity development.*** This is about human resource development in the following domains: geographical information system (GIS); management system of databases; diffusion and dissemination of the outputs/products of census and surveys to support policy dialogue and decision making; demography and statistics, gender statistics; M&E system of national poverty reduction strategy such as PARPA; technical documentation in relation to census activities.
- ***Mainstreaming of gender and HIV/AIDS dimensions.*** Besides the thematic analysis report on Women in Mozambique, which will be mostly dedicated to gender statistics and analysis, all other indicators will be produced systematically by sex as much as possible. They will then partly contribute to the assessment of the progress towards gender equality and women's empowerment. In addition, sessions on gender and HIV/AIDS issues must be incorporated in the census personnel training manuals. Almost 85,000 persons, male and female, will receive specific training in such issues: Central Census Office staff, field staff trainers, provincial officers, district officers, supervisors, enumerators, and drivers.
- ***Importance of the geographic dimension.*** The 2017 PHC will benefit from the comparative advantages that the census has over surveys, while producing the information notably at the lower levels (villages, townships, *postos administrativos*, and districts). In the same way, it will produce thematic maps (the mapping of human or existence poverty in Mozambique, for instance) that will illustrate the different analytical reports. A thematic map illustrates the spatial distribution of data/information regarding one or more themes for the normalized geographical

regions. The map can be of qualitative nature (for example, the main types of dwelling) or quantitative (for example, the variation in population percentage). As far as possible, all the indicators drawn from the 2017 census must be disaggregated by urban and rural at the national, provincial and district levels. Each analyst will identify relevant thematic maps to illustrate his/her report.

6. Census main phases

6.1. Census main phases and activities

A population census is the total process of collecting, compiling, evaluating, analyzing and publishing or otherwise disseminating demographic, economic and social data pertaining, at a specified time, to all persons in a country. The essential features of a population census are individual enumeration, universality within a defined territory, simultaneity and defined periodicity.

The population census is the largest data collection undertaking in a country by a government. Not only does it cover the whole country, but it also provides information on every person, from the newly born babies to the oldest person in the country as well as for nationals and non-nationals.

The census process involves several components which can be grouped into five broad stages:

1. Planning and Management
2. Preparatory Work
3. Field Operations
4. Data Processing
5. Census Products and Dissemination

The 2017 Mozambican census project will require enormous resources – personnel, materials and equipment, transport, etc. just as previous censuses in 1997 and 2007. For this reason, Government commitment and support is essential. Timely disbursement of resources is also essential to ensure adherence to the very tight census schedule of activities.

In order to realize the objectives of the project, a number of interrelated activities will be carried out over the life of the project. These activities will be organized with reference to the census reference date, which is the first day of the period devoted to enumeration activities. Some activities will be initiated and completed before the enumeration; some will be initiated before the enumeration but will carry over through and past the completion of enumeration; some will exist only during the period of enumeration; and others will be initiated only after enumeration has been completed, and may carry on for as little as a few weeks or as much as several months. Completion of the last activity will mark completion of the project.

6.2. Schedule of main census activities.

| MOZAMBIQUE 2017 POPULATION AND HOUSING CENSUS | | | 1 - 15 August 2017 Enumeration | |
|---|---|---|-----------------------------------|------------|
| # | STAGES | COMPONENTS | START | END |
| 1 | PLANNING AND MANAGEMENT | | | |
| | 1.1 | Legal, Organizational, Resource Mobilization | Jan 2015 | Dec 2015 |
| | 1.2 | Establish Central Bureau of the Census (GCR) | July 2015 | July 2015 |
| | 1.3 | Develop Strategic Direction | June 2014 | Dec 2014 |
| | 1.4 | Establish Census Committees | Sep 2015 | Sep 2015 |
| | 1.5 | Establish Provincial and District Census Offices | Aug 2015 | Aug 2015 |
| | 1.6 | Establish Procurement Office | Sep 2014 | Oct 2014 |
| | 1.7 | Capacity Building | Jan 2016 | Dec 2017 |
| | 1.8 | Technical Assistance | Jan 2015 | Dec 2018 |
| 2 | PREPARATORY | | | |
| | 2.1 | Develop Census Operations Strategy | | |
| | 2.2 | Quality Assurance | Jan 2015 | Dec 2019 |
| | 2.3 | Census Communications, Publicity and Advocacy | Jan 2015 | Dec 2019 |
| | 2.4 | Cartography and GIS | Jan 2015 | June 2017 |
| | 2.5 | Questionnaire Design and Pre-tests | Aug 2015 | Aug 2015 |
| | 2.6 | Special Pilot Pre-Test for Scanning Technology | Aug 2015 | Dec 2015 |
| | 2.7 | Printing of Census Documents | Dec 2016 | Mar 2017 |
| | 2.8 | Procurement of Equipment and Materials | Dec 2014 | Dec 2017 |
| 3 | FIELD OPERATIONS (Pilot, Census & PES) | | | |
| | 3.1 | Pilot Census | June 2016 | Dec 2016 |
| | 3.2 | Pilot Post Enumeration Survey | Sep 2016 | Dec 2016 |
| | 3.3 | Recruitment of Field Staff | April 2017 | April 2017 |
| | 3.4 | Training of Field Staff | June 2017 | July 2017 |
| | 3.5 | Storage and Distribution of Questionnaires etc. to Field | May 2017 | June 2017 |
| | 3.6 | Assignment of Tasks and Deployment of Field Staff | July 2017 | July 2017 |
| | 3.7 | Census Field Enumeration | Aug 2017 | Aug 2017 |
| | 3.8 | Retrieval and Storage of Questionnaires from Field | Aug 2017 | Sept 2017 |
| | 3.9 | Post Enumeration Survey | Sept 2017 | Dec 2017 |
| 4 | DATA PROCESSING | | | |
| | 4.1 | Develop Data Processing Strategy | July 2014 | Dec 2014 |
| | 4.2 | Develop Data Processing Operations and Cycles | July 2014 | Dec 2014 |
| | 4.3 | Procure Data Processing Equipment | Dec 2014 | May 2016 |
| | 4.4 | Recruit and Train Data Processing Staff | Sep 2017 | Sep 2017 |
| | 4.5 | Data Scanning | Oct 2017 | Dec 2017 |
| | 4.6 | Edit and Validation of Data | Nov 2017 | Oct 2018 |
| | 4.7 | Post Enumeration Survey Processing | Oct 2017 | Dec 2017 |
| 5 | CENSUS PRODUCTS AND DISSEMINATION | | | |
| | 5.1 | Provisional Results | Oct 2017 | Oct 2017 |
| | 5.2 | Develop Census Products (Analysis, Tabulation, Databases) | Oct 2018 | Dec 2019 |
| | 5.3 | Develop Strategies for Dissemination of Census Products | Nov 2017 | Dec 2017 |
| | 5.4 | National Dissemination | Jan 2019 | Dec 2019 |
| | 5.6 | Launching of Census Atlas | May 2019 | May 2019 |
| | 5.7 | Launching of Mozambique Redatam-based IMIS | July 2019 | July 2019 |
| | 5.8 | Launching of Mozambique Census-INFO CD-ROM | Aug 2019 | Aug 2019 |
| | 5.9 | Development of Sampling Frame | Jan 2019 | Mar 2019 |

7. Census management

During the preparatory stage of the census, activities will include, apart from the day-to-day management of all census tasks, the finalization of the work plan and the budget; the hiring of administrative support staff; the acquisition of office equipment, such as filing cabinets, and of additional space for questionnaire storage and census data processing; the procurement of vehicles, and the set-up of questionnaire archives.

7.1. Administrative arrangements and management

The initial administrative arrangements will include the establishment of: an inter-ministerial census co-ordination council under the auspices of the Ministry of SEN; a Census Office at the INE; and provincial- and district-level census coordinating committees. Key national and international personnel must be recruited and appointed and must assume their duties in good time so that previously-established timetables are not adversely affected.

7.2. Legal basis

The legal basis for the 2017 Mozambique PHC is the Statistical Act Law of the National Statistical System Framework (Law No. 7/96 of 5 June), specified in Article 15, section 4, and in Article 21; and Article 4, section 2, of the Presidential Decree No. 9/96 of 28 August. Both legal documents reaffirm that the executive structure of the Coordinating Council of the General PHC is under the responsibility of the SEN and INE is the executing body. The decennial nature of the census in Mozambique is established under Law No. 12/97 of 13 May.

7.3. Administrative organization

The PHC results are very important for every social and economic group and for entities in both public and private sectors, so the census should be construed as a national effort that utilizes resources on a national scale. The participation of other Ministries, other public institutions, private organizations, and even of private individuals is crucial to the success and credibility of the census.

In order to efficiently utilize the myriad resources that may be available, the census must be organized and executed on a decentralized basis. This requires providing a technical and administrative structure for the census at national, provincial, district, and local levels.

7.3.1. At national level

As was the case for the 2007 census, the Government is expected to establish within SEN a *Conselho Coordenador Recenseamento* [CCRGPH], which will be the entity responsible for the coordination and implementation of the census. If it follows the earlier example, it will be in the form of an inter-sectoral committee whose members will be drawn from various ministries (Planning and Development, Finance, Education, Health, Labour, Agriculture, Public Administration, Defense, Information, and Public Works), the National Institute of Statistics and Eduardo Mondlane University.

In addition, another entity will be created: a Coordinating Council, which will handle policy issues and coordinate activities at the ministerial level to ensure that the census programme is

conducted according to the work plan and is accorded priority status. The Council will consist of high-level representatives of the ministries, chaired by Prime Minister.

7.3.2. At provincial, district, and local levels

In each of the 11 provinces, including the Maputo capital area, will be created a *Gabinete Provincial de Recenseamento* [GPR]. Similarly, a *Gabinete Distrital de Recenseamento* [GDR] will be established in each of the country's 148 districts to advise and assist the *Gabinete Central do Recenseamento* (GCR) in the planning and implementation of the census activities and to support the execution of the census in the field. The composition of the GPR and GDR will be almost parallel that of the GCR, and will include NGOs and other private organizations. At the local level, in each *Posto Administrativo*, the census organization will create a *Gabinete de Recenseamento* for that area.

The technical field unit will consist of the Provincial Census Officer heading the District Census Officers of his/her province; the District Census Officer heading the Census Supervisors of his/her district; the Census Supervisor heading the Enumerators of his/her area of supervision; and the Enumerators, each of whom is responsible for one Enumeration Area (EA).

8. Census logistics

Censuses are today faced with the challenge of national procurement laws and regulations which if not addressed early enough could derail the census calendar and sometimes even lead to significant postponements of activities. It is therefore important that adequate arrangements and plans are made quite early for the procurement, transportation, retrieval and storage of the increasingly large number of materials and personnel needed for a population and housing census.

8.1. Procurement

A range of items from as small as a pencil to as large as a vehicle/truck will have to be procured for the various stages of the 2017 census. The procurement method whether request for quotations (RFQ), national competitive bidding (NCB) or international competitive bidding (ICB) requires different lead times and procedures whether the funding is directly from the Ministry of Finance or UNFPA. Furthermore they have to be embarked upon at different stages of the census process. Another challenge is to ensure that technical staff needed to lead and manage technical activities which drive the census process are not embroiled in procurement issues which though tempting would cause unwelcome diversions and impair the technical integrity of the census. The solution to these challenges will be utilization of the INE's Procurement Unit with additional staffing to handle census procurement issues. The Ministry of Finance will assign officers to this unit to facilitate the procurement process for census items

Some of the procurement components that need to be addressed include:-

- Procurement/rental of census offices for administration
- Procurement of cartography items (4WD Vehicles, GPS, Fuel etc.)
- Procurement of GIS equipment (GPS, Plotters, Printers, Paper, Ink etc.)
- Procurement/Printing of Questionnaires and Manuals
- Procurement of Advocacy and Publicity Materials
- Procurement of Enumeration Materials
- Procurement of Data processing Equipment and materials
- Procurement/Production of Census Results and products for dissemination
- Procurement of Consultants.

A well thought out plan with specific dates for putting out bids, shipment dates and expected arrival of items would ensure smooth 2017 census operations.

8.2. Transport

A major component of the logistics is transport for field teams such as cartographic teams, enumeration teams and sometimes data processing personnel when 24 hr. shifts are being operated.

The challenge with field cartography is getting enough vehicles in time for the field work to start and then funding for fuel and maintenance to ensure adherence to the timeline.

There is the other logistical challenge of transporting enumeration materials (questionnaires, manuals, t-shirts, etc.) to enumerator training sites and the retrieval, packaging and return of completed questionnaires to the data processing site.

In the case of the enumeration, a very large fleet is needed for daily movement of enumeration teams as well as daily supervision of the enumeration especially in rural areas. The first proposal is usually for commandeering of other government vehicles from other departments. This poses a challenge because of reluctance to release vehicles even for a period as short as two weeks by some officers whose personal lives revolve around such government vehicles. In the final analysis, recourse will have to be made to renting private vehicles which requires a huge financial outlay and for which funds should have been budgeted and made available when needed.

Finally the final payment of enumeration field staff after the completion of enumeration may pose challenges if not well planned in advance and may sometimes lead to refusal by some enumerators to hand over completed questionnaires.

8.3. Storage

Large warehouses for receipt of procured items, repacking of such items for distribution and storage of completed questionnaires for data processing are often times not readily available if advance planning has not been carried out to secure such facilities. This could pose a threat to the census timeline and impinge on data integrity if completed questionnaires are not properly stacked and labelled. Protection against fire and floods should also be considered since the completed questionnaires would now be priceless.

Schools which will be the venue for training of enumerators will also be used for the storage of enumeration materials and for the return of completed questionnaires etc. by enumerators. All completed materials will then be transported to a large warehouse in Maputo for final storage and data processing.

8.4. Conclusion

Fortunately for Mozambique, this will be the fourth modern day census and the institutional memory and experiences would preclude a major disaster in the areas mentioned above.

9. Cartography and GIS

9.1. Cartographic work

The cartographic work is the largest pre-census enumeration operation and its success is vital for conducting a quality census. In order to minimize any census coverage errors, the census enumeration areas (EAs) delineated for the census fieldwork should have well-defined and non-overlapping boundaries, and together they should completely cover the territory of Mozambique. Given that the cartographic operation will be conducted over a period of at least 15 months, it is urgent that this activity be planned as early as possible.

The capability of INE for conducting the pre-census cartographic operation has been developed considerably during the past decade based on the experience from the 2007 census, the updating of cartography for the Master Sample based on the census frame, and a programme for developing a digital cartographic database. However, some technical and monitoring assistance is proposed such as periodic missions to be arranged by the UNFPA ESARO in Johannesburg. The INE has also learned from the cartographic problems encountered during the 2007 census and is better prepared to prevent the same problems from occurring again.

The cartography developed for the 2007 census (with some updating in the primary sampling units selected for the Master Sample) will provide the basic frame for updating the census maps. The 2007 census maps will be improved and the delineation of enumeration areas (EAs) will be adjusted based on the changes in the population of each area.

INE will not be submitting a separate project for funding as it did in 2007 for cartographic work but will instead incorporate it into the main census project document.

In terms of a timetable, 2014 will be used to elaborate on the strategy for field updating and digitization of the database and actual field updating of the 2007 EA maps will start around January 2015 and last for between 24 and 30 months depending on the level of detail to be collected and number of teams.

The projected number of field teams is 48 which will be a significant increase over the number of teams (25) used in 2007, and the membership for each team will still be 5 including the Supervisor. Up to 240 personnel may be needed and 50 vehicles.

The field updating strategy for 2017 will be the same as that used in 2007 when a “quick count” of households was carried out within each EA.

The projected number of EAs for 2017 is 60,000, increasing from 45,000 in 2007. Household numbers within each EA will remain largely the same as for the 2007 census with rural EAs having 80-100 households while urban EAs have between 100-120 households. In terms of supervision, for rural areas there will be 1 supervisor for 2-3 EAs and for urban areas 1 supervisor for 3-4 EAs.

EA delimitation will be done in the field during the field update

Quality assurance will be carried out by team supervisors, Provincial supervisors and headquarters cartographic staff.

9.2. GIS

Another important component of the census cartographic programme is developing a digital cartographic data base, which can be used for printing the base maps down to the EA level for the census field operations. This GIS database will also be used later for thematic maps at different geographic levels as well as other types of spatial analysis

All the 2007 EA maps are currently in digitized format and stored within a GIS database. The updating of the GIS database will be done concurrently as information is provided from the field.

As INE moves towards enhancing its digital platform there will be a huge requirement of technical equipment (PDAs, GPS, Laptops, Modems, Plotters, External disks, printers etc.) to enable the updating but more importantly the printing of the EA and Supervisory Area (SA) maps for the field enumeration in 2017 and in the final analysis the production of census results in the form of tables, media and thematic maps.

There is ample space to house most of this equipment within the new INE building. Staff have been recruited who will need training.

Short term technical support missions are also needed to backstop the GIS office.

Now that advanced planning has been carried out for the census cartographic work, it is critical to mobilize the national and donor resources as soon as possible to ensure that this operation is conducted on schedule.

10. Preparation of enumeration and post enumeration documents

Preparation of documents necessary for enumeration and post-enumeration activities should begin early in the pre-enumeration phase of the project. These include, but are not limited to, documents describing census methodology, census questionnaire(s), manuals and control forms, manual editing and coding handbooks, tabulation plans and shells, and analysis and publication plans.

10.1. Enumeration plan and procedures

First priority should be given to deciding questions of enumeration methodology; when this is established, the census team can begin to develop the plans and procedures for carrying out the census. In doing this, INE should review documentation from previous censuses, particularly that of 2007, and take note of any documented problems. The product of this review will be a document describing in detail the objectives of, and the timetable for, each component of the census enumeration phase, up to and including the field operation. This document will be the reference for other activities, such as questionnaire design, manuals development, field organization, and field staff recruiting and training. When the questionnaire has been designed, the census plan and the questionnaire should be submitted to the national census committee [CCRGPH] for approval.

10.2. Questionnaire Content and Design

In finalizing the questionnaire, there should be widespread consultations among the various government ministries and institutions and the wider general public to confirm the relevance of the questions to the current situation. This will increase the ownership of the census process as well as ensure greater use of the census data and results generated.

It is also important that those who will be involved in the analysis such as University Professors be engaged at this stage as well and provided with some remuneration to sustain their interest and cooperation in the census process.

This census, like its predecessors, will be restricted to the enumeration of persons residing within national boundaries. Information on these persons and on the dwellings in which they reside (or not, as is the case with homeless persons) will be collected according to the rules established by the final approved questionnaire design. It is anticipated that the topics will be nearly identical with those included in the 2007 census.

10.3. Manuals

It is necessary to develop a manual for each category of field personnel, as well as for the important activities of the census. Each manual should be drafted by a professional staff member with knowledge of the topic, and should be reviewed both by the drafter's supervisor(s) and by potential users of the manual. When the manual is considered to be in usable form, it should be tested, like the questionnaire, during the Pilot Census and any deficiencies should be corrected in time for use during the full census.

Manuals for the field operation should be prepared for the Census Enumerator, for the Supervisor, for the District Officer, and for the Census Provincial Officer. All manuals should include detailed information on the responsibilities attached to each position, the

procedures that should be followed in carrying out job responsibilities, as well as information on quality and operational control matters. Manuals to be used in training enumerators and supervisors must be developed, with the collaboration of the Census District Officers, who will be administering the training. Verbatim training is preferred, but is not always feasible.

Manuals for Census District and Provincial Officers should include administrative guidelines and descriptions of all procedures for which these Officers will be responsible.

10.4. Control forms

The multiplicity of operations that must be managed simultaneously makes it imperative to have appropriate control forms and procedures, for both quality and operational control. Each operation must be analyzed to determine the information that is needed to manage the activity and to produce informational reports. For example, during the enumeration, each Supervisor will have responsibility for an average of four Enumerators, each of whose work should be closely reviewed on a daily basis, if possible, but not less than three times a week. The Supervisor should use appropriate control forms to keep records of such reviews, and the forms should make it easy for the Supervisor to note both deficiencies and excellences in the Enumerator's performance, as well as objective information such as the number of households interviewed, persons enumerated, etc. The Enumerator should also be maintaining complementary forms recording daily activity, if for no other reason than to justify payment of wages. The census organization will determine the types and contents of the control forms according to the needs of the specific operations.

If possible the control forms for the supervisors should be combined into a sort of booklet which should be completed by each supervisor and returned as evidence of his monitoring and supervision. This record could include timetable of visits to each enumerator, assessment of observed interviews, provisional result summaries for each enumerator etc.

There should also be a control form for the enumerator to confirm coverage of dwellings/households listed from the cartographic field updating of EA maps. This will be in addition to the dwelling stickers which will be affixed to dwellings indicating the status of enumeration in households within the dwelling.

11. Census advocacy and publicity

The major aim of any census Advocacy and Publicity programme is to ensure that all stakeholders who include the national government, development partners, policy makers, opinion leaders, civil society and the general public are made aware of the planned census, its value, expectations and more so their respective roles.

11.1 Census advocacy

The Census Advocacy programme is geared towards lobbying for support, commitment and defining positions of the different Stakeholders towards the 2017 census. The key aim of this programme is to enhance Government commitment, mobilization of resources, articulation of the roles of different stakeholders, aligning their support and participation.

The stakeholders categorized under Government, Civil Society, Private Sector, Development Partners and the media, will be engaged through workshops, courtesy calls and meetings.

11.2. Census publicity

Census publicity will be undertaken to ensure cooperation and participation of the different stakeholders and the general public during the entire census project. The key aim of this programme is to increase public knowledge, awareness, support and participation in the census programme. The target audience will be reached through publicity tools, materials and the Media.

The publicity campaign will cover the full period of the census, and will therefore continue, albeit with different emphasis, through the duration of the census project and will terminate with the publication of census analytical reports. Specific programmes should be developed for each major phase of the census: preparatory work (including cartographic field work), census enumeration (Pilot and full), preliminary results, full results, dissemination of analytic work.

11.3 Advocacy and publicity activities

Activities that will be embarked upon to ensure a massive participation of the general public will include:-

- Advertising campaign using all media and personal communication
- Training of media personnel on census issues
- Brochures targeting specific groups
- Televised debates; interviews with public figures, politicians, sportsmen, religious leaders, academics, community leaders etc.
- Mobilization of congregations at religious meetings
- Athletics meets
- Census song
- Community theatre
- Posters
- Comic books
- Advertising messages produced in mother tongue
- Promotional items like scarves, cups, plastic bags, shirts, caps etc.

11.4. Advocacy and publicity unit

A census advocacy and publicity unit will be established at the Central Census Office (GCR) in INE headquarters and will be headed by a Manager. This officer's responsibility will be to organize and coordinate the preparation and implementation of an advocacy and publicity programme that will be appropriate for all communities within the national territory.

In addition, the Provincial- and District-level *Gabinetes de Recenseamento* will act as Census Communications Committees at sub-national levels. These committees will work in close collaboration with the Central Census Office and with any other national or sub-national entities that will be needed to carry the message of the census to the public.

12. Pre-tests and the pilot census

12.1. Census tests

Some items which were not present in the 2007 census will be included in the 2017 census questionnaire. In addition, conditions in the country have changed considerably in the preceding decade. It is therefore essential that new items, as well as the procedures that will be carried out during the field work, be thoroughly tested and the results evaluated before making any documents, including the questionnaire, final. There should be, at a minimum, a pre-test of the questionnaire for evaluation of question presentation, and a Pilot Census, to apply a reality test to the theoretical planning that has been done. Each of these experiences should be evaluated to understand the implications of their success or failure for the full census.

12.2 Questionnaire pretest

The first field test will deal only with the test of the census questionnaire and the instructions and procedures related to its completion. It should be conducted as soon as feasible, preferably not later than 18 months before the full census enumeration (and six months prior to the Pilot Census). This pretest will require the INE to carry out interviews in areas representative of the country as a whole, taking into account any significant cultural variations within the country that might affect receptivity to, or comprehension of, a given question. The objective of the exercise will be to observe and document any problems with question wording or sequence, or with the definition of concepts. Based on the type of problem observed (if any), census staff may need to modify the questionnaire, the instructions, training materials, or any combination of these documents. Such modifications may also affect the table plans and the data processing activity.

However, the format of the questionnaire will be drastically different from that used in 2007, because the questionnaires must be machine-readable. It is therefore imperative that both the questions themselves be pre-tested, and that the new format also is pre-tested. A special Pre-Test should therefore be undertaken in 2015 to test the questions and the scanning format since this will be the first time the format is being used for a census in Mozambique. This special Pre-test will allow INE to learn about the scanning technology and associate methodologies in time to make changes, including changes in the company that will be contracted to provide the scanning solution.

12.3 Pilot Census

The Pilot Census is being planned for August 2016 to test all of the census field and office operations, forms, manuals and procedures. It will also cover all of the post-enumeration activities, such as the collection and checking of enumeration materials, manual processing of questionnaires and the entire data processing system. The preparation stage of this specific activity will include the selection of sample areas to be enumerated, the recruitment and training of various field staff, and the packing and distribution of materials for enumeration areas to the field. Conducting the Pilot Census one year prior to the main census will allow sufficient time for a comprehensive evaluation and improvement of all census forms and procedures based on the results of the Pilot Census.

The Pilot Census should be carried out in a purposive sample of areas, selected to represent different types of urban and rural housing and population characteristics (including both high- and low-density segments), as well as different types of operational concerns (e.g., hard-to-access areas). The staff to be recruited at all levels will correspond to the types of personnel that will be used in the full census; this will provide a realistic test of the adequacy of the training and manuals.

It is not necessary to have a probability sample for the Pilot Census, given that no national inferences will be made from the data. One approach used in some countries is to select a few administrative areas such as *Postos Administrativos* in both predominantly urban and rural areas, in order to test all the different levels of management, supervision and operational control during the Pilot Census.

It is important to have a comprehensive evaluation of the Pilot Census results so that the forms, manuals and procedures can be improved prior to the 2017 Mozambique census. The results from the Pilot Post-Enumeration Survey (PES), to be conducted about one month following the Pilot Census, can be used as part of the pilot census evaluation.

Full analysis of the results of the Pilot will give a very good idea of the quality of the results and can indicate if and where changes need to be made to the questionnaire content before the 2017 census.

12.4. Pilot Post-Enumeration Survey

A Pilot Post-Enumeration Survey (PES) will be conducted one month following the Pilot Census (in September 2016) in a sub-sample of the enumeration areas covered in the Pilot Census, to fully test all of the PES operations, forms and manuals. It is especially important to test the matching operation between the Pilot Census and PES questionnaires in order to finalize the matching procedures.

Another important aspect of the Pilot PES is that it will provide a very useful tool for evaluating the Pilot Census. Since the Pilot PES is a type of re-interview, it will provide results on response error for several census questions, which will be useful in determining where improvements are needed in the wording of questions or in the training and manuals. It also provides an early indication of any coverage problems resulting from the census enumeration procedures, so that improvements can be made.

13. Enumeration

13.1. Recruitment of field staff

As in previous censuses, advertisements will be put out over the media for the various categories of field staff needed for both the pilot census and the main census enumeration. Shortlisted candidates will then be invited for training at the end of which there will be an examination to select field staff while retaining a reserve of staff to replace others in the field in case of illness, bad performance or abandonment of positions.

The Provincial and District Officers will be appointed at the provincial and district level. The field staff trainers will be selected among university students. The training of Provincial Officers and field staff trainers will take place in Maputo, while the training of Supervisors and Enumerators will be conducted in the provinces and districts. Personnel expected to be trained include: 12 Provincial Officers (two for Maputo), 148 District Officers, and 3,000 trainers (of whom 2,500 will effectively be used for supervision of training and enumeration, and 500 will remain as back-up staff), and 81,000 candidates for Supervisor and Enumerator posts (of whom 65,000 Enumerators and 13,000 Supervisors will be operational and 2,500 Enumerators and 500 Supervisors will be on reserve as back-up staff).

13.2. Training of field staff

The bulk of the field staff will be trained in school facilities so there will be an agreement with the Ministry of Education for schools to be on vacation so the, staff, students and facilities can be used.

Furthermore the training will cascade from training of trainers all the way down to the training of enumerators with one stage following the other. There will be five stages of training:-

- STAGE 1** Training of trainers at Regional level (3)
- STAGE 2** Training of trainers at Provincial level (11)
- STAGE 3** Training of trainers at District level (148)
- STAGE 4** Training of Supervisors at posto level
- STAGE 5** Training of Enumerators at Locality level

Following the end of training, the teams will be deployed to their localities for the verification of EA boundaries and the start of field enumeration

13.3. Enumeration activities

The main census enumeration is the second, and most important, phase of the census programme. It will involve canvassing all housing units and persons in the country. The exercise will be undertaken by trained enumerators using census questionnaires and related forms prepared and tested during the preparatory stage of the census. The challenge for this census is that this is the first time scanning forms will be used in the field so special attention will have to be paid to the handling, shading and writing on these specialized forms to ensure easy machine reading at the data processing stage.

The enumeration procedures used in the 2007 census based on house-to-house canvassing will be repeated. EAs have been designed so that one Enumerator can completely cover all housing units and persons in the time allotted for the enumeration. Each Supervisor will, on average, control the work of five Enumerators; it is expected that Supervisors will monitor closely the work of Enumerators in the area for which they are responsible. Procedures will be in place to remove an Enumerator whose work is deficient in any way and to replace that person with a back-up Enumerator. In this way the quality of the field work can be maintained.

Special arrangements will be made for the enumeration of some categories of the population, such as transients in hotels, boats, or camp sites, or people living in institutions or other collective quarters. The population will be covered on a *de facto* basis, but the questionnaire will permit identification of the *de jure* population as well.

The Census Reference Date will be in August 2017, the same month used for the 2007 census. August is a relatively dry month (climatically speaking), and scheduling the census for this period will also permit the use of teachers and senior students who will be on school vacation at that time.

14. Post-enumeration field activities

The post-enumeration activities constitute the final phase of the census programme; the objective of this phase is to transform the information collected during the census enumeration into statistical tables and reports that will permit wide and effective use of the information. Major activities in this phase are the field operation clean-up; data processing; tabulation; evaluation and analysis of the data; and publication, dissemination and utilization of census results.

14.1. Post-enumeration field activities

After completion of the enumeration *per se*, the census organization must assemble all documents for transmission to the main processing site, and then close down the field operations. In selected areas, where the Post-Enumeration Survey will be conducted, field facilities may remain open until the completion of this work.

14.1.2. Physical checking and forwarding of census documents to GCR

The questionnaires completed during the enumeration, and other census documents and control forms, will be collected from the Enumerators and reviewed by the Supervisors. The physical checking of completed questionnaires and other census documents and control forms should be jointly undertaken by the enumerators and supervisors. Similarly the checking at the next higher level should be done jointly as well. This will ensure that personnel are released and recommended for final payment after thorough and complete checking and avoid recalling personnel to come back and correct mistakes.

This review will include checking the preliminary totals (housing units, households, persons by sex and by residency status) previously prepared by the Enumerator. They will then be transmitted to the District Offices, where forms from each Supervisor area will be checked and passed to the Provincial Census Office. At this point, all forms, accompanied by appropriate control forms, will be transported to the main processing site at the GCR. Proper completion and checking of the summary forms will permit the release of provisional totals in a short period (1-2 months) after the completion of enumeration.

14.2. Census Post-Enumeration Survey (PES)

As part of the census evaluation program, the INE will conduct a PES. The main objective of the PES will be to evaluate the coverage of households and persons in the census enumeration. If a matching methodology is used for the PES, it will also be possible to evaluate content (response) error. The PES will involve an independent enumeration of all the households and persons within the boundaries of a national sample of EAs. It will be undertaken about a month following the census enumeration (that is, in September 2017), after completed census questionnaires are collected from the census enumerators and supervisors, in order to ensure, as much as possible, operational independence between the PES and the census.

The most effective and accurate PES methodology for evaluating census coverage involves an independent enumeration of the households and persons in a sample of EAs, followed by a two-way matching between the PES and census forms for households and persons, and a reconciliation visit to verify whether persons included in the census but not in the PES were

correctly enumerated and to resolve the matching status of persons with insufficient information. This methodology makes it possible to use dual system estimation procedures to estimate the adjusted total population and the net census omission rate. The PES re-interview data for matched persons can also be used to measure the consistency between the PES and census responses, in order to evaluate the content error. The U.S. Census Bureau manuals on Evaluating Censuses of Population and Housing (September 1985), Design and Implementation of a Post-Enumeration Survey: Developing Country Example (August 1993), and the POPSTAN case study volumes provide detailed descriptions and examples of the PES and dual-system estimation procedures. INE has a copy of the POPSTAN manuals and an electronic version of the other documents. It is very important to test all phases of the methodology in a Pilot PES conducted about one month following the Pilot Census in a sub-sample of EAs, as described in a previous section.

This methodology was originally planned for the 1997 PES and tested in the corresponding Pilot PES. However, the methodology was later changed to rely on direct responses as to whether the household and persons were included in the census in order to avoid the need for a matching operation. INE was concerned that because some of the census EA maps did not have well-defined boundaries, it would be difficult to identify the exact same areas for the PES enumeration following the census. This could result in matching problems that could bias the PES coverage results.

Given the methodological advantages of matching and dual-system estimation, it is recommended that this methodology be used for the Pilot PES. At the same time, the direct questions on whether the household and persons were enumerated in the census can also be included in the Pilot PES questionnaire so that the matching results can be compared to the responses. This will make it possible to evaluate the quality of the direct responses as well as the feasibility of matching in order to finalize the methodology for the 2017 PES.

One method to facilitate the matching procedures is the use of stickers to be placed on each housing unit enumerated during the census; stickers had been successfully used for the 2007 Mozambique Census as part of the quality control procedures for the field operations. The PES questionnaire should include an item to enter the housing unit number from the census sticker (if available). A supplementary procedure successfully used in some countries is to provide the household with a census card that has the same identification information as the sticker, which they can keep in a safe place. In this way if the sticker were lost, it would be possible to ask the household respondent whether they have the census card available. Countries which have used the census sticker information for matching have found that it can greatly facilitate the matching between the census and PES households.

Another consideration for using the more accurate matching and dual-system methodology for the PES is that the census cartography will be improved for the 2017 Mozambique Census. This will make it easier to locate the sample EAs for the PES and for the household surveys based on a new master sampling frame. INE is proposing that the PES sample be designed to provide estimates of the census omission rates at the provincial level, given the importance of reflecting the differential census coverage in any adjustment procedures. Most countries limit the domains for census coverage estimates to the national urban/rural level, and perhaps major regions, given the high cost of doing a quality PES in a larger sample.

In order to obtain reliable PES estimates of the census omission rate at the provincial level, it would be necessary to have a sample of at least 30 EAs per province, and perhaps 50 for

Maputo City. Therefore the preliminary budget for the PES can be based on a national sample of 350 EAs, corresponding to a total of about 35,000 sample households. The budget should cover all the phases of the PES, including developing the forms and manuals, the Pilot PES and evaluation, the PES enumeration, matching operation, reconciliation visit, processing and analysis of the PES results. The final decision on the domains of analysis and sample size for the PES will partly depend on the level of resources available for this evaluation effort. If resources are limited, it is recommended to conduct a smaller PES, and concentrate resources on the quality of the data. In order to provide national estimates of the census omission rate for Maputo City, other urban and rural domains, the PES would only require a sample of about 120 sample EAs, containing approximately 12,000 households.

Based on a review of the PES sampling methodology used in 2007, another issue is the number of sampling stages and the resulting dispersion of the sample EAs. Given resource and operational constraints, a two-stage sample design was used for the 2007 PES, with *Postos Administrativos* selected at the first stage and EAs selected at the second stage. This additional level of clustering decreased the sampling efficiency and the corresponding precision of the PES estimates of the census omission rates. As a result, the confidence intervals for the PES estimates were fairly wide. For the 2017 PES a stratified one-stage sample design is recommended, especially if the sample will be designed to provide provincial-level estimates.

The technical appropriateness and suitability of a PES has to be evaluated within the political context as well to ensure that the results do not open up a “Pandora’s Box” and jeopardize the acceptance of the final census results by all parties.

15. Data processing

For the census proper, all activity that takes place during the post-enumeration phase at the central processing site is part of census data processing. This includes logging questionnaires into the archive control system, manual and computer preparation of data, tabulation and analysis of the data, and generation of final data products. Although fewer people are involved during this phase, carrying out each of the steps in this process requires as much preparation and training of staff as does the actual enumeration. Absolutely critical to the final quality of the data and the success of processing is the existence of, and fidelity to, quality control procedures. Operational control procedures are equally important in guaranteeing that all data are processed and that no data are dropped or duplicated.

All processing, starting with the check-in of forms from the field, will be carried out on a flow basis. Up to the point of consistency editing, a batch will consist of the forms from one EA; consistency editing and tabulation are most effectively carried out using larger data files (district and province level, respectively). This will greatly increase throughput and facilitate operational control. INE will establish the priority schedule of provinces for processing; special procedures must be devised to ensure that the forms from EAs included in the PES are made available without delay for the PES matching operation.

INE has already made the decision that can heavily affect questionnaire design, enumerator recruiting and training, and the quality of the data collected, and which is critical to defining the post-enumeration phase of the census: how to carry out data capture. INE has selected optical scanning. INE will contract a company from outside Mozambique to provide the scanning solution (hardware, software and training). The data will be exported from the scanning system in text format to CSPro (Census and Survey Processing System) for editing, tabulation and dissemination.

15.1. Receipt and check-in of questionnaires and control forms

Proper storage and management of EA containers is critical to efficient post-enumeration activities. Misfiling documents can lead to eventual loss of data. As forms are returned from the Provincial Offices, each container will be vetted for the correct identification and number of forms, per the accompanying control form, and will be logged in to a computerized data base. This control system can be created using CSPro or Access or other programming utility suitable to this function. As each EA is logged in, the system will request the provisional control totals as well. When the EA has been logged in, it will immediately be shelved in its proper location in the storage area. Clearly visible signage will be used to indicate the locations within the storage area of each geographic subdivision, to the level of *Posto Administrativo*. This will make retrieval and storage of documents easier and less prone to error.

15.2. Operational control

An effective operational control system will be critical to the success of the census in terms of ensuring that coverage is complete. It is essential that the geographic control files be created early in the planning phase, so that there will be time for adequate review and update based on the pre-enumeration field work. These files should be based on the information that was used to delineate the EAs and will be used to monitor the flow of documents from the moment they return from the field for check-in until the completion of EA processing. Sub

files generated from the main control files should be used to monitor higher-level processing, such as when EAs are consolidated by *Posto Administrativo*, District, and Province. Using control files with control total counts (housing units, households, population by sex) will ensure that all enumerated entities are included at each step of the processing.

The unit of tracking will be the EA. The questionnaires for each EA will be stored in a container. These containers, in turn, will be stored in a larger container corresponding to a supervisory area. It is imperative that the control system be functional before the return of questionnaires from the field, and that the system be tested during the Pilot Census. If necessary, INE should consider a two-phase check-in system: the first step would be to register the arrival of the EA container so that it may be stored in the appropriate marked location, and the second phase to verify the contents of each container in terms of the number of questionnaires and to ensure that only questionnaires from the specific EA are included in the container. This re-checking before filing in location becomes even more important when the forms are returned to storage from one of the processing phases. It is imperative that, first, persons carrying out these tasks have sufficient space to keep their work materials separate from those of other clerks so that this mixing will not occur; and, second, that persons responsible for returning materials to the storage area be held responsible for ensuring that no questionnaires are misfiled in EA containers. This can be done by insisting that both coding and control clerks review the materials they return, and by penalizing staff who do not carry out the procedures correctly.

15.3. Preliminary results

Preliminary results will be published within two months of enumeration. These are very simple counts (totals) for geographic regions consisting of housing units, households, and persons by sex and residency status. These data will be taken from the summary forms that are filled out in the field by enumerators and their supervisors. Processing these data to obtain these counts is a separate, and very much simpler, operation than processing the questionnaires themselves. INE can prepare a CSPro data entry application for keyers to key in these data from the summary forms with double-key verification. INE can prepare a CSPro Tabulation application to produce the preliminary counts.

This process will require a geographic area file consisting of one record for each geographic unit (*Província, Distrito, Posto Administrativo, Localidade/Vila, Bairro*) as well as one record for each EA. Each record will have the corresponding numeric codes for each level of geography.

15.4. Preparation for data capture

Before the questionnaires for an EA can be submitted to the scanning system, there will be a pre-check of the batch. The questionnaires will be inspected to make sure they are in proper physical condition to be read by the scanner; i.e. that there are no torn, wet, badly wrinkled, or otherwise severely damaged questionnaires. There is generally a sheet of paper generated by the scanning system for each batch, containing the bar-code of that EA. Assuming this is the case, the inspector will make sure this sheet is present and on top.

15.5. Data capture

The data will be captured by way of optical scanning. INE will contract a company to provide the optical scanning solution. This company will determine the details of the scanning

process. It will provide specifications for the paper and inks to be used, the scanners, the network, the computer stations for key corrections, and the storage of scanned images. Depending on the contractual arrangement, the company may provide all necessary hardware on either a purchase or rental basis, or INE may have to purchase some of all of the hardware. The contracted company is expected to provide the software. There are several companies in existence that have experience with census scanning. INE will investigate existing alternatives, noting previous history and performance in other countries.

The format of the questionnaire will be very different from previous censuses. INE, in consultation with the scanning solution provider, will determine which questions will be captured using OMR (optical mark reading) and which will use OCR (optical character reading).

OMR means that the field is represented on the questionnaire as small circles or pairs of parallel dotted lines to indicate the response for each category. For example, Sex could easily be captured using OMR. There would be one mark for male and one mark for female. The enumerator would use a pencil to fill in one of these marks. The advantage of OMR is that the scanner reads this data extremely accurately. Typical accuracy rates are in the range of 99.9%. The disadvantage of OMR is that the marks take up precious space on the questionnaire when there are many categories.

OCR means that the field is represented on the questionnaire as more traditional numeric digits. For example, Age could be captured using OCR. There would be two (or possibly three) digits that the enumerator would write in using the digits 0-9. The advantage of OCR is that it takes up less space on the questionnaire, and is more familiar to enumerators. The disadvantage is that OCR accuracy rates are in the 97% range. This means that approximately 3% of all characters will not be recognized correctly by the machine and will need to be corrected by a human. If OCR fields are used, they should be limited to the digits 0 through 9. If there are text write-in responses (for example Occupation, Industry, geographic names), these would be captured on the image of the questionnaire, but the scanning software would not attempt to translate this writing into character codes.

Optical scanning solutions generally require special printing of questionnaires. Not only must the paper meet certain specifications, but the colored inks, and the precision of the placement of the inks must also meet detailed specifications. Otherwise the scanners may have difficulty in capturing the questionnaire images, and, more importantly, the software may have difficulty in recognizing marks and characters. The scanning solution provider will advise on printing specifications.

When marks or characters on the questionnaire cannot be recognized with sufficient certainty by the scanning software, these fields must be referred to human operators for key correction. The software will track these questionnaires and fields. It will present an image of each such questionnaire to a keyer with the field(s) in question highlighted. The keyer will examine the field and key in the proper value. The software's recognition rates will therefore be very important in determining how many resources (keyers and keying stations) will be required to complete the data capture. The more fields that can be captured by OMR (marks), the fewer corrections will be needed. Conversely, the more fields that are captured by OCR (characters), the more corrections will be needed. Only after all fields in question are resolved by keyers can the captured data be considered complete. The scanning solution provider can advise on the network and key station requirements.

15.6. Export of data from optical scanning system to CSPro

When the scanning software has determined that all EAs for a Distrito have been captured and verified, the system will export the data in ASCII (text) format. The precise format of the data themselves, i.e. the placement of items within records, is critical for the data to be successfully imported into CSPro. INE programmers will create a CSPro data dictionary describing all the details of this data format. Ideally, the scanning software will be able to export the data in exactly this format, so CSPro can immediately read the data as is. If the exported data does not match the CSPro dictionary, then INE programmers must create a program (possibly in CSPro itself) to make the required conversion. This is not a difficult programming task but requires great attention to detail.

An issue that can potentially cause significant problems in data editing is the handling of continuation forms. These arise when the household has more people than the questionnaire has room for. For example, if the questionnaire has room for 8 people, and the household contains 12 people, one form will contain the first 8 people and the continuation form will contain the other 4 people. Problems arise when continuation forms are not properly marked in the field, and when they are physically separated from each other. Ideally, the scanning system software will keep track of these, make sure they are exported together, and export them as a single questionnaire.

15.7. Coding of geography and labor force items

Questionnaire items referring to geographic locations [previous residences] and to labor force information [occupation and industry] will be captured by the Enumerator in literal form. These words (place names, job descriptions, place of work) must be converted to numeric form. This can be done in one of two ways. The final decision will depend on input from the scanning solution provider.

One way is to have staff examine the text on the questionnaire and write in the appropriate numeric code on the questionnaire prior to data capture. Persons carrying out this work will receive intensive training in the coding schemes used for each question; their work will be subject to verification according to the quality control procedures established for this task. A work unit will be a single EA; the clerk in charge of the shift operation will make assignments and will update the operational control system when work is assigned or returned. The system will also be used to maintain quality control and productivity records. Coders whose work is consistently sub-standard will be retrained, assigned to other duties, or dismissed, according to the individual circumstances.

Another way is to employ computer-assisted coding. This means that a software system presents an image of the questionnaire to an operator, who keys in the appropriate numeric code. Persons carrying out this work will also require intensive training in the coding schemes used for each question. The scanning solution provider may be able to provide this functionality.

Either way, this coding is a labor-intensive task which could take months to complete. In the 2007 census, coding was done manually (the first of the two options described above) and caused delays in the data capture and therefore eventually in final publication. In order to avoid these delays, INE can run the coding operation in parallel with the scanning data capture operation. This means the data capture operation will proceed for all fields *except*

those that require coding, and editing of tabulation of those fields can proceed without waiting for the coded fields to be completed. Then when the coded fields are captured, editing of those fields can proceed and the few tables that depend on these them can be produced at a later time.

15.8. Validation (editing and correction) of exported data

After the data are received by CSPro, they must be checked for structural errors and consistency errors. Structural errors include situations such as improper continuation forms and blank records perhaps generated as a result of stray marks on the questionnaire. Consistency errors arise when certain combinations of variables are not valid. Examples include people marked as male with children born, or people marked as 5 years old with university degree. Such errors must be identified and corrected by way of imputation.

This will be done by a set of CSPro Batch Applications. Subject matter specialists will create the specifications for both the edits (what kinds of errors to look for) and for the corresponding imputations (how to correct the data to eliminate the error). These specifications will be given to the CSPro programmers to implement. It is critical that the subject matter specialists and the data processors (programmers) work very closely together, as this will be an iterative process. The programmers will discover gaps in the specifications, which they will have to communicate back to the subject matter specialists for resolution. The edit specification documentation should evolve as the CSPro programs as written, so that in the end they correspond exactly. This process should begin before the pilot census.

The edit specification and CSPro programs will likely change as the pilot data are processed. Unanticipated problems in the data will likely appear. The pilot data will give the editing team valuable information about the problems that do appear, and at what error rates. It will also allow the team to make sure that the imputations are not skewing the data. When the tabulations are produced, other unforeseen problems may show themselves, which may require further adjustments to the edit specifications and programs.

The edits/imputations will be done on a flow basis, and data are exported from the scanning system. When a batch of data has passed through the CSPro Batch programs, the programmers must be sure to examine the output reports to check the errors rates, and imputation frequencies. The output data, which is presumed to be clean, should be passed back through the CSPro Batch programs to make sure no errors are triggered.

15.9. Consolidation of batches to higher-level geographic entities

EA batches that have passed the structural edit must be joined (concatenated) with other EA batches from the same district to form files of sufficient size for the consistency edit. This work will be carried out on a flow basis; as each *Posto Administrativo* (PA) is completed, its EA batches may be joined, and when all PAs in a District are complete, they may be joined to form the district file. Because the automatic correction process employed in the consistency edit requires a large minimum volume of data to function effectively, districts with a relatively small population may be joined to form sub- or full province files.

15.10. Tabulation of edited data

Ideally, census tabulations would be designed by the subject-matter specialists based on the data needs expressed by the user community; the census questionnaire would then be

designed to collect only the information needed for the tabulations. In addition, census costs would be minimized by ensuring that no time is wasted collecting non-essential information. However, in the case of the 2017 census, the questionnaire has mostly been determined beforehand, so the tabulations will be dependent on the questionnaire instead of vice-versa.

Tabulation specifications should take into account the geographic level at which the table will be published. Tables no longer need to be physically reproduced on paper; distribution via electronic media has become an important component of census data dissemination. However, all proposed tables, whether for conventional or virtual publication, should be approved by the GCR. As with other aspects of the census, it is important to review (and update where necessary) the table specifications if any changes are made to the questionnaire as a result of the evaluation of the Pilot Census.

The tabulation phase of production will consist of a series of CSPro tabulation applications, which will produce the tables according to the previously-established specifications. Tables must be carefully reviewed for correctness, both in numbers and in text. The review process will be formalized, so that the subject-matter person responsible for the table series explicitly signs off on the tables. After approval, the tables can be passed to the publication and dissemination groups.

15.11. Creation of backup and user data files

At all times during processing, INE must take care to maintain full back-ups of all versions of the data files. It must always be possible to return to any earlier phase and recover the data as they were before entering that phase. This will ensure consistency in processing. In addition, if INE plans to offer sample data files to users, there should be a system in place that includes an algorithm for selection of sample households to be included in such a data file and another for anonymizing households, to protect census confidentiality.

16. Analysis of Census results

16.1. Analysis and publication plans

It is important to define, as early in the process as possible, the scope of any planned evaluation of the census operation and of the data produced by the census. Once the Pilot Census has been evaluated and the questionnaire established in final form, census management can make detailed plans for the analytic reports and establish a realistic publication schedule.

16.2. Analysis of census results

This is usually one of the challenging stages of the census process and is faced with either dwindling census resources or even neglect especially after the government has received the final census tables. It is therefore important that funding is guaranteed at the outset for this stage and not solicited at the very end.

Subject-matter specialists of the INE, along with experts from local academic institutions and from other government agencies, will carry out thematic analyses of the census results. This will involve evaluation and interpretation of the data as presented in the current census and in comparison with data from prior censuses, where available. Priority will be given to those analyses that will be most useful to Government decision-makers and planners of socio-economic development.

Another important consideration is the fact that there is often heavy reliance on non INE staff to undertake the analysis, such as university professors and outside consultants. The initial arguments for “national service” no longer hold water in these current economic times, so to ensure quality deliverables, adequate financial provision must be made.

Aside from these financial considerations it is also important to engage the Analysts right from the start of the census process from questionnaire content, through pilot census, training of field staff, main enumeration, coding and editing and data processing so they have a feel of the data right from the start. Furthermore methodologies can be developed, bibliography reviewed and analytical frameworks conceptualized as they work with the pilot census data.

16.2. The Census Audience

The diverse nature of the information collected, is indicative of the potential census data beneficiaries/audience. The census audience can be classified with reference to their data requirements at all levels including line ministries, government departments, parastatals, development agencies, private sector etc.

The detailed list of census audience is given below:-

National

- Government Ministries
- Government Departments
- Ministerial Planning Units
- Parastatals & Statutory Bodies

NGOs, CSOs and FBOs
Academic and Research Institutions
Development Partners
Media Houses
Business Community

Sub-national

Region
Province
District
Administrative Posts

16.3. The Census products

Given the above audience, several products have been identified including;

1. Macro data (frequencies and cross tabulations)
2. Micro data
3. Analytical reports (wall charts, articles. etc.)
4. Sampling Frame
5. Census maps
6. Administrative Units

17. Publication and dissemination of census results

17.1. Publication and dissemination of census results

The census project will publish for general use detailed statistical tables, as well as the reports analyzing and interpreting the census data. Publications will be similar to those issued for the 2007 census, and will include special volumes for provinces and for highlights of the census results directed at the general user. In addition, there will be a volume dedicated to a procedural history of the census and its cost.

The magnitude and scope of the census, and the need on the part of users for reliable data on which to base economic and social decisions, make it desirable to increase the types of data products and to facilitate user access to this information. Given this need, INE will generate additional specific tabulations to create products in an electronic format and publications containing graphical representation of the data. At the same time, INE will create a tabulation data bank, by topic, for the different geographic regions of the country. Efforts will also be made, through press releases/conferences and seminars/workshops, to disseminate census results and promote their extensive and effective application.

18. Inter-censal Household Survey Program

18.1. Inter-censal Household Survey Program

Following the 2007 Mozambique Census of Population and Housing, INE developed a master sample for the national household survey program, with some technical assistance from the U.S. Census Bureau. This master sample was used for various national household surveys, including the *Questionário de Indicadores Básicos de Bem-estar* (QUIBB, 2000); *Inquérito Nacional Sobre Saúde Reprodutiva e Comportamento Sexual dos Adolescentes e Jovens* (INJAD, 2001); *Inquérito aos Agregados Familiares* (IAF, 2002/2003); *Inquérito Demográfico e de Saúde* (IDS, 2003); and *Inquérito à Força de Trabalho* (IFTRAB, 2004/2005).

A similar national household survey programme is planned for the decade following the 2017 Mozambique Census of Population and Housing. It is important to plan for an updated master sampling frame to be developed from the 2017 census data and cartographic materials as soon as these become available. The new master sample design should be cost-effective and flexible, to meet the sampling requirements of the various inter-censal national household surveys.

19. Quality assurance

The quality of a Census or Survey is defined as the degree to which its data is fit to be used for the purpose to which it is put. A census is used for many purposes but the main categories are for socio-economic concerns particularly at the local or small area level or for comparison among different areas or sub-populations within the country. Having high quality data is therefore important for planning purposes; to assess the state of the population, or a part thereof; to identify vulnerable populations for service delivery purposes; among many others.

In a National Statistical Office environment, quality can be achieved by following generally accepted statistical practices; consulting users to determine what kind of information is needed; developing instruments (censuses, surveys, administrative data) to obtain estimates that fulfill these information needs; developing procedures to collect, capture, validate, tabulate and disseminate the data collected; and have processes to ensure that each of these steps are executed carefully and that problems that are encountered are dealt with expeditiously, in a professional manner.

19.1 Dimensions of Quality

The key dimensions of quality are:

Relevance: providing the data that users need.

Accuracy: the degree to which the information correctly describes the phenomenon it was designed to measure.

Timeliness: refers to the delay between the reference point to which the data pertains and the date the information becomes available.

Access: making it easy for users to get the information they need in a form that is easy for them to use and, if there is a cost, at a price that they can afford.

Coherence/Interpretability: providing users with information about the underlying concepts so that they understand the data they are using and the way it was produced so that it may validly be compared with similar or related data sets (e.g. census education data and Department of Education data)

In summary Quality is about getting the job done **on time**, within **budget** so that it meets the **specified requirements**.

19.2. Quality Control and Quality Assurance

It is important to point out at this stage that ensuring quality in a census is two pronged with Quality Control and Quality Assurance. The PMBOK Guide defines quality control as, “monitoring specific project results to determine if they comply with relevant quality standards and identifying ways to eliminate causes of unsatisfactory results.” The PMBOK Guide defines quality assurance as, “all the planned and systematic activities implemented within the quality system to provide confidence that the project will satisfy the relevant quality standards.” Further, quality assurance consists of “evaluating overall project performance on a regular basis to provide confidence that the project will satisfy the relevant quality standards” (PMBOK Guide, 2000).

For the 2017 census, the plan is to apply both quality control and quality assurance so that those undertaking operations can regulate and modify their operations while the general populace is assured that all is well.

19.3. Quality Assurance Strategy

This will be developed quite early stating the goal of the quality control plan “to provide information so that timely and appropriate decisions can be made to help modify quickly ongoing census operations with a view to improving both the quality and cost-effectiveness of the census. All activities in pre-enumeration, enumeration and post-enumeration phases of the 2017 census, both in the field and in the office, will be extensively monitored and evaluated by the relevant departments to ensure maintenance of quality standards”.

19.4 Activities for quality assurance

Activities will include the following:-

1. Census management
2. Census logistics
3. Cartography and GIS
4. Preparation of enumeration and post enumeration documents
5. Census advocacy and publicity
6. Pre-tests and the pilot census
7. Enumeration
8. Post-enumeration field activities
9. Data processing
10. Analysis of census results
11. Publication and dissemination of census results
12. Inter-censal Household Survey Program

19.5. Quality assurance team

A Quality Assurance Team (QAT) should be established quite early along with the other census teams and this team could then become a permanent part of the organizational structure of INE for all surveys and censuses being implemented and it should be headed by a very senior statistician.

This is because the implementation of QA may be met with suspicion and limited cooperation probably because the major practitioners had at least two censuses under their belt and confidence that they are infusing enough quality control measures into their activities so that there is no need for a further layer of QA.

20. Monitoring and Evaluation

20.1. Monitoring and Evaluation

The President of INE, Vice-President of Social and Demographic Statistics, Census Director and UNFPA Representative will monitor, on a continuous basis, implementation of the census programme to ensure that the activities are undertaken according to the work plan.

Progress in preparatory activities, especially the mapping, will initially be monitored through monthly meetings of heads of sections of the Census Secretariat. Based on the minutes of such meetings, the Census Director will prepare monthly progress reports and present the same to the *Gabinete Central do Recenseamento* (GCR). The GCR will meet periodically to review the progress and ensure that problems, if any, are urgently solved. In addition, there will be periodic monitoring and advisory missions from UNFPA Eastern and Southern Regional Office (ESARO) Advisers.

Six-monthly project progress reports, prepared by the Census Director, will be submitted to the UNFPA and other Donor Representatives in Mozambique for onward transmission to UNFPA and other Donor Headquarters. Furthermore, there will be an annual Tripartite Project Review (TPR) and finally an evaluation report at the end of the project to determine achievements of the project's objectives.

| Objectives | Indicators of Progress | Means of Verification |
|---|---|---|
| <p>1 By the end of the project, to have improved the knowledge of the main characteristics of the population in the country to better understand the interrelationships of population and development</p> <p>1.1 By the end of the project, to have strengthened national capacities by training national technicians in data collection, data processing, analysis, geographic information systems (GIS), data dissemination and utilization, including census strategic planning and management</p> <p>1.2 By the end of the project, to have improved the timely availability, accessibility and utilization of census outputs or products</p> | <ul style="list-style-type: none"> • # of technicians trained • # of statistical tables on preliminary results of the census published by November 2017 • # of census priority tables published by September 2018 • # and type of thematic analysis reports published by September 2019 • # and type of documents made available on electronic support (CD-ROM, Website) | <p>Six-monthly project reports and mission reports of UNFPA ESARO and US Census Bureau</p> <p>Census data analysis and tabulation plans elaborated</p> <p>Tabulation and analysis reports printed</p> |

| | | |
|--|---|--|
| <p>2 By the end of the project, to have developed the planning, monitoring and evaluation (PM&E) indicators of national poverty reduction strategy, incorporating resolutions and recommendations from international and regional conferences such as Plan of Action of the International Conference on Population and Development (ICPD PoA), Millennium Development Goals (MDGs) and New Partnership for Africa Development (NEPAD)</p> <p>2.1 By the end of the project, to have set up and contributed to databases for the purpose of M&E information systems of different programmes in population and development</p> <p>2.2 By the end of the project, to have made available data, indicators and information for the evaluation of national programmes of population and development in public sector, as of NGOs, private sector and aid programmes from development partners (for example, CCA/UNDAF)</p> <p>2.3 By the end of the project, to have developed indicators that respond to the specific needs of M&E plans as part of global development programmes (national poverty- reduction strategy), sectoral development programmes and aid programmes from development partners</p> | <ul style="list-style-type: none"> • List and type of indicators developed for national poverty reduction strategy M&E plan • List and type of indicators developed for M&E information systems of population and development programmes • # and type of databases established or updated with census data and information • # of thematic analysis reports that included synoptic table of appropriate indicators of international conferences, with an analytical summary | <p>Six-monthly project reports and mission reports of UNFPA ESARO and US Census Bureau</p> |
|--|---|--|

| | | |
|--|--|---|
| <p>3 By the end of the project, to have analyzed demographic and related socioeconomic data/information at the national and sub-national levels, disseminated the analyses through publications, seminars and mass media, and made them available for a better integration of demographic variables into development plans and programmes. These programmes can be global (for example, as part of the national poverty-reduction strategy like PARPA), sectoral, multi-sectoral or bilateral</p> <p>3.1 By the end of the project, to have made available data and indicators or necessary information at geographical levels sufficiently low for the purpose of decentralization policies and good governance, notably for the management of provincial and local (district) development programmes</p> <p>3.2 By the end of the project, to have identified and described groups of population having particular characteristics for the purpose of the definition of social policies and programmes (notably the vulnerable groups, as defined in the PARPA)</p> <p>3.3 By the end of the project, to have elaborated population and socio-economic projections for the purpose of prospective analyses and mid-/long-term planning</p> | <ul style="list-style-type: none"> • # and type of thematic analysis reports published • List and type of indicators available at the local level (province, district, <i>posto administrativo</i>) • Specific thematic analysis report on existence/human poverty • Organized press releases on census data • # of meetings/ consultations with data users | <p>Six-monthly project reports and mission reports of UNFPA ESARO and US Census Bureau</p> <p>Reports of seminars/workshops and press releases</p> <p>Comments and recommendations from seminars on census data/information dissemination</p> |
|--|--|---|

| | | |
|---|--|--|
| <p>4 By the end of the project, to have set up an integrated and geo-referenced system of demographic and socio-economic information for planning and management of development programmes</p> <p>4.1 By the end of the project, to have updated the master sample for intercensal surveys</p> <p>4.2 By the end of the project, to have established an integrated GIS to produce thematic maps</p> | <ul style="list-style-type: none"> • Master sample for intercensal surveys updated and available • Listing of localities (<i>aldeias</i>) published by September 2018 • Number of maps incorporated in census reports • Functional integrated GIS database for rural and urban areas | <p>Six-monthly project reports and mission reports of UNFPA ESARO and US Census Bureau</p> <p>Maps produced for various uses</p> <p>Publications illustrated by maps</p> |
|---|--|--|

21. Census Project Management

21.1. Census Project Management

INE will be the implementing entity for the census project. Execution of the census will be guaranteed by the Mozambican Government in strict collaboration with the UNFPA. When it applies, procedures for disbursing census funds that have come from external sources will be established via a protocol of agreement between the donating entity and UNFPA, in close collaboration with the Government. Activity and financial reports will be produced by the project and transmitted on a semi-annual basis to all the project partners. Tripartite audit meetings will be organized yearly and at the end of the project. A mid-project review will be organized by UNFPA/Maputo in conjunction with the national project management directorate. A final report will be prepared at the completion of all activities and will be submitted to UNFPA, and to the attention of all partners who funded the census through the common basket.

22. Institutional Framework

22.1. Institutional Framework

The legal basis for the 2017 Mozambique Census of Population and Housing is the Law of the National Statistical System Framework (Law No. 7/96 of 5 June), specified in Article 15, section 4, and in Article 21; and Article 4, section 2, of the Presidential Decree No. 9/96 of 28 August. Both legal documents reaffirm that the executive structure of the Coordinating Council of the General Population Census is under the responsibility of the National Institute of Statistics (*Instituto Nacional de Estatística*, INE). The decennial nature of the census in Mozambique is established under Law No. 12/97 of 13 May.

The INE will be the principal Government agency responsible for the implementation of the census project. The INE has been established by the Government of Mozambique as an independent centralized statistical institution with technical, administrative and financial autonomy. The Council of Ministers has oversight of INE through the Minister of Planning and Development.

The INE organizational structure has three major areas: **(1) Central Services; (2) Provincial Delegations; and (3) Central Organs**. These areas are further divided as follows:

The **Central Services** of INE are composed of the following directorates:

- Office of the President;
- Directorate of Integration, Coordination, Direction and External Relations;
- Directorate of National Accounts and Global Indicators;
- Directorate of Sectoral Statistics and Enterprises;
- Directorate of Censuses and Surveys;
- Directorate of Vital and Social, Demographic Statistics;
- Directorate of Administration and Human Resources;

The **Provincial Delegations** are decentralized administrative units of INE, headed by Provincial Representatives under the Office of the President. There are currently 11 **Provincial Delegations**, corresponding to the 11 Provinces of Mozambique, including the City of Maputo.

The structure of the Central Census Organization established for planning and implementing the IV General Census of Population and Housing to be held in 2017 will be the following:

Executive units (*Orgãos de Direcção*):

- Coordinating Council of the Census (CCRGP)
- Central Bureau of the Census (GCR)

Technical units (*Órgãos técnicos*):

- Commission of methods and analysis
- Training commission
- Commission of information and publicity
- Data processing committee
- Commission of cartography and operations
- Census safety commission

Support units (*Órgãos de apoio*):

- Commission of administration and finance
- Secretariat

The functions of each of these units are described in Annex III.

The current distribution of staff within the INE organization is presented in Annex IV

The current distribution of INE staff by level of qualification is shown in Annex V.

23. Recommendations

23.1. Summary of Recommendations

The INE has developed a good capability for planning and implementing the 2017 Mozambique census, based on the experience from the 1980, 1997 and 2007 censuses, followed by a comprehensive national inter-censal household survey programme. Many of the recommendations are already part of the census plans. Detailed recommendations for the different census phases are described in Section 5. The key recommendations for the planning and execution of main census operations are outlined here:

- INE should work to establish the national budget for the 2017 census as soon as possible. This will convince the donors that the Government of Mozambique is making a strong commitment to conducting the census, making it easier to obtain support from the donor community.
- It is important for INE to develop a detailed 2017 census work plan and schedule of activities to ensure that the preparatory stage of each activity begins on time. The dependency of the different operations should be reflected in this schedule.
- INE should begin the pre-census cartographic operation as soon as possible, using available resources. They should make a strong effort to mobilize national and donor resources to implement the census cartography.
- In order to effectively design, test, and implement all the census forms, procedures, manuals, training, and processing activities, INE will need at least four subject-matter technical staff working full-time from the preparatory stage through the publication and dissemination of the census results. The Post-Enumeration Survey (PES) activities will require a full-time sampling statistician, subject-matter technician, and systems analyst. To develop and implement the data processing system for the census, it will be necessary for INE to have a total of seven systems analysts/programmers dedicated full-time to this operation. The new systems analysts should be in place before the CSPro workshop is conducted in Maputo.
- The Post-Enumeration Survey (PES) methodology for evaluating the census coverage and content errors should include a matching operation and dual system estimation in order to obtain more accurate estimates of the census coverage rates. This methodology should be tested in a Pilot PES to be conducted one month following the Pilot Census.

24. Technical Assistance and Training

The technical assistance and training proposed is based on the results of an assessment using the U.S. Census Bureau's Tool for Assessing Statistical Capacity (TASC). The TASC was administered to the managers and senior staff members of INE in April 2014 to help determine the areas that would benefit the most from capacity building assistance. Overall, the TASC revealed that INE in Mozambique enjoys an above average statistical capacity compared to countries at a similar level of development. However, a project as large, infrequent and challenging as the census necessitates the need for additional personnel and increased training. Thus, the technical assistance proposed here is focused on building the capacity of INE staff to design, manage and implement various aspects of the censuses and survey operations, based on the results of the TASC. The technical assistance should always include on-the-job training for INE counterparts.

For the 1997 Census, part of the technical assistance was provided by long-term advisors in census planning and data processing, complemented by short-term missions by different specialists. Technical assistance for the 2007 Census was rendered entirely through short-term missions. Given that INE has developed considerable experience from these censuses and through the planning and execution of a comprehensive national household survey program during the decade that followed, there is no need for long-term advisors. For the 2017 census, the technical assistance and training will be provided mostly through short-term missions by different types of experts at critical periods, from the census preparatory phase through the final analysis, publication and dissemination of the 2017 census results. Although most of these missions will have a short duration of two to three weeks, a few census operations will require a longer technical assistance mission of up to two months during the full census implementation.

INE has decided to use scanning technology for data processing for the first time for censuses and the contract will be outsourced. Given that the census processing system needs to be designed prior to the Pilot Census, short-term technical assistance in data processing should be scheduled beginning in early 2015 to assist INE with this effort, especially mapping. A longer (two-month) mission by a data processing expert at the beginning of the full census processing operation will ensure that all of the programs and operational control procedures are running smoothly. Technical assistance and training will be required to operate the scanning system for data capture. This assistance will be designed and provided by the scanning solution provider that is contracted. Different experts can assist with a comprehensive evaluation of the Pilot Census results before all the forms, manuals, and procedures are finalized for the main census. In order to design and implement the Post-Enumeration Survey (PES), technical assistance by a sampling expert (mathematical statistician) will be required for specific activities during the preparatory and post-census periods. Additional support by subject-matter specialists is also required for certain census activities.

The following scope of work can be carried out by the UNFPA/ ESARO and U.S. Census Bureau (USCB) through short-term visits, to be scheduled when INE is ready to work on the corresponding activities:

24.1 Pre-Enumeration Assistance

- (1) A geographer will conduct a workshop at INE on the creation of new digital geographic layers, transfer of features and feature attributes (e.g., type of building or landmark) represented on satellite imagery or paper into digital format, loading data into ArcGIS geo databases, and map layer registration and editing. This two-week visit may be scheduled for early 2015.
- (2) A geographer will conduct a workshop for INE managers on map use and applications of geographic data (topic requested by INE) and provide technical assistance with designing and revising the 2014 enumeration blocks. Block design includes best practices to ensure good data coverage of local areas and comparability over time. This two-week visit may be scheduled for 2015.
- (3) A gender specialist will conduct a workshop on sensitizing the INE staff on how gender should be a part of the process of planning a Census- from questionnaire content, recruiting, and fieldwork up until final analysis. This two-week visit may be scheduled in late 2015.
- (4) A geographer will provide technical assistance on any outstanding issues pertaining to developing the GIS maps in preparation for the Census. Focus topics will include completion of census block mapping and use of satellite imagery and techniques for monitoring population changes using imagery to more easily update block maps. This two-week visit may be scheduled for 2016.
- (5) A subject-matter specialist will assist INE during the final phase of the Pilot Census questionnaire design, and in developing control forms for the Pilot Census. This three-week visit could take place as early as February 2016.
- (6) A geographer will provide technical assistance to facilitate and enhance the production of cartographic products that INE will use during enumeration. The geographer will also provide assistance in creating a procedure for the standardization of information gathered in the field that INE intends to re-integrate with the centralized GIS data. This two-week visit may be scheduled for early 2016.
- (7) A publicity specialist will provide technical assistance in adapting the US Census in Schools Program to Mozambique as well as strategizing a publicity campaign to raise awareness for the Census. This two-week visit may be scheduled for 2016.

INE will benefit from assistance in designing the overall data processing system for the census, including the operational and quality control components. The final product should include flow diagrams indicating movement of materials, inputs to and outputs from each phase (data files, reports, data products, etc.), and control measures at each phase. Development of this system design can be accomplished during a four-week technical assistance visit by a computer specialist; implementation of the system design can be carried out over a longer period by INE staff.

Computer specialists can train INE in the use of the CSPro software, Training at INE will permit all interested staff to learn this software. This visit should be scheduled before March 2016, to permit implementation in time for testing in Pilot Census.

A mathematical statistician will assist INE in developing the sample design and methodology for PES to evaluate the coverage and content of the 2017 Census of Population and Housing, and the plans for the Pilot PES. This three-week visit should be scheduled for April 2016.

A survey statistician will assist INE in developing the PES questionnaire, enumerator's manual, matching manual, and the reconciliation visit questionnaire for the Pilot PES. This three-week visit should take place no later than May 2016.

The INE staff responsible for the post-processing dissemination of the data should begin to think about methodologies and media well before any data become available. They should also become aware of the needs of the user community, in terms of the way in which data are made available. Subject matter specialists can conduct a workshop for senior management and the dissemination unit at INE on the best practices of data dissemination. This workshop could serve as a catalyst for the creation of a definitive dissemination program, including the definition of specific products and techniques to be used for making census data available to the public. This three-week workshop should take place no later than May/June 2016 and should be scheduled for a period when the personnel attending will not be distracted by other activities..

24.2 Post-Enumeration Assistance

- (8) A mathematical statistician will work with INE staff in developing quality assurance procedures for different census operations. This visit may be scheduled for three-weeks in June 2016.

A subject-matter specialist will assist INE in reviewing and analyzing the results of the Pilot Census, and making modifications to the questionnaire, control forms, edit, and tabulation specifications as necessary. This three-week visit should be scheduled around January 2017, after all Pilot Census processing is completed.

- (9) After the Pilot Census and the Pilot Post-Enumeration Survey have been carried out and the forms are processed, INE will need assistance in evaluating and analyzing the results of the data processing activities. This visit will include sufficient time to examine the performance of all elements of the processing system so that they may be modified, as necessary, for optimal performance during the full census. In addition, if the results of the Pilot Census imply changes to the questionnaire, these changes must also be reflected in the processing system modules. This four-week visit should be scheduled for approximately the same time as activity (8).
- (10) A mathematical statistician will assist INE in evaluating the results of the Pilot PES, finalizing PES forms and procedures, and selecting the sample EAs for the PES of the full census. This two-week visit can be scheduled for April 2017.
- (11) A mathematical statistician will assist INE in reviewing the results of the PES matching operation, finalizing the forms and procedures for the PES Reconciliation Visit, and finalizing the tabulation plans and estimation procedures for the PES. This two-week visit may be scheduled for November 2017.

- (12) A mathematical statistician will assist INE with the estimation, variance calculation, and analysis of the PES. This three-week visit can be scheduled for April 2018.
- (13) After the full census and the PES have been carried out, the forms have been returned to the main office for processing, and the scanning operation is about to begin, INE will benefit from a visit by processing specialists who can help the INE staff evaluate the quality and productivity of the manual editing and coding operation and with the initial weeks of the scanning operation. The subject-matter specialist can bring an objective eye to the operational and quality control processes, and can indicate where modification of existing procedures might bring about a greater level of quality in the product or might result in improved control over the operations. The data processing specialist will work with the production team to ensure that processing activities are carried out as planned. The subject-matter specialist should plan to arrive about three weeks before the start of the keying operation and stay for three weeks; the data processing specialist should plan to arrive about one week before the start of the data keying operation and will stay for three weeks. This will provide a one-week overlap during which both specialists will work together with INE staff to ensure continued progress.
- (14) Once the scanning has been under way for sufficient time to produce data from at least two provinces, INE will benefit from a visit by a processing specialist who will assist in evaluating the editing process and initiating the tabulation phase. The specialist will help INE staff decide if modifications to the edit specifications and programs will be necessary, and will review the outputs for anomalies that might be due to regional differences. The tabulation programs will be verified and procedures for approval will be tested. This will permit INE, if it so desires, to begin the process of officially releasing data to the public on a flow basis. This four-week visit should be scheduled to occur when data from at least two provinces have been scanned, verified, and checked for structural validity.
- (15) A survey statistician will assist INE in developing a data dissemination program and activities. This two-week visit may be planned for October 2018.
- (16) A mathematical statistician will assist INE in developing the master sample design for the intercensal household survey program. This two-week visit can be scheduled for early 2019.
- (17) A demographer will assist INE with follow-up support on the demographic and thematic analysis of the census data. This three-week visit may be planned for June 2019.
- (18) A mathematical statistician will assist INE in reviewing the implementation of the master sample design, and finalizing the estimation procedures. This three-week visit may be scheduled for mid-2019.
- (19) Geographers will conduct a workshop and provide technical assistance in 3 areas: planning and designing a 2017 Census Atlas, and learning from regional countries' experiences with atlases; online dissemination of maps/geographic data; and integration of maps/geographic data into census publications and products. This two-week visit can be scheduled in early 2019.

- (20) Geographers will provide technical assistance to resolve remaining Census Atlas and online dissemination problems (e.g., data issues, map layout and design) and help INE staff move toward a final Atlas draft. This two-week visit can be scheduled in early 2019.
- (21) The team of demographers will provide technical assistance, including a workshop on demographic analysis, in order to develop the capacity of the INE to analyze demographic data, whether from a census or a survey. Training will emphasize standard direct and indirect techniques for analyzing demographic data and estimating demographic parameters. They will make extensive use of the USCB's Demographic Analysis and Population Projections System (DAPPS). This two-week visit can be scheduled for early 2019.
- (22) Through population projections, future population growth can be anticipated providing necessary information for planning future schooling, housing, health, and social requirements. Toward this end, demographers will provide assistance to the INE on how to develop population projections of the total population by age and sex at both the national and district levels. This two-week visit can be scheduled for 2019.
- (23) A team of demographers will participate in the Census Analysis Seminar and will review the census thematic analysis reports. This three-week visit can be scheduled for approximately August 2019.
- (24) A survey statistician can assist INE in reviewing the implementation of their data dissemination program and making follow-up recommendations. This two-week visit can take place around September 2019.

25. Mozambique Census 2017 Budget

25.1. Analysis of Budget

The cost of the 1997 census was about 17.3 million dollars for a population of 16 million inhabitants. The cost for the 2007 Mozambique census was about US\$38 million for an enumerated population of 20 million. The estimated budget for the Mozambique 2017 Population and Housing Census (PHC) is around US\$82 million.

According to the data available from the UNSD², the average cost of the 2010 Round of censuses in Africa was about US\$2.03 per capita, whereas for Mozambique the cost is estimated to be US\$3.0 per capita for a projected population of 27,128,530 persons in 2017. In addition to the costs in the above budget, the Government of Mozambique will make a substantial contribution by letting the census use the state infrastructure, e.g., through the use of the Government motor pool.

Table 1.
Summary of the budget for the 2017 Population and Housing Census (US\$)

| Components | Year | | | | | Total |
|-------------------------|-------------------|-------------------|-------------------|------------------|------------------|-------------------|
| | 2015 | 2016 | 2017 | 2018 | 2019 | |
| National personnel | 3 822 050 | 3 823 775 | 18 825 954 | 1 714 470 | 525 600 | 28 711 849 |
| International personnel | | 200 000 | 200 000 | 50 000 | | 450 000 |
| | | | | | | - |
| Training | 703 700 | 120 000 | 6 222 000 | 150 000 | 150 000 | 7 345 700 |
| Equipment | 4 455 000 | 4 136 933 | 4 354 086 | 4 833 | 2 500 | 12 953 353 |
| Miscellaneous | 898 000 | 1 306 652 | 6 182 293 | 489 712 | 489 712 | 9 366 369 |
| Outsourcing | 2 367 944 | 4 735 888 | 11 839 719 | 4 735 888 | - | 23 679 438 |
| | | | | | | |
| Total | 12 246 694 | 14 323 248 | 47 624 052 | 7 144 903 | 1 167 812 | 82 506 709 |

Looking at the distribution of the budget by budget categories in Table 2 below, the major costs are National Staff at INE amounting to \$5,810,172 (7.0%), Main Enumeration Costs in the Provinces and Districts amounting to \$10,975,260 (13.3%), Census Staff Training amounting to \$8,547,000 (10.4%), Equipment and Vehicles amounting to \$9,343,353 (11.3%), Cartography and GIS amounting to \$10,189,250 (12.3%) and Data Processing which will be outsourced at a projected price of \$23,679,438 (28.7%) but will in the final analysis depend on the bids submitted and the comprehensiveness of the contract. All the activities listed above account for **US\$69,271,413 or 83.6%** of the total budget

Other census components like Publicity and the Pilot Censuses are covered in the remaining 16.4% of the budget amounting to **USD\$13,235,236**

2 Sources:

3. Projected Census Dates, Funding Requirements and Sources, and Technical Assistance Needs for the 2010 Round of Population and Housing Censuses
Diane Stukel Demographic and Social Statistics Branch United Nations Statistics Division 2008
- 4.

Table 2.**SUMMARY TOTAL BY BUDGET CATEGORY**

| LINE CODE | ACTIVITY/DESCRIPTION OF EXPENDITURE | TOTAL | % |
|----------------------|--|-------------------|------------|
| 10.1.0 | International Staff | 450 000 | 0.5 |
| 10.2.0 | National Staff (Members Of The GCR) | 5 810 172 | 7.0 |
| 10.2.4 | Provincial Bureau Of Census (GPR) | 10 975 260 | 13.3 |
| 20.0.0 | Pilot Census (test of technology) | 1 729 775 | 2.1 |
| 30.0.0 | Pilot Census Test (all processes) | 2 905 900 | 3.5 |
| 40.0.0 | Census Staff Training | 8 547 000 | 10.4 |
| 50.0.0 | Post-Enumeration Census | 188 580 | 0.2 |
| 60.0.0 | Equipment | 9 343 353 | 11.3 |
| 62.0.0 | Office Materials | 442 028 | 0.5 |
| 62.3.0 | Furniture for Editors and Coders and Quality Assurance | 148 450 | 0.2 |
| 70.0.0 | Operations And Maintenance | 2 084 756 | 2.5 |
| 80.0.0 | Printing Documents | 3 602 747 | 4.4 |
| 81.0.0 | Distribution And Return Of Census Materials | 733 000 | 0.9 |
| 90.0.0 | Publicity And Mobilization | 950 000 | 1.2 |
| 100.0.0 | Cartography | 10 189 250 | 12.3 |
| 110.0.0 | Rental And Office Expenses | 727 000 | 0.9 |
| 110.1.3 | Subcontracts For Optical Reading Services | 23 679 438 | 28.7 |
| | | | |
| | TOTAL | 82 506 709 | 100 |

Finally looking at the distribution of the total budget by year in Table 3. It can be seen that the bulk of the census funds are required in the year of enumeration (2017) when USD\$47,121,440 will be needed accounting for 59.12% of the budget. The budget is spread over a five year period (2015-2019) with the following amounts for the years 2015 (\$10,401,694 or 13.05%), 2016 (\$13,873,248 or 17.40%), in 2018 (\$7,144,903 or 8.96%) and finally in 2019 (\$1,167,812 or 1.47%).

Table 3.

SUMMARY BUDGET FOR 2017 MOZAMBIKAN POPULATION AND HOUSING CENSUS BY YEAR

| LINE | | 2015 | 2016 | 2017 | 2018 | 2019 | TOTAL | |
|---------|---|-------------------|-------------------|-------------------|------------------|------------------|-------------------|------------|
| COD | ACTIVITY/DESCRIPTION OF EXPENDITURE | | | | | | | |
| 10.1.0 | International Staff | | 200 000 | 200 000 | 50 000 | | 450 000 | 0.55 |
| 10.2.0 | National staff (members of the GCR) | | 525 600 | 3 044 502 | 1 714 470 | 525 600 | 5 810 172 | 7.04 |
| 10.2.4 | Provincial Bureau of census (GPR) | | | 10 975 260 | | | 10 975 260 | 13.30 |
| 20.0.0 | PILOT CENSUS (test of technology) | 1 729 775 | | | | | 1 729 775 | 2.10 |
| 30.0.0 | CENSO PILOTO (Teste de todos os processos) | | 2 905 900 | | | | 2 905 900 | 3.52 |
| 40.0.0 | CENSUS STAFF TRAINING | 105 000 | 120 000 | 8 022 000 | 150 000 | 150 000 | 8 547 000 | 10.36 |
| 50.0.0 | Post-Enumeration Census | | | 188 580 | 0 | 0 | 188 580 | 0.23 |
| 60.0.0 | EQUIPMENT | 1 845 000 | 1 336 933 | 6 154 086 | 4 833 | 2 500 | 9 343 353 | 11.32 |
| 62.0.0 | Office Materials | | 26 940 | 415 088 | | | 442 028 | 0.54 |
| 62.3.0 | Mobília para Critica-Codifi. e Anal. de Qualidade | | | 148 450 | | | 148 450 | 0.18 |
| 70.0.0 | OPERATIONS AND MAINTENANCE | | 269 712 | 1 275 620 | 269 712 | 269 712 | 2 084 756 | 2.53 |
| 80.0.0 | PRINTING DOCUMENTS | | | 3 602 747 | | | 3 602 747 | 4.37 |
| 8.1.0.0 | Distribution and return of Material Censitário | | | 733 000 | | | 733 000 | 0.89 |
| 90.0.0 | PUBLICITY AND MOBILIZATION | 50 000 | 150 000 | 750 000 | | | 950 000 | 1.15 |
| 100.0.0 | CARTOGRAPHY | 6 148 975.00 | 4 040 275.00 | 0.00 | | | 10 189 250 | 12.35 |
| 110.0.0 | RENTAL AND EXPENSES OF OFFICES | | 12 000 | 275 000 | 220 000 | 220 000 | 727 000 | 0.88 |
| 110.1.3 | Subcontracts for optical reading services | 2 367 944 | 4 735 888 | 11 839 719 | 4 735 888 | | 23 679 438 | 28.70 |
| | | | | | | | | |
| | Annual Total | 12 246 694 | 14 323 248 | 47 624 052 | 7 144 903 | 1 167 812 | 82 506 709 | 100 |
| | % | 14.84 | 17.36 | 57.72 | 8.66 | 1.42 | 100 | |

DETAILED BUDGET FOR MOZAMBIQUE IV POPULATION AND HOUSING CENSUS 2017 (IVRGPH 2017)

| LINE | | GOAL FOR THE YEARS 2015-2019 | | | | | 2015 | 2016 | 2017 | 2018 | 2019 | TOTAL |
|---------|--|------------------------------|--------------|------------------------|------------------|-------------------|-------------------|-------------------|-------------------|------------------|------------------|-------------------|
| COD | ACTIVITY/DESCRIPTION OF EXPENDITURE | MESURMEN T | QUANTIT Y | TIME (DURATION) | UNIT COS T | TOTAL | | | | | | |
| | | UNIT | | | | 2015-2019 | | | | | | |
| 999 | GRAND TOTAL | | | | | 82 506 709 | 12 246 694 | 14 323 248 | 47 624 052 | 7 144 903 | 1 167 812 | 82 506 709 |
| | | | | | | | | | | | | 0 |
| 10 | STAFF OF THE PROJECT | | | | | | | | | | | 0 |
| 10.1.0 | International Staff | | | | | 450 000 | 0 | 200 000 | 200 000 | 50 000 | 0 | 450 000 |
| 10.1.1 | Census planning and Organization consultant | Person/month | 1 | 24 | 10 000 | 240 000 | | 120 000 | 120 000 | | | 240 000 |
| 10.1.2 | Data processing consultant | Person/month | 1 | 15 | 10 000 | 150 000 | | 50 000 | 50 000 | 50 000 | | 150 000 |
| 10.1.5 | Post Enumeration Census Consultant | Person/month | 1 | 6 | 10 000 | 60 000 | | 30 000 | 30 000 | | | 60 000 |
| | | | | | | | | | | | | 0 |
| 10.2.0 | National staff (members of the GCR) | | | | | 5 810 172 | 0 | 525 600 | 3 044 502 | 1 714 470 | 525 600 | 5 810 172 |
| 10.2.1 | President of GCR | Person/month | 1 | 48 | 1 200 | 57 600 | | 14 400 | 14 400 | 14 400 | 14 400 | 57 600 |
| 10.2.2 | Vice President of GCR | Person/month | 2 | 48 | 1 200 | 115 200 | | 28 800 | 28 800 | 28 800 | 28 800 | 115 200 |
| 10.2.3 | Accessors of the GCR | Person/month | 10 | 48 | 850 | 408 000 | | 102 000 | 102 000 | 102 000 | 102 000 | 408 000 |
| 10.2.4 | Heads of the committees of GCR | Person/month | 10 | 48 | 650 | 312 000 | | 78 000 | 78 000 | 78 000 | 78 000 | 312 000 |
| 10.2.5 | Deputy Heads of the committees of the GCR | Person/month | 10 | 48 | 550 | 264 000 | | 66 000 | 66 000 | 66 000 | 66 000 | 264 000 |
| 10.2.6 | Technicians | Person/month | 20 | 48 | 400 | 384 000 | | 96 000 | 96 000 | 96 000 | 96 000 | 384 000 |
| 10.2.7 | Secretariat | Person/month | 4 | 48 | 200 | 38 400 | | 9 600 | 9 600 | 9 600 | 9 600 | 38 400 |
| 10.2.8 | Cartographers | Person/month | 15 | 48 | 300 | 216 000 | | 54 000 | 54 000 | 54 000 | 54 000 | 216 000 |
| | Administration | | | | | | | 0 | 0 | 0 | 0 | 0 |
| 10.2.10 | Chief Administrative | Person/month | 1 | 48 | 2 000 | 96 000 | | 24 000 | 24 000 | 24 000 | 24 000 | 96 000 |
| 10.2.11 | Administrative | Person/month | 2 | 48 | 1 000 | 96 000 | | 24 000 | 24 000 | 24 000 | 24 000 | 96 000 |
| 10.2.12 | Administrative Assistant | Person/month | 2 | 48 | 800 | 76 800 | | 19 200 | 19 200 | 19 200 | 19 200 | 76 800 |
| 10.2.13 | Technicians | Person/month | 2 | 48 | 400 | 38 400 | | 9 600 | 9 600 | 9 600 | 9 600 | 38 400 |
| | Operações | | | | | | | | | | | 0 |
| 10.2.15 | Quality control Supervisor | Person/month | 4 | 24 | 500 | 48 000 | | | 24 000 | 24 000 | | 48 000 |
| 10.2.16 | Croquis Checker | Person/month | 4 | 24 | 300 | 28 800 | | | 14 400 | 14 400 | | 28 800 |
| 10.2.17 | Bucher checker | Person/month | 10 | 24 | 200 | 48 000 | | | 24 000 | 24 000 | | 48 000 |
| 10.2.18 | Digitizer of inputs and outputs of the Warehouse | Person/month | 4 | 24 | 200 | 19 200 | | | 9 600 | 9 600 | | 19 200 |
| 10.2.19 | Materials counter | Person/month | 10 | 24 | 200 | 48 000 | | | 24 000 | 24 000 | | 48 000 |
| 10.2.20 | Driver | Person/month | 4 | 24 | 150 | 14 400 | | | 7 200 | 7 200 | | 14 400 |
| 10.2.21 | Auxiliaries | Person/month | 30 | 24 | 150 | 108 000 | | | 54 000 | 54 000 | | 108 000 |

| | | | | | | | | | | | | |
|---------|--|--------------|-------|----|-----|-------------------|----------|----------|-------------------|----------|----------|-------------------|
| 10.2.22 | Labeler | Person/month | 8 | 24 | 150 | 28 800 | | | 14 400 | 14 400 | | 28 800 |
| 10.2.23 | Paperhanger | Person/month | 10 | 24 | 150 | 36 000 | | | 18 000 | 18 000 | | 36 000 |
| 10.2.24 | Servant | Person/month | 4 | 24 | 150 | 14 400 | | | 7 200 | 7 200 | | 14 400 |
| 10.2.25 | Packer | Person/month | 20 | 24 | 150 | 72 000 | | | 36 000 | 36 000 | | 72 000 |
| | For Supervision and training | | | | | | | | | | | 0 |
| 10.2.27 | Provincial Supervisor | Person/day | 22 | 92 | 100 | 202 400 | | | 202 400 | | | 202 400 |
| 10.2.28 | Initial Facilitator | Person/day | 22 | 92 | 100 | 202 400 | | | 202 400 | | | 202 400 |
| 10.2.29 | Regional Trainer | Person/day | 250 | 58 | 50 | 725 000 | | | 725 000 | | | 725 000 |
| 10.2.30 | Local Trainer | Person/day | 1 500 | 37 | 10 | 555 000 | | | 555 000 | | | 555 000 |
| 10.2.31 | Members of Coordinating Council: 4pessx2vezesx5dias | Person | 8 | 5 | 150 | 6 000 | | | 6 000 | | | 6 000 |
| 10.2.32 | Members Board of the Gab. Cen. Rec. : 2personsx3vezesx7 days | Person | 6 | 7 | 150 | 6 300 | | | 6 300 | | | 6 300 |
| 10.2.33 | Director of GCR.: 7persx3timesx12days | Person | 21 | 12 | 96 | 24 192 | | | 24 192 | | | 24 192 |
| 10.2.34 | Head of Commission 8personsx3timesx14days | Person | 24 | 14 | 80 | 26 880 | | | 26 880 | | | 26 880 |
| 10.2.35 | Deputy Commission: 8personsx3timesx14days | Person | 24 | 14 | 80 | 26 880 | | | 26 880 | | | 26 880 |
| 10.2.36 | Cartographers: 9personsx3timesx16days | Person | 27 | 16 | 80 | 34 560 | | | 34 560 | | | 34 560 |
| 10.2.37 | Admins: 5personsx3timesx10days | Person | 15 | 10 | 80 | 12 000 | | | 12 000 | | | 12 000 |
| 10.2.38 | Supervision of districts: 135pessoasx2vezesx10dias | Person | 270 | 10 | 54 | 145 800 | | | 145 800 | | | 145 800 |
| | For data processing and Coding | | | | | | | | | | | 0 |
| 10.2.39 | Coders | Person/month | 260 | 12 | 160 | 499 200 | | | 124800 | 374400 | | 499 200 |
| 10.2.40 | Coders Supervisor | Person/month | 33 | 12 | 200 | 79 200 | | | 19800 | 59400 | | 79 200 |
| 10.2.41 | Head Of Team | Person/month | 6 | 12 | 300 | 21 600 | | | 5400 | 16200 | | 21 600 |
| 10.2.42 | Tecnitians | Person/month | 6 | 12 | 200 | 14 400 | | | 3600 | 10800 | | 14 400 |
| 10.2.43 | Quality analyst | Person/month | 67 | 12 | 200 | 160 800 | | | 40200 | 120600 | | 160 800 |
| 10.2.44 | Quality Supervisor | Person/month | 11 | 12 | 250 | 33 000 | | | 8250 | 24750 | | 33 000 |
| 10.2.45 | Driver | Person/month | 7 | 12 | 140 | 11 760 | | | 2940 | 8820 | | 11 760 |
| 10.2.46 | Data Entry | Person/month | | | | | | | 0 | 0 | | 0 |
| 10.2.47 | Supervisor of Data entry | Person/month | 23 | 12 | 200 | 55 200 | | | 13800 | 41400 | | 55 200 |
| 10.2.48 | Data entries | Person/month | 200 | 12 | 160 | 384 000 | | | 96000 | 288000 | | 384 000 |
| 10.2.49 | Reviewer Critiques and coding | Person/month | 2 | 12 | 160 | 3 840 | | | 960 | 2880 | | 3 840 |
| 10.2.50 | Driver | Person/month | 7 | 12 | 140 | 11 760 | | | 2940 | 8820 | | 11 760 |
| 10.2.51 | Provincial Bureau of census (GPR) | | | | | 10 975 260 | 0 | 0 | 10 975 260 | 0 | 0 | 10 975 260 |
| | | | | | | | | | | | | 0 |
| 10.2.52 | Chief of staff: since the 4/15/17 | Person/month | 13 | 6 | 350 | 27 300 | | | 27 300 | | | 27 300 |
| 10.2.53 | Education specialist: since the 4/15/17 | Person/month | 13 | 6 | 200 | 15 600 | | | 15 600 | | | 15 600 |
| 10.2.54 | Specialist in Housing: from the 4/15/17 | Person/month | 13 | 6 | 200 | 15 600 | | | 15 600 | | | 15 600 |
| 10.2.55 | Censitário technical: since the 4/15/17 | Person/month | 13 | 6 | 200 | 15 600 | | | 15 600 | | | 15 600 |
| 10.2.56 | Administrative: since the 4/15/17 | Person/month | 26 | 6 | 200 | 31 200 | | | 31 200 | | | 31 200 |

| | | | | | | | | | | | | |
|---------|--|--------------|---------------|-----|-----|------------------|------------------|------------------|-----------|----------|----------|------------------|
| 10.2.57 | Driver: from the 4/15/17 | Person/month | 13 | 6 | 140 | 10 920 | | | 10 920 | | | 10 920 |
| 10.2.58 | District Office of the Census (GDR) | | | | | | | | | | | 0 |
| 10.2.59 | Chief of staff: since the 6/1/17 | Person/month | 164 | 3 | 250 | 123 000 | | | 123 000 | | | 123 000 |
| 10.2.60 | Education specialist: since the 6/1/17 | Person/month | 164 | 3 | 200 | 98 400 | | | 98 400 | | | 98 400 |
| 10.2.61 | Administrative: since the 6/1/17 | Person/month | 350 | 3 | 200 | 210 000 | | | 210 000 | | | 210 000 |
| 10.2.62 | Driver: from the 6/1/17 | Person/month | 164 | 3 | 140 | 68 880 | | | 68 880 | | | 68 880 |
| 10.2.63 | Other staff of the GDR | Person/month | | | | | | | | | | 0 |
| 10.2.64 | Rec. Office Of administrative post (GRPA) | | | | | | | | | | | 0 |
| | | | | | | | | | | | | 0 |
| 10.2.65 | Chief of staff: since the 6/23/17 | Person/month | 450 | 2 | 200 | 180 000 | | | 180 000 | | | 180 000 |
| 10.2.66 | Education specialist: since the 6/23/17 | Person/month | 450 | 2 | 180 | 162 000 | | | 162 000 | | | 162 000 |
| 10.2.67 | Driver: from the 6/23/17 | Person/month | 450 | 2 | 180 | 162 000 | | | 162 000 | | | 162 000 |
| 10.2.68 | Office of executive body of census (OER) | | | | | | | | 0 | | | 0 |
| 10.2.69 | Chief of staff: since the 7/1/17 | Person/month | 2500 | 1.5 | 180 | 675 000 | | | 675 000 | | | 675 000 |
| 10.2.70 | For collecting data (salary) | | | | | | | | 0 | | | 0 |
| 10.2.71 | Office of executive body of Census | Person/month | 164530 | | | | | | 0 | | | 0 |
| 10.2.72 | Interviewers: since the 7/30/17, for 17 days | Person/month | 70000 | 1 | 80 | 5 600 000 | | | 5 600 000 | | | 5 600 000 |
| 10.2.73 | Reserv Interviewers : from o 30/07/17, por 17 dias(5% na GRPA) | Person/month | 2500 | 1 | 80 | 200 000 | | | 200 000 | | | 200 000 |
| 10.2.74 | Guide to census Interviewers: since the 7/30/17, for 3 days | Person/month | 70000 | 1 | 10 | 700 000 | | | 700 000 | | | 700 000 |
| 10.2.75 | Controller: since the 7/30/17, for 19 days | Person/month | 22000 | 1 | 120 | 2 640 000 | | | 2 640 000 | | | 2 640 000 |
| 10.2.76 | Driver: from the 5/1/17, for 4 months | Person/month | 30 | 4 | 140 | 16 800 | | | 16 800 | | | 16 800 |
| 10.2.77 | Driver: from the 7/16/17, for 1 month | Person/month | 164 | 1 | 140 | 22 960 | | | 22 960 | | | 22 960 |
| | | | | | | | | | | | | 0 |
| 20. | PILOT CENSUS (test of technology) | | | | | 1 729 775 | 1 729 775 | 0 | 0 | 0 | 0 | 1 729 775 |
| 20.1 | Training | Persson/day | 120 | 15 | 15 | 27 000 | 27 000 | | | | | 27 000 |
| 20.2 | Data collection | Persson/day | 120 | 15 | 10 | 18 000 | 18 000 | | | | | 18 000 |
| 20.3 | Salaries of Interviewers | Person/month | 120 | 1 | 120 | 14 400 | 14 400 | | | | | 14 400 |
| 20.4 | Data processing | Pessoa/dia | 15 | 15 | 15 | 3 375 | 3 375 | | | | | 3 375 |
| 20.5 | Equipment | | | | | 1 100 000 | 1 100 000 | | | | | 1 100 000 |
| 20.6 | Printing | | | | | 200 000 | 200 000 | | | | | 200 000 |
| 20.7 | Fuel and lubricants | | | | | 120 000 | 120 000 | | | | | 120 000 |
| 20.8 | Maintenance | | | | | 150 000 | 150 000 | | | | | 150 000 |
| 20.9 | Office supplies | | | | | 97 000 | 97 000 | | | | | 97 000 |
| | | | | | | | | | | | | 0 |
| 30 | CENSO PILOTO (Teste de todos os processos) | | | | | 2 905 900 | 0 | 2 905 900 | 0 | 0 | 0 | 2 905 900 |
| 30.1 | Training | Persson/day | 2 000 | 15 | 15 | 450 000 | | 450 000 | | | | 450 000 |
| 30.2 | Data collection | Persson/day | 1550 | 15 | 10 | 232 500 | | 232 500 | | | | 232 500 |

| | | | | | | | | | | | | |
|--------|---|--------------|-------|----|--------|------------------|----------------|----------------|------------------|----------------|----------------|------------------|
| 30.3 | Salaries of Interviewers | Person/month | 120 | 1 | 120 | 14 400 | | 14 400 | | | | 14 400 |
| 30.4 | Data processing | Persson/day | 20 | 30 | 15 | 9 000 | | 9 000 | | | | 9 000 |
| 30.5 | Equipment | | | | | 1 300 000 | | 1 300 000 | | | | 1 300 000 |
| 30.6 | Printing | | | | | 250 000 | | 250 000 | | | | 250 000 |
| 30.7 | Fuel and lubricants | | | | | 250 000 | | 250 000 | | | | 250 000 |
| 30.8 | Maintenance | | | | | 200 000 | | 200 000 | | | | 200 000 |
| 30.9 | Office supplies | | | | | 200 000 | | 200 000 | | | | 200 000 |
| | | | | | | | | | | | | 0 |
| 40. | CENSUS STAFF TRAINING | | | | | 8 547 000 | 105 000 | 120 000 | 8 022 000 | 150 000 | 150 000 | 8 547 000 |
| 40.1 | For management of the Census | | | | | | | | | | | 0 |
| 40.1.1 | Heads of Provincial Offices of the Census: for 10 days | Persson/day | 11 | 10 | 60 | 6 600 | | 6 600 | | | | 6 600 |
| 40.1.2 | Members of the GPRs: for 10 days | Persson/day | 66 | 10 | 60 | 39 600 | | 39 600 | | | | 39 600 |
| 40.1.3 | Heads of Census District Offices : for 10 days | Persson/day | 164 | 10 | 54 | 88 560 | | 88 560 | | | | 88 560 |
| 40.1.4 | Members of the Gdr: for 10 days | Persson/day | 500 | 10 | 54 | 270 000 | | 270 000 | | | | 270 000 |
| 40.1.5 | Heads of GRPAs and OERs: for 5 days | Persson/day | 2525 | 5 | 45 | 568 125 | | 568 125 | | | | 568 125 |
| 40.1.6 | Members of the GRPAs: for 5 days | Persson/day | 450 | 5 | 45 | 101 250 | | 101 250 | | | | 101 250 |
| 40.1.7 | Other members of the provincial governments: for 9 days | Persson/day | 78 | 9 | 45 | 31 590 | | 31 590 | | | | 31 590 |
| 40.2 | For Census Staff | Persson/day | | | | | | | | | | 0 |
| 40.2.1 | Supervisor: for 15 days | Persson/day | 22 | 15 | 5 | 1 650 | | 1 650 | | | | 1 650 |
| 40.2.2 | Initial Facilitator: for 15 days | Persson/day | 22 | 15 | 5 | 1 650 | | 1 650 | | | | 1 650 |
| 40.2.3 | Regional trainer: for 15 days | Persson/day | 250 | 15 | 5 | 18 750 | | 18 750 | | | | 18 750 |
| 40.2.4 | Local trainer: for 15 days | Persson/day | 3500 | 15 | 5 | 262 500 | | 262 500 | | | | 262 500 |
| 40.2.5 | Interviewers : for 15 dias | Persson/day | 70000 | 15 | 5 | 5 250 000 | | 5 250 000 | | | | 5 250 000 |
| 40.2.6 | Controller: for 15 days | Persson/day | 17423 | 15 | 5 | 1 306 725 | | 1 306 725 | | | | 1 306 725 |
| 41. | Short and long-term training in Census | | | | | | | | | | | 0 |
| 41.1 | Demographers (4 people) | Persson | 4 | 1 | 25 000 | 100 000 | | | 50 000 | 50 000 | | 100 000 |
| 41.2 | Arvc-GIS (4 people) | Persson | 4 | 1 | 25 000 | 100 000 | | | 50 000 | 50 000 | | 100 000 |
| 41.3 | Data processing (10 people) | Persson | 10 | 1 | 10 000 | 100 000 | 25 000 | 50 000 | 25 000 | | | 100 000 |
| 41.4 | Data analysis (4 people) | Persson | 4 | 1 | 25 000 | 100 000 | | | 50 000 | 50 000 | | 100 000 |
| 41.5 | Arc Editor (2 people) | Persson | 2 | 1 | 25 000 | 50 000 | 30 000 | 20 000 | | | | 50 000 |
| 41.6 | Methodologies of censuses and Surveys | Persson | 15 | 1 | 10 000 | 150 000 | 50 000 | 50 000 | 50 000 | | | 150 000 |
| | | | | | | | | | | | | 0 |
| 50. | Post-Enumeration Census | | | | | 188 580 | 0 | 0 | 188 580 | 0 | 0 | 188 580 |
| 50.1 | Interviewers: since the 9/1/17, by 15 days | Persson/day | 500 | 1 | 120 | 60 000 | | 60 000 | | | | 60 000 |
| 50.2 | Controller: since the 9/1/17, for 19 days | Persson/day | 164 | 1 | 150 | 24 600 | | 24 600 | | | | 24 600 |
| 50.3 | Data Entry o 01/11/17, for 5 meses | Persson/day | 20 | 5 | 300 | 30 000 | | 30 000 | | | | 30 000 |
| 50.4 | Gasoline: 30vehiclesx20daysx35litros | liters/day | 1050 | 20 | 2 | 34 020 | | 34 020 | | | | 34 020 |

| | | | | | | | | | | | | |
|---------|--|--------|--------|---|--------|------------------|------------------|------------------|------------------|--------------|--------------|------------------|
| 50.5 | Car maintenance: 10 by zone, for 20 days | Unit | 30 | 1 | 1 000 | 30 000 | | | 30 000 | | | 30 000 |
| 50.6 | Office supplies per person: Pens, plastic, | Person | 664 | 1 | 15 | 9 960 | | | 9 960 | | | 9 960 |
| | | | | | | | | | | | | 0 |
| 60. | EQUIPMENT | | | | | 9 343 353 | 1 845 000 | 1 336 933 | 6 154 086 | 4 833 | 2 500 | 9 343 353 |
| 60.1 | Transport | | | | | | | | | | | 0 |
| 60.1.0 | All terrain vehicle: 4 x 4 for Cartography Field Mapping | Unit | 41 | 1 | 45 000 | 1 845 000 | 1845000 | | | | | 1 845 000 |
| 60.1.1 | All terrain vehicle: 4 x 4 Pilot | Unit | 25 | 1 | 45 000 | 1 125 000 | | 1 125 000 | | | | 1 125 000 |
| 60.1.1 | All terrain vehicle: 4 x 4 General Census | Unit | 80 | 1 | 45 000 | 3 600 000 | | | 3 600 000 | | | 3 600 000 |
| 60.1.1 | : 4 x 4 all terrain vehicle Supervision | Unit | 25 | 1 | 55 000 | 1 375 000 | | | 1 375 000 | | | 1 375 000 |
| 60.1.2 | Motorbike | Unit | 222 | 1 | 2 914 | 646 908 | | | 646 908 | | | 646 908 |
| 60.1.3 | Bike | Unit | 2000 | 1 | 140 | 280 000 | | | 280 000 | | | 280 000 |
| 60.2 | Software | | | | | | | | | | | 0 |
| 60.2.2 | MS Office Professional | Unit | 50 | 1 | 210 | 10 500 | | 10 500 | | | | 10 500 |
| 60.2.3 | Antivirus | Unit | 200 | 1 | 70 | 14 000 | | 14 000 | | | | 14 000 |
| 60.2.5 | Software to draw Questionnaire | | | | | | | | | | | 0 |
| 60.3 | Hardware | | | | | | | | | | | 0 |
| 60.3.2 | Switch | Unit | 10 | 1 | 105 | 1 050 | | | 1 050 | | | 1 050 |
| 60.3.4 | CD DVD Duplicator | Unit | 1 | 1 | 2 795 | 2 795 | | | 2 795 | | | 2 795 |
| 60.3.5 | Data-show | Unit | 15 | 1 | 1 000 | 15 000 | | | 15 000 | | | 15 000 |
| 60.3.6 | Photocopier | Unit | 14 | 1 | 6 000 | 84 000 | | 84 000 | | | | 84 000 |
| 60.3.7 | Computer for Data processing | Unit | 150 | 1 | 1 280 | 192 000 | | | 192 000 | | | 192 000 |
| 60.3.8 | Others software | Unit | 10 | 1 | 900 | 9 000 | | | 9 000 | | | 9 000 |
| 60.3.9 | Computador operacional | Unit | 3 | 1 | 700 | 2 100 | | 2 100 | | | | 2 100 |
| 60.3.10 | Laptops | Unit | 25 | 1 | 1 000 | 25 000 | | 25 000 | | | | 25 000 |
| 60.3.12 | Other computers for managers | Unit | 40 | 1 | 1 000 | 40 000 | | 40 000 | | | | 40 000 |
| 60.3.13 | Printer | Unit | 40 | 1 | 500 | 20 000 | | 20 000 | | | | 20 000 |
| 60.3.15 | UPS | Unit | 61 | 1 | 148 | 9 000 | | 9 000 | | | | 9 000 |
| 60.3.16 | Credit for mobile phones | Unit | 200 | 1 | 200 | 40 000 | | 5000 | 30000 | 2500 | 2500 | 40 000 |
| 60.3.18 | Telefax | Unit | 14 | 1 | 500 | 7 000 | | 2 333 | 2 333 | 2 333 | | 7 000 |
| | | | | | | | | | | | | 0 |
| 62 | Office Materials | | | | | 442 028 | 0 | 26 940 | 415 088 | 0 | 0 | 442 028 |
| 62.1 | Packaging Material | | | | | | | | | | | 0 |
| 62.1.1 | Strapping machine | Unit | 4 | 1 | 3 200 | 12 800 | | 12 800 | | | | 12 800 |
| 62.1.2 | Strap for girdling machine | Metro | 80800 | 1 | 0 | 28 280 | | 14 140 | 14 140 | | | 28 280 |
| 62.1.3 | Fire Extinguisher | Unit | 10 | 1 | 210 | 2 100 | | | 2 100 | | | 2 100 |
| 62.1.4 | Fan | Unit | 10 | 1 | 50 | 500 | | | 500 | | | 500 |
| 62.2.1 | Ballpoint Pen | Unit | 122700 | 1 | 0 | 29 448 | | | 29 448 | | | 29 448 |

| | | | | | | | | | | | | |
|---------|---|---------------|--------|----|-----|------------------|----------|----------------|------------------|----------------|----------------|------------------|
| 62.2.2 | Plastic bag: green, 40cmx28cm | Unit | 150000 | 1 | 0 | 9 000 | | | 9 000 | | | 9 000 |
| 62.2.3 | Plastic sleeve | Metro | 70000 | 1 | 0 | 24 500 | | | 24 500 | | | 24 500 |
| 62.2.4 | Cardboard box: 46cmx36cmx35cm time | Unit | 40000 | 1 | 2 | 70 000 | | | 70 000 | | | 70 000 |
| 62.2.5 | Archive box: 33cmx25cmx8cm | Unit | 60000 | 1 | 2 | 96 000 | | | 96 000 | | | 96 000 |
| 62.2.6 | Envelope: color white 31cmx24cm | Unit | 15000 | 1 | 0 | 1 800 | | | 1 800 | | | 1 800 |
| 62.2.7 | Stapler large | Unit | 4 | 1 | 10 | 40 | | | 40 | | | 40 |
| 62.2.8 | Stapler medium | Unit | 10 | 1 | 6 | 60 | | | 60 | | | 60 |
| 62.2.9 | Pen for trainees | Unit | 10000 | 1 | 0 | 2 400 | | | 2 400 | | | 2 400 |
| 62.2.10 | Notebook for trainees | Unit | 100000 | 1 | 2 | 160 000 | | | 160 000 | | | 160 000 |
| 62.2.11 | Ream of A4 paper: ream of 500 sheets | Resma | 300 | 1 | 7 | 2 100 | | | 2 100 | | | 2 100 |
| 62.2.12 | Other | | | | | 3 000 | | | 3 000 | | | 3 000 |
| | | | | | | | | | | | | 0 |
| 62.3 | Mobília para Critica-Codifi. e Anal. de Qualidade | | | | | 148 450 | 0 | 0 | 148 450 | 0 | 0 | 148 450 |
| 62.3.2 | Fixed Chair | Unit | 500 | 1 | 60 | 30 000 | | | 30 000 | | | 30 000 |
| 62.3.3 | Swivel chair | Unit | 15 | 1 | 120 | 1 800 | | | 1 800 | | | 1 800 |
| 62.3.4 | Table | Unit | 85 | 1 | 90 | 7 650 | | | 7 650 | | | 7 650 |
| 62.3.5 | Office table | Unit | 15 | 1 | 320 | 4 800 | | | 4 800 | | | 4 800 |
| 62.3.6 | Bookshelf | Unit | 15 | 1 | 280 | 4 200 | | | 4 200 | | | 4 200 |
| 62.3.7 | Bookcase with shelves of 6 levels | Unit | 400 | 1 | 250 | 100 000 | | | 100 000 | | | 100 000 |
| 62.3.8 | Other Furniture | | | | | | | | | | | 0 |
| | | | | | | | | | | | | 0 |
| 70. | OPERATIONS AND MAINTENANCE | | | | | 2 084 756 | 0 | 269 712 | 1 275 620 | 269 712 | 269 712 | 2 084 756 |
| 70.1 | Fuel and lubricants | | | | | | | | | | | 0 |
| 70.1.1 | Gasoline: 15 Vehiclesx48 months x240liters | liters/month | 6750 | 48 | 1 | 427 680 | | 106 920 | 106 920 | 106 920 | 106 920 | 427 680 |
| 70.1.2 | Gasoline: 21 Vehikclesx48monthsx240liters | liters/month | 6300 | 48 | 1 | 399 168 | | 99 792 | 99 792 | 99 792 | 99 792 | 399 168 |
| 70.1.3 | Gasoline: 80Vehiclesx1monthx1050liters | liters/month | 5740 | 30 | 1 | 227 304 | | | 227 304 | | | 227 304 |
| 70.1.4 | Gasoline: 84Vehicles from other institutionsx1monthx1050 liters | liters/month | 5740 | 30 | 1 | 227 304 | | | 227 304 | | | 227 304 |
| 70.2 | Maintenance and Repairs | | | | | | | | | | | 0 |
| 70.2.1 | Maintenance: 15Vehiclesx20 times | Vehicle/month | 15 | 20 | 350 | 105 000 | | 26250 | 26250 | 26250 | 26250 | 105 000 |
| 70.2.2 | Maintenance: 21 Vehiclesx20times | Vehicle/month | 21 | 20 | 350 | 147 000 | | 36750 | 36750 | 36750 | 36750 | 147 000 |
| 70.2.3 | Maintenance: 80Vehiclesx2times | Vehicle/month | 80 | 2 | 350 | 56 000 | | | 56 000 | | | 56 000 |
| 70.2.4 | Maintenance: 84 Vehiclesx2times | Vehicle/month | 84 | 2 | 450 | 75 600 | | | 75 600 | | | 75 600 |
| 70.3 | Air Tickets (roundtrip) | | | | | | | | | | | 0 |
| 70.3.1 | To Memb. Coord Council. Rec.: 4 pessx2vezes | Unit | 4 | 2 | 500 | 4 000 | | | 4 000 | | | 4 000 |
| 70.3.2 | For Supervisors of the GCR: 35 pessoasx3vezes | Unit | 35 | 3 | 600 | 63 000 | | | 63 000 | | | 63 000 |
| 70.3.3 | For Supervisors of the Provincial Offices: 16pessoasx1vez | Unit | 16 | 1 | 600 | 9 600 | | | 9 600 | | | 9 600 |
| 70.3.4 | For Initial Facilitator: 16peoplex1time | Unit | 16 | 1 | 600 | 9 600 | | | 9 600 | | | 9 600 |

| | | | | | | | | | | | | |
|--------|---|--------|----------|----|--------|------------------|----------|----------|------------------|----------|----------|------------------|
| 70.3.5 | For Regional Trainer: 70 people x 1 time | Unit | 70 | 1 | 600 | 42 000 | | | 42 000 | | | 42 000 |
| 70.3.6 | Administration staff: 5 people x 3 times | Unit | 5 | 3 | 600 | 9 000 | | | 9 000 | | | 9 000 |
| 70.4 | Road fare (roundtrip) | | | | | | | | 0 | | | 0 |
| 70.4.1 | For Regional Trainer: 80 people x 1 time | Unit | 80 | 1 | 350 | 28 000 | | | 28 000 | | | 28 000 |
| 70.4.2 | For supervision of districts: 135 people x 2 vezes | Unit | 135 | 2 | 350 | 94 500 | | | 94 500 | | | 94 500 |
| 70.5 | Charter flight: 6 times | | | | | | | | 0 | | | 0 |
| 70.5.1 | Flights: 6 times | Unit | 6 | 1 | 10 000 | 60 000 | | | 60 000 | | | 60 000 |
| 70.5.2 | Other rental cars: Boats, etc. | | | | | 100 000 | | | 100 000 | | | 100 000 |
| | | | | | | | | | | | | 0 |
| 70.7 | For National Staff | | | | | | | | | | | 0 |
| 70.7.1 | Members of Coordinating Council: 4 people x 2 vezes x 5 dias | Person | 8 | 5 | 150 | 6 000 | | | 6 000 | | | 6 000 |
| 70.7.2 | Members Board of the Gab. Cen. Rec. : 2 people x 3 vezes x 7 days | Person | 6 | 7 | 150 | 6 300 | | | 6 300 | | | 6 300 |
| 70.7.3 | Director of GCR.: 7 people x 3 times x 12 days | Person | 21 | 12 | 96 | 24 192 | | | 24 192 | | | 24 192 |
| 70.7.4 | Head of Commission 8 people x 3 times x 14 days | Person | 24 | 14 | 80 | 26 880 | | | 26 880 | | | 26 880 |
| 70.7.5 | Deputy Commission: 8 people x 3 times x 14 days | Person | 24 | 14 | 80 | 26 880 | | | 26 880 | | | 26 880 |
| 70.7.6 | Cartographers: 9 people x 3 times x 16 days | Person | 27 | 16 | 80 | 34 560 | | | 34 560 | | | 34 560 |
| 70.7.7 | Admins: 5 people x 3 times x 10 days | Person | 15 | 10 | 80 | 12 000 | | | 12 000 | | | 12 000 |
| 70.7.8 | Supervision of districts: 135 people x 2 vezes x 10 dias | Person | 270 | 10 | 54 | 145 800 | | | 145 800 | | | 145 800 |
| | | | | | | | | | | | | 0 |
| 80. | PRINTING DOCUMENTS | | | | | 3 602 747 | 0 | 0 | 3 602 747 | 0 | 0 | 3 602 747 |
| 80.1 | Regular questionnaires: 12 pages | Unit | 635 000 | 1 | 0.30 | 1 905 000 | | | 1 905 000 | | | 1 905 000 |
| 80.2 | Questionnaires for special cases: | Unit | 285 000 | 1 | 0.11 | 31 350 | | | 31 350 | | | 31 350 |
| 80.3 | Post-Enumeration Survey questionnaires | Unit | 51 000 | 1 | 0.10 | 5 100 | | | 5 100 | | | 5 100 |
| 80.4 | Manuals: 11 different | Pages | 438 5961 | 1 | 0.07 | 307 017 | | | 307 017 | | | 307 017 |
| 80.5 | Forms: 21 different | Pages | 273 100 | 1 | 0.20 | 54 620 | | | 54 620 | | | 54 620 |
| 80.6 | Cards: 4 different | Pages | 68 800 | 1 | 0.20 | 13 760 | | | 13 760 | | | 13 760 |
| 80.7 | Tags home recorded and not recorded: 2 different | Pages | 659 400 | 1 | 0.10 | 659 400 | | | 659 400 | | | 659 400 |
| 80.8 | Training plans: 2 different | Pages | 89 200 | 1 | 0.20 | 17 840 | | | 17 840 | | | 17 840 |
| 80.9 | Programme of Courses of Cap: 4 different | Pages | 704 400 | 1 | 0.20 | 140 880 | | | 140 880 | | | 140 880 |
| 80.10 | Exam: 2 different | Pages | 381 900 | 1 | 0.20 | 76 380 | | | 76 380 | | | 76 380 |
| 80.11 | Leaflet for the recruitment of Recenseadores | Pages | 200 000 | 1 | 0.20 | 40 000 | | | 40 000 | | | 40 000 |
| 80.12 | Certificate of participation | Pages | 70 000 | 1 | 0.20 | 14 000 | | | 14 000 | | | 14 000 |
| 80.13 | Preliminary results: 300 publications for 80 pages | Pages | 24 000 | 1 | 0.20 | 4 800 | | | 4 800 | | | 4 800 |
| 80.14 | Final results: 500 publications for 250 pages | Pages | 137 500 | 1 | 0.20 | 275 000 | | | 275 000 | | | 275 000 |
| 80.15 | Monographs: 200 documents 12 publications 120 pages | Pages | 288 000 | 1 | 0.20 | 57 600 | | | 57 600 | | | 57 600 |
| | | | | | | | | | | | | 0 |
| 8.1 | Distribution and return of Material Censitário | | | | | 733 000 | 0 | 0 | 733 000 | 0 | 0 | 733 000 |

| | | | | | | | | | | | | |
|----------|---|--------------|--------|--------|-----|----------------------|---------------------|---------------------|----------------|-------------|-------------|-------------------|
| 81.1 | For the northern provinces: 3 Prov., 10000 boxes | Box | 6000 | 2 | 25 | 300 000 | | | 300 000 | | | 300 000 |
| 81.2 | For the provinces of the Centre: 4 Prov., 13000 boxes | Box | 8000 | 2 | 18 | 288 000 | | | 288 000 | | | 288 000 |
| 81.3 | For the southern provinces: 3 Prov., 7500 boxes | Box | 4500 | 2 | 10 | 90 000 | | | 90 000 | | | 90 000 |
| 81.4 | Distribution and return of Material Censitário | Box | | | | | | | 0 | | | 0 |
| 81.5 | Airway material distribution | Box | 500 | 1 | 90 | 45 000 | | | 45 000 | | | 45 000 |
| 81.6 | Other: by mail, etc. | Box | | | | 10 000 | | | 10 000 | | | 10 000 |
| | | | | | | | | | | | | 0 |
| 90. | PUBLICITY AND MOBILIZATION | | | | | 950 000 | 50 000 | 150 000 | 750 000 | 0 | 0 | 950 000 |
| 90.1 | Production of TV and radio Spot, and impression material | Unit | | | | 450 000 | 50 000 | 100 000 | 300 000 | | | 450 000 |
| 90.2 | Production of t-shirts and caps | Unit | 100000 | 1 | 5 | 500 000 | | 50 000 | 450 000 | | | 500 000 |
| | | | | | | | | | | | | 0 |
| 100. | CARTOGRAPHY | | | | | 10 189 250.00 | 6 148 975.00 | 4 040 275.00 | 0.00 | 0.00 | 0.00 | 10 189 250 |
| | | | | | | | | | | | | 0 |
| 100.1 | National Staff | | | | | 6 384 550 | 3 192 275 | 3 192 275 | 0 | 0 | 0 | 6 384 550 |
| 100.1.1 | Salaries for administrative assistants | Person/month | 2 | 24 | 850 | 40 800 | 20 400 | 20 400 | | | | 40 800 |
| 100.1.2 | Wages for Cartografos | Person/month | 200 | 15 | 300 | 900 000 | 450 000 | 450 000 | | | | 900 000 |
| 100.1.3 | Wages for Supervisors of field teams | Person/month | 40 | 15 | 400 | 240 000 | 120 000 | 120 000 | | | | 240 000 |
| 100.1.4 | Wages for Drivers | Person/month | 40 | 15 | 200 | 120 000 | 60 000 | 60 000 | | | | 120 000 |
| 100.1.5 | Salaries of digitizers of maps | Person/month | 20 | 20 | 400 | 160 000 | 80 000 | 80 000 | | | | 160 000 |
| 100.1.6 | Subsistence costs for Provincial Supervisors | Person/month | 15 | 225 | 50 | 168 750 | 84 375 | 84 375 | | | | 168 750 |
| 100.1.7 | Per diems for the Central Cartographers | Person/month | 15 | 150 | 100 | 225 000 | 112 500 | 112 500 | | | | 225 000 |
| 100.1.8 | Field allowances for cartographers | Person/month | 200 | 450.00 | 30 | 2 700 000 | 1 350 000 | 1 350 000 | | | | 2 700 000 |
| 100.1.9 | Allowances for field Monitoress | Person/month | 40 | 450.00 | 35 | 630 000 | 315 000 | 315 000 | | | | 630 000 |
| 100.1.10 | Subsidies of guides | Person/month | 60000 | 1 | 10 | 600 000 | 300 000 | 300 000 | | | | 600 000 |
| 100.1.11 | Incentives for digitizing | Person/month | 60000 | 20 | 1 | 600 000 | 300 000 | 300 000 | | | | 600 000 |
| | | | | | | | | | | | | 0 |
| 100.2 | Training | | | | | 598 700 | 598 700 | 0 | 0 | 0 | 0 | 598 700 |
| 100.2.1 | Airfares | Unit | 150 | 1 | 600 | 90 000 | 90 000 | | | | | 90 000 |
| 100.2.2 | Land Passages | Unit | 100 | 1 | 20 | 2 000 | 2 000 | | | | | 2 000 |
| 100.2.3 | Subsistence costs (DSA) | Person/day | 250 | 20 | 100 | 500 000 | 500 000 | | | | | 500 000 |
| 100.2.4 | Fuel for training | Liter | 200 | 20 | 2 | 6 400 | 6 400 | | | | | 6 400 |
| 100.2.5 | Guides | Person | 30 | 1 | 10 | 300 | 300 | | | | | 300 |
| | | | | | | | | | | | | 0 |
| 100.3 | Equipment | | | | | 1 510 000 | 1 510 000 | 0 | 0 | 0 | 0 | 1 510 000 |
| 100.3.2 | Equipment for the Central Unit and GIS | | | | | 450 000 | 450 000 | | | | | 450 000 |
| 100.3.3 | Other miscellaneous supplies (Tents, sleeping bags, lanterns, metal rules, clipboards, pens, etc. | | | | | 380 000 | 380 000 | | | | | 380 000 |
| 100.3.4 | Cartografica update equipment | | | | | 680 000 | 680 000 | | | | | 680 000 |

| | | | | | | | | | | | | |
|-----------|---|-------|------|-----|--------|-------------------|------------------|------------------|-------------------|------------------|----------------|-------------------|
| | | | | | | | 0 | | | | | 0 |
| 100.4 | Operations and maintenance | | | | | 1 696 000 | 848 000 | 848 000 | 0 | 0 | 0 | 1 696 000 |
| 100.4.1 | Fuel | Liter | 1600 | 450 | 2 | 1 152 000 | 576000 | 576000 | | | | 1 152 000 |
| 100.4.2 | Maintenance | Unit | 40 | 17 | 800 | 544 000 | 272000 | 272000 | | | | 544 000 |
| 100.4.3 | printing of maps | | | | | | | | | | | 0 |
| | | | | | | | | | | | | 0 |
| 110.1.3 | Subcontracts for optical reading services | | | | | 23 679 438 | 2 367 944 | 4 735 888 | 11 839 719 | 4 735 888 | 0 | 23 679 438 |
| 110.1.3.1 | Software licensing for reading optica, Scanning and Optical recognition | | | | | 1 733 710 | 173371 | 346742 | 866855 | 346742 | | 1 733 710 |
| 110.1.3.2 | Read related equipment (servers, network system, workstations, scanners, printers, security system and access control including all the gear on the Census Central Office | | | | | 8 987 241 | 898724 | 1797448 | 4493621 | 1797448 | | 8 987 241 |
| 110.1.3.3 | Professional services of Cosultoria for operating and monitoring the Data Processing Management (design and analysis of processes, development and maintenance of software, installation services scan services and processing since the tests Pilots until the completion of the census processing | | | | | 10 020 916 | 1002092 | 2004183 | 5010458 | 2004183 | | 10 020 916 |
| 110.1.3.4 | Travel expenses and consultants ' stays for the monitoring and management of data processing since the tests pilots until the completion of the census processing | | | | | 2 937 570 | 293757 | 587514 | 1468785 | 587514 | | 2 937 570 |
| | | | | | | | | | | | | 0 |
| 110. | RENTAL AND EXPENSES OF OFFICES | | | | | 727 000 | 0 | 12 000 | 275 000 | 220 000 | 220 000 | 727 000 |
| 110.1 | Rental of Warehouses (8000 m2) | Unit | 1 | 24 | 13 000 | 312 000 | | 12 000 | 100 000 | 100 000 | 100 000 | 312 000 |
| 110.2 | Hire 11 warehouses in Províncias (700 m2) | Unit | 11 | 5 | 1 000 | 55 000 | | | 55 000 | | | 55 000 |
| 110.3 | Electricity costs: 2 cabinets | Unit | 2 | 24 | 2 800 | 134 400 | | | 44 800 | 44 800 | 44 800 | 134 400 |
| 110.4 | Expenditure of water: 2 cabinets | Unit | 2 | 24 | 1 300 | 62 400 | | | 20 800 | 20 800 | 20 800 | 62 400 |
| 110.5 | Telephone and fax expenses: 2 cabinets | Unit | 2 | 24 | 3 400 | 163 200 | | | 54 400 | 54 400 | 54 400 | 163 200 |
| | | | | | | | | | | | | |

Annex I. Detailed Work Plan for 2017 Population and Housing Census

| | Task Name | Start Date | Wks | Responsible Party(ies) | Place | Output | |
|----------------------------------|--|-------------|-------------|------------------------|---|---------------|---|
| <i>I PLANNING AND MANAGEMENT</i> | | | | | | | |
| | | | | | | | |
| A | <i>Establish Central Bureau of the Census (GCR)</i> | <i>July</i> | <i>2015</i> | <i>3</i> | <i>Ministry of Planning and Development</i> | <i>Maputo</i> | <i>Minutes of Meeting</i> |
| 1 | Assess availability of existing space. | | | | | | |
| 2 | Develop organizational chart | | | | | | |
| 3 | Design key reporting system | | | | | | |
| 4 | Monitor activities | | | | | | |
| 5 | Procure office furniture. | | | | | | |
| 6 | Procure office Equipment | | | | | | |
| 7 | Procure office consumables | | | | | | |
| 8 | Procure Vehicles | | | | | | |
| | | | | | | | |
| B. | <i>Appoint Census Manager</i> | <i>July</i> | <i>2015</i> | <i>3</i> | <i>GCR</i> | <i>Maputo</i> | <i>Letter of Appointment</i> |
| 1 | Prepare short list of candidates | | | | | | |
| 2 | Interview candidates | | | | | | |
| 3 | Initiate recruitment and appointment process | | | | | | |
| | | | | | | | |
| C | <i>Appoint Technical and Admin. Staff</i> | <i>Aug</i> | <i>2015</i> | <i>2</i> | <i>GCR</i> | <i>Maputo</i> | <i>Letters of Appointment</i> |
| 1 | Prepare short list of candidates | | | | | | |
| 2 | Follow selections process | | | | | | |
| 3 | Initiate recruitment or appointment process | | | | | | |
| | | | | | | | |
| D | <i>Prepare Legal Basis</i> | <i>Jan</i> | <i>2015</i> | <i>2</i> | <i>Director of Census and Surveys</i> | <i>Maputo</i> | <i>Confirmation Letter from Legal Authority</i> |
| 1 | Coordinate with the issuing authority for the legal basis for the census | | | | | | |
| | | | | | | | |
| E | <i>Research on Past Census Experience</i> | <i>Aug</i> | <i>2014</i> | <i>4</i> | <i>Director of Census and Surveys</i> | <i>Maputo</i> | <i>Materials produced</i> |
| 1 | Compile materials from past censuses | | | | | | |
| 2 | Prepare reports on lessons learned from past censuses | | | | | | |

| | Task Name | Start Date | Wks | Responsible Party(ies) | Place | Output |
|----------------------------------|--|-------------------------|-----------------|--|----------------------|--|
| I PLANNING AND MANAGEMENT | | | | | | |
| F | <i>Research on recent development of census technology</i> | <i>Sept 2014</i> | <i>4</i> | <i>Director of Census and Surveys</i> | <i>Maputo</i> | <i>Reports Produced</i> |
| 1 | Compile materials on recent development of new technologies in data capture | | | | | |
| 2 | Compile materials on recent development of new technologies in GIS and Mapping | | | | | |
| 3 | Compile materials on recent development of new technologies in printing | | | | | |
| 4 | Prepare reports on appropriate technologies for data transmission from various Provinces | | | | | |
| 5 | Establish census library and acquire recent census material and books | | | | | |
| | | | | | | |
| G | <i>Prepare financial and logistical support requirements</i> | <i>June 2014</i> | <i>4</i> | <i>Director of Census and Surveys</i> | <i>Maputo</i> | <i>Census Project Document produced</i> |
| 1 | Prepare overall census budgets | | | | | |
| 2 | Budget approval process | | | | | |
| 3 | Budget training | | | | | |
| 4 | Budget management | | | | | |
| 5 | Budget reviews | | | | | |
| 6 | Prepare logistical support plans | | | | | |
| 7 | Discuss with some vital Govt. agencies for support of census needs | | | | | |
| | | | | | | |
| H | <i>Research on unanticipated issues affecting the census program</i> | <i>Oct 2015</i> | <i>4</i> | <i>Director of Census and Surveys</i> | <i>Maputo</i> | <i>Assessment Reports produced</i> |
| 1 | Prepare short position papers on risks due to political issues, (e.g. election, etc.) | | | | | |
| 2 | Assessments of risks due to ethnic or religious conflicts | | | | | |
| 3 | Assessments of risks due to economic or budgetary issues | | | | | |
| | | | | | | |
| I | <i>Establish Census Advisory Committee</i> | <i>Aug 2015</i> | <i>3</i> | <i>GCR</i> | <i>Maputo</i> | <i>Committee established and functional</i> |
| 1 | Organize Meetings on General Census Programme | | | | | |
| 2 | Organize Meetings on Census Methodology | | | | | |
| 3 | Organize meeting on Census Topics | | | | | |
| 4 | Organize meeting on census publicity | | | | | |
| 5 | Organize meeting on Provincial census organization and field operation | | | | | |
| 6 | Organize meeting on census data capture | | | | | |
| 7 | Organize meeting on census data dissemination policy | | | | | |

| | Task Name | Start Date | Wk s. | Responsible Party(ies) | Place | Output |
|----------------------------------|--|------------|-------|--|--|--|
| I PLANNING AND MANAGEMENT | | | | | | |
| J | <i>Establishment of Provincial and District Census Coordinating Committees</i> | Aug 2015 | 12 | INE's President/Census Director and GCR | Maputo/Province District Headquarters | Letters of appointment to members and minutes of meetings |
| 1 | Organize meetings with stakeholders | | | | | |
| | | | | | | |
| K | <i>Establish Provincial and District Census Offices</i> | Aug 2015 | | Field organization section and province Officers | Maputo and Province & District Headquarters | Assumption of duty of District Census Officers and supporting staff and office accommodation |
| 1 | Establish budget for salaries, allowances, travels, and subsistence for Provincial Managers | | | | | |
| 2 | Office renovation, rental or construction | | | | | |
| 3 | Procure Office furniture, equipment and other facilities | | | | | |
| 4 | Prepare budget for other personnel's salaries | | | | | |
| 5 | Prepare budget for travels and subsistence for Personnel | | | | | |
| 6 | Budget for various meetings with local stakeholders | | | | | |
| L | <i>Develop Procurement Plans and Procedures</i> | Sept 2014 | 6 | <i>Director of Census and Surveys and Ministry of Finance</i> | <i>Maputo</i> | <i>Plans and Procedures Manuals developed</i> |
| 1 | Compile Govt. approved standard bidding document | | | | | |
| 2 | Develop list of reliable Vendors for various goods services | | | | | |
| 3 | Compile laws and regulations governing procurement of Government Properties | | | | | |
| 4 | Estimate the amount of additional offices and storage areas required at Headquarters | | | | | |
| 5 | Estimate the amount of additional offices and storage areas required in each Province | | | | | |
| 6 | Acquire office space and storage areas (including shelving, cabinets, etc.) at headquarters and in all Provinces | | | | | |
| M | <i>Recruitment of short-term international personnel</i> | Jan 2016 | 104 | <i>Donor Agencies with concurrence of INE President</i> | <i>Maputo/Washington/Johannesburg</i> | <i>Assumption of duty of Experts</i> |
| 2 | Census organization expert | | | | | |
| 3 | Census data processing expert | | | | | |
| 6 | Sampling expert | | | | | |

| | Task Name | Start Date | Wks. | Responsible Party(ies) | Place | Output |
|----------------------------------|---|------------|------|------------------------|-------|--------|
| I PLANNING AND MANAGEMENT | | | | | | |
| <i>N</i> | <i>Technical Assistance and Training</i> | | | | | |
| 1 | Workshop on the creation of new digital geographic layers, transfer of features | 04 | 2015 | 2 | | |
| 2 | Workshop for INE managers on map use and applications of geographic data | | 2015 | 2 | | |
| 3 | Workshop on gender in the census planning process | 10 | 2015 | 2 | | |
| 4 | Development of GIS maps in preparation for the census | | 2016 | 4 | | |
| 5 | Subject matter specialist for pilot census questionnaire design and control forms | 02 | 2016 | 3 | | |
| 6 | Geographer to enhance production of cartographic products | 03 | 2016 | 2 | | |
| 7 | Publicity Specialist to adapt US Census in Schools programme to Mozambique | | 2016 | 2 | | |
| 8 | Design of overall data processing system | | 2016 | 4 | | |
| 9 | Computer specialist for training on CSPro software | 03 | 2016 | 3 | | |
| 10 | Mathematical statistician to develop sample design for PES | 04 | 2016 | 3 | | |
| 11 | Survey statistician to develop PES questionnaire | 05 | 2016 | 3 | | |
| 12 | Workshop on post-processing data dissemination | 05 | 2016 | 3 | | |
| 13 | Mathematical statistician to develop quality assurance procedures for census operations | 06 | 2016 | 3 | | |
| 14 | Subject matter specialist to review and analyze pilot census results | 01 | 2017 | 3 | | |
| 15 | Evaluation of data processing for pilot census and pilot post enumeration survey | | 2017 | 4 | | |
| 16 | Mathematical statistician to finalize PES procedures and select sample EAs for PES | 04 | 2017 | 2 | | |
| 17 | Mathematical statistician to review results of PES matching | 11 | 2017 | 3 | | |
| 18 | Mathematical statistician for estimation, variance calculation and analysis of PES | 04 | 2018 | 3 | | |
| 19 | Processing specialists to evaluate quality and productivity of manual editing/coding | | 2018 | 3 | | |
| 20 | Processing specialist to evaluate editing process and initiate tabulation phase | | 2018 | 4 | | |
| 21 | Survey statistician to develop data dissemination program | 10 | 2018 | 2 | | |
| 22 | Mathematical statistician to develop master sample design | 03 | 2019 | 2 | | |
| 23 | Demographer for follow up support on demographic and thematic analyses | 06 | 2019 | 3 | | |
| 24 | Mathematical statistician to review implementation of master sample design | 06 | 2019 | 3 | | |
| 25 | Geographers to assist with Atlas, online maps and integration of maps into publications | | 2019 | 3 | | |
| 26 | Geographers continue assistance with Atlas etc. | | 2019 | 2 | | |
| 27 | Demographers to conduct workshop on demographic analysis | | 2019 | 2 | | |
| 28 | Demographers to provide assistance with population projections | | 2019 | 2 | | |
| 29 | Demographers to participate in the Census Analysis Seminar | 08 | 2019 | 3 | | |
| 30 | Survey statistician to review implementation of data dissemination programme | 09 | 2019 | 2 | | |
| | | | | | | |

| | Task Name | Start Date | Wk s. | Responsible Party(ies) | Place | Output |
|----------------------------|--|-------------------------|-----------------|--|----------------------|---|
| II PREPARATORY WORK | | | | | | |
| A | <i>Appoint members of the Census Technical Committees</i> | <i>Sept 2015</i> | <i>4</i> | <i>GCR</i> | <i>Maputo</i> | <i>Members appointed and Committees functional</i> |
| 1 | Prepare lists of available technical expertise | | | | | |
| 2 | Appoint Committee members | | | | | |
| 3 | Organize Technical Committee plenary meetings | | | | | |
| 4 | Formation of Census Technical. Sub Committees | | | | | |
| 5 | Each sub-committee develops plans and strategy in their area of responsibility | | | | | |
| 6 | Present the work of each to full meetings for coordination | | | | | |
| 7 | Prepare reports to Census Management and Census Advisory Committee | | | | | |
| | | | | | | |
| B | <i>Develop strategy for census methods and procedures</i> | <i>Aug 2015</i> | <i>4</i> | <i>Commission on Methods and Analysis</i> | <i>Maputo</i> | <i>Strategies in place</i> |
| 1 | Develop all enumeration and administrative procedures. | | | | | |
| 2 | Develop procedures for recruitment. | | | | | |
| 3 | Develop administrative procedures for payment of temporary staff | | | | | |
| | | | | | | |
| C | <i>Test census methods and procedure</i> | <i>Aug 2015</i> | <i>2</i> | <i>Commission on Methods and Analysis</i> | <i>Maputo</i> | <i>Test results available</i> |
| 1 | Set testing goals and objectives | | | | | |
| 2 | Implement and monitor EA design test | | | | | |
| 3 | Evaluate EA design | | | | | |
| | | | | | | |
| D | <i>Develop enumeration materials and instruments</i> | <i>Aug 2015</i> | <i>8</i> | <i>Commission on Methods and Analysis</i> | <i>Maputo</i> | <i>First draft of questionnaires and manuals</i> |
| 1 | Design questionnaires and other forms | | | | | |
| 2 | Prepare instruction manuals for enumerators | | | | | |
| 3 | Prepare instruction manuals for supervisors | | | | | |
| 4 | Prepare instruction manuals for Provincial Supervisors | | | | | |
| 5 | Test questionnaires and other forms | | | | | |
| 6 | Evaluate questionnaires and other census instruments based on census tests | | | | | |

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| | Task Name | Start Date | Wk s. | Responsible Party(ies) | Place | Output | |
|---------------------|---|------------|-------|------------------------|------------------------------------|--------|---------------------------------------|
| II PREPARATORY WORK | | | | | | | |
| | | | | | | | |
| F | Develop strategy for printing of all census documents | Nov | 2015 | 3 | Commission of Methods and Analysis | Maputo | Strategy in Place |
| 1 | Identify printing facilities in the country which meet the criteria to print the census documents | | | | | | |
| 2 | Develop list of census documents which need to be printed | | | | | | |
| 3 | Develop estimated time table for each document to be available. | | | | | | |
| | | | | | | | |
| G | Develop strategy for census cartography and GIS | Nov | 2014 | 2 | Commission on Cartography and GIS | Maputo | Strategy developed |
| 1 | Establish EA design principles and criteria | | | | | | |
| 2 | Prepare EA design and manual of instructions | | | | | | |
| 3 | Establish EA update methods and procedures | | | | | | |
| 4 | Set testing goals and objectives | | | | | | |
| 5 | Implement and monitor EA design test | | | | | | |
| 6 | Evaluate EA design | | | | | | |
| 7 | Prepare budget for field mapping operations | | | | | | |
| | | | | | | | |
| H | Determine appropriate technology for census mapping | Nov | 2014 | 2 | Commission on Cartography and GIS | Maputo | Appropriate technology adopted |
| 1 | Assess Availability and accessibility of digital maps in the country | | | | | | |
| 2 | Determine the technical capacity and select appropriate technology | | | | | | |
| 3 | Determine mapping needs and specifications | | | | | | |
| 4 | Procurement equipment and software for census mapping | | | | | | |
| 5 | Testing of cartography and GIS instruments and procedures | | | | | | |
| | | | | | | | |
| I | Recruit personnel and training | Dec | 2014 | 3 | Commission on Cartography and GIS | Maputo | Field personnel recruited and trained |
| 1 | Estimate number of personnel required in all Provinces | | | | | | |
| 2 | Train Master instructors and Provincial instructors | | | | | | |
| 3 | Prepare training sites | | | | | | |
| 4 | Training of field mapping workers and supervisors | | | | | | |

| | Task Name | Start Date | Wks . | Responsible Party(ies) | Place | Output | |
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| II PREPARATORY WORK | | | | | | | |
| J | Deploy cartographic teams | Jan | 2015 | 80 | Commission on Cartography and Operations | Maputo and Provinces | Updated EA Maps |
| I | Monitor the field mapping operations | | | | | | |
| 2 | Review and verify mapping works prior to delivery to Headquarters | | | | | | |
| 3 | Return all updated maps according to procedures | | | | | | |
| K | Prepare Enumeration Area maps | Jan | 2017 | 20 | Commission of Cartography and Operations | Maputo | Printed EA Maps |
| 1 | Prepare lists and codes of all EAs | | | | | | |
| 2 | Prepare and verify map compilation packages | | | | | | |
| 3 | Digital data conversion | | | | | | |
| 4 | Review and verify digital base maps | | | | | | |
| 5 | Delineate and code EA and Supervisors Area (SA) maps | | | | | | |
| 6 | Review and Verify census EA and PES sample segments maps. | | | | | | |
| 7 | Print all maps for field operations. | | | | | | |
| L | Printing of Census Documents | Dec | 2016 | 12 | GCR and printing Company | Maputo | Printed questionnaires, manuals and control forms |
| 1 | Prepare detailed specifications for document to be out-sourced for printing & | | | | | | |
| 2 | Develop quality control methods to be applied during printing process | | | | | | |
| 3 | Develop quality control mechanism | | | | | | |
| 4 | Execute quality control system | | | | | | |
| 5 | Appoint monitoring teams for all printing sites; Ensure quality and schedule | | | | | | |
| M | Procurement of Materials and Equipment | Dec | 2014 | 104 | Commission of Administration and Finance | Maputo | Materials and Equipment in place for various activities |
| 1 | Advertise in stages announcements for tender of various procurements. | | | | | | |
| 2 | Procure office furniture and equipment | | | | | | |
| 3 | Procure office consumables | | | | | | |
| 4 | Procure data processing hardware and software | | | | | | |
| 5 | Procure vehicles and other transport equipment | | | | | | |
| 6 | Procure equipment and software for census mapping | | | | | | |
| 7 | Prepare evaluation reports for all bids and submit to Procurement Commi. | | | | | | |
| 8 | Monitor and verify the delivered materials. | | | | | | |
| 9 | Notify and distribute all procured goods and services to respective units | | | | | | |

| | Task Name | Start Date | Wks | Responsible Party(ies) | Place | Output |
|----------------------------|--|------------|-----|--|--------------------------------|---------------------------------|
| II PREPARATORY WORK | | | | | | |
| <i>N</i> | <i>Pilot Census</i> | June 2016 | 20 | GCR, Provincial and District Census officers | Provinces and Districts | Report of Pilot Census produced |
| 1 | Develop a plan for the pilot census | | | | | |
| 2 | Compile all forms, instruments and procedures ready to be used for Pilot Census | | | | | |
| 3 | Produce forms, other instruments for pilot census | | | | | |
| 4 | Allocate funds for pilot census | | | | | |
| 5 | Develop a logistics systems for pilot census | | | | | |
| 6 | Recruitment and training of field staff for the pilot census | | | | | |
| 7 | Pilot census enumeration | | | | | |
| 8 | Monitoring and supervision of the field operations of pilot census | | | | | |
| 9 | Data processing of pilot census | | | | | |
| 10 | Evaluation of pilot census | | | | | |
| 11 | Review all census instruments, materials and procedures based on pilot cen. findings | | | | | |
| <i>O</i> | <i>Pilot Post Enumeration Survey</i> | Aug 2016 | 15 | <i>Commission on Methods and Analysis</i> | <i>Provinces and Districts</i> | <i>Matching accomplished</i> |
| 1 | Prepare a plan on the objective, scope, and coverage of the PES | | | | | |
| 2 | Develop PES questionnaires and the instructions manual | | | | | |
| 3 | Develop sampling design and methodology for the PES | | | | | |
| 4 | Prepare detailed time schedule PES operations | | | | | |
| 5 | Develop matching rules, and actions for un matched questionnaires | | | | | |
| 6 | Determine field verification procedures | | | | | |
| 7 | Recruit and train PES field workers | | | | | |
| 8 | Recruit PES enumerators independent from census | | | | | |
| 9 | Train PES enumerators | | | | | |
| 10 | Enumerate selected HH for PES | | | | | |
| 11 | Return PES document for matching | | | | | |
| 12 | Editing and processing | | | | | |
| 13 | Train staff for matching and editing | | | | | |
| 14 | Questionnaires matching | | | | | |
| 15 | Editing and further processing of PES | | | | | |
| 16 | Tabulation of PES results | | | | | |
| 17 | Report on the analysis of the Post Enumeration Survey Exercise | | | | | |

| | Task Name | Start Date | Wks. | Responsible Party(ies) | Place | Output |
|-----------------------------|--|-------------------------|-------------------|---|---|---|
| III FIELD OPERATIONS | | | | | | |
| A | <i>Advocacy and Publicity Campaign</i> | <i>Sept 2015</i> | <i>150</i> | <i>Advertising and Information Committee</i> | <i>Maputo, Provinces and Districts</i> | <i>Sensitized and mobilized Population</i> |
| 1 | Define various target audiences including INE staff, Senior Govt. officials, schools & general public | | | | | |
| 2 | Define campaign strategy for different audiences | | | | | |
| 3 | Determine media channels for each target | | | | | |
| 4 | Determine if outsourcing is desirable and possible | | | | | |
| 5 | Recruit publicity consultants | | | | | |
| 6 | Develop appropriate messages for different audiences | | | | | |
| 7 | Produce all publicity materials | | | | | |
| 8 | Implement the publicity strategy | | | | | |
| 9 | Educate all INE staff on census publicity campaign | | | | | |
| 10 | Activate internet and telephone inquiry services in all Provinces | | | | | |
| 11 | Advocate all community leaders at all administrative levels | | | | | |
| 12 | Start school census campaign programme | | | | | |
| 13 | Develop objective of the evaluation | | | | | |
| 14 | Measure the impact of media advertising | | | | | |
| 15 | Measure public exposure from the publicity campaign | | | | | |
| | | | | | | |
| B | Recruit Field Staff | Apr 2017 | 4 | Province and District Officers | Provinces and Districts | Field Staff recruited |
| 1 | Develop strategy for recruitment of the field staff | | | | | |
| 2 | Estimate the number of field staff to be recruited for each position (with reserves) in each District. | | | | | |
| 3 | Develop guidelines and procedures for recruitment of field staff | | | | | |
| 4 | Develop time table for recruitment at headquarters and at all provincial and district offices | | | | | |
| 5 | Consult and involve concerned Government agencies responsible for staff recruitment | | | | | |
| 6 | Launch recruitment publicity targeted toward potential candidates | | | | | |
| 7 | Carryout screening test and interviews of potential candidates at all levels. | | | | | |

| | Task Name | Start Date | | Wks. | Responsible Party(ies) | Place | Output |
|----------------------|---|------------|------|------|--|-------------------------|--|
| III FIELD OPERATIONS | | | | | | | |
| C | Train Field Staff | June | 2017 | 8 | Training Commission | Province and Districts | Trained Field Staff and Reserves in Place |
| 1 | Develop overall training programme | | | | | | |
| 2 | Prepare census training guidelines for various levels of staff | | | | | | |
| 3 | Prepare Provincial Managers Manual on Field Organization & Management | | | | | | |
| 4 | Prepare Provincial Managers Guide on Training of Field Staff | | | | | | |
| 5 | Prepare Provincial Managers Guide on Field Enumerations | | | | | | |
| 6 | Prepare Instructions Manual for Enumerators | | | | | | |
| 7 | Prepare Instructions Manual for Supervisors | | | | | | |
| 8 | Prepare Instructions Manual for District Leaders | | | | | | |
| 9 | Prepare guidelines and procedures for quality assurance. | | | | | | |
| 10 | Organize training for Provincial Managers and senior staff on field operati | | | | | | |
| 11 | Provincial Managers train District Census Managers on field operations | | | | | | |
| 12 | Training of Regional Trainers | | | | | | |
| 13 | Training of Provincial Trainers | | | | | | |
| | Training of District Trainers | | | | | | |
| 14 | Training of Supervisors | | | | | | |
| 15 | Training of Enumerators | | | | | | |
| D | Distribution of Materials | Apr | 2017 | 20 | Commission on Administration and Logistics | Provinces and Districts | Materials available at Enumerator Training sites |
| 1 | Develop logistics plan for distribution of materials | | | | | | |
| 2 | Develop complete inventory of materials to be packed and distributed | | | | | | |
| 3 | Receipt of census materials from suppliers; e.g. printers; vendors. | | | | | | |
| 4 | Develop delivery strategy based on effectiveness in terms of time costs | | | | | | |
| 5 | Estimate workload for transport requirements | | | | | | |
| 6 | Prepare packing lists for all dispatch, including address, contents, number o | | | | | | |
| 7 | Maintain schedule pickup and delivery time for dispatch of materials | | | | | | |
| 8 | Monitor timeliness and completeness of census materials dispatched | | | | | | |
| 9 | Maintain log book of materials dispatched with complete status reports | | | | | | |
| 10 | Maintain electronic communications with all Provincial offices | | | | | | |
| 11 | Monitor proper storage conditions for census materials in all field locations | | | | | | |

| | Task Name | Start Date | Wk s. | Responsible Party(ies) | Place | Output | |
|----------------------|--|------------|-------|------------------------|---------------------------------------|---------------------------------|---|
| III FIELD OPERATIONS | | | | | | | |
| E | Census Enumeration | Aug | 2017 | 4 | Province and District Census Officers | Provinces and Districts | Field enumeration completed |
| 1 | Begin field enumeration activities; traditional methods | | | | | | |
| 2 | District leaders and their team meeting for field recognition, agree on work plan and mode of communication | | | | | | |
| 3 | Check if all materials received meet the required expectation. Maps, all forms, instructions, code lists, etc. | | | | | | |
| 4 | Supervisors and enumerators agree on work procedures and time and location of meetings | | | | | | |
| 5 | Special arrangement for population living in difficult areas, nomadic, | | | | | | |
| 6 | Advance payments if needed for transport and other expenses | | | | | | |
| 7 | House/household listing. Building numbering. etc. | | | | | | |
| 8 | Delivery of household listings to supervisors. | | | | | | |
| 9 | Census enumeration field operations | | | | | | |
| 10 | Supervision of field operations | | | | | | |
| 11 | Insure the quality assurance programme implementation | | | | | | |
| 12 | Corrective action for field operations | | | | | | |
| 13 | Reports on quality assurance activities | | | | | | |
| 14 | Transmit field report to Central Office | | | | | | |
| F | Return of Census Materials | Aug | 2017 | 4 | Province and District Officers | Maputo, Provinces and Districts | Completed questionnaires and other materials returned to the Data Processing centre |
| 1 | Develop logistics plan for return of materials | | | | | | |
| 2 | Field work force return the completed forms according to procedures | | | | | | |
| 3 | District Leaders return census documents to District Census Office | | | | | | |
| 4 | Provincial Census Office repack census materials for return to Stora | | | | | | |
| 5 | Document storage maintain log book to monitor completeness of materials. | | | | | | |
| 6 | Document are prepared for manual checking of the completeness | | | | | | |
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| | Task Name | Start Date | Wk s. | Responsible Party(ies) | Place | Output |
|-----------------------------|---|------------|-------------|------------------------|---|-----------------------------------|
| III FIELD OPERATIONS | | | | | | |
| G | PES Enumeration | Mar | 2017 | 30 | Demography and Methodology Section | Maputo/Provinces/Districts |
| 1 | Recruit and train PES field workers | | | | | |
| 2 | Recruit PES enumerators independent from census | | | | | |
| 3 | Train PES enumerators | | | | | |
| 4 | Enumerate selected HH for PES | | | | | |
| 5 | Return PES document for matching | | | | | |
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| | Task Name | Start Date | Wks | Responsible Party(ies) | Place | Output |
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| IV DATA PROCESSING | | | | | | |
| A | <i>Develop a Strategy for the Census Data Processing</i> | <i>Oct 2014</i> | <i>8</i> | <i>Director of Data Processing</i> | <i>Maputo</i> | <i>Strategy report produced</i> |
| 1 | Conduct a study on the options of data processing system and technology use | | | | | |
| 2 | Prepare a report on the lessons learned from the data processing of the previous censuses | | | | | |
| 3 | Asses the viability and local support availability of new technology | | | | | |
| 4 | Learn from other countries' experience on the system and technology applied | | | | | |
| 5 | Assess the level of internal expertise of on new technology | | | | | |
| 6 | Determine the number of technical staff required to work on the census | | | | | |
| 7 | Determine if additional staff is required | | | | | |
| 8 | Determine if training of new staff is required | | | | | |
| 9 | Prepare a study on the possible location (s) of the processing centers. | | | | | |
| 10 | Prepare a study on cost benefit analysis for one central location versus several centers. | | | | | |
| 11 | Prepare a study if outsourcing of the data processing is considered | | | | | |
| 12 | Prepare a comprehensive report on different data capture methods and all the consequences | | | | | |
| 13 | Prepare a comprehensive report on the different computer software | | | | | |
| 14 | Prepare a cost benefit analysis among different methods and technologies | | | | | |
| | | | | | | |
| B | <i>Develop Data Processing Operations and Cycles</i> | <i>Jan 2015</i> | <i>4</i> | <i>Director of Data Processing</i> | <i>Maputo</i> | <i>Documentation developed</i> |
| 1 | Develop data preparation procedures | | | | | |
| 2 | Develop document storage and establish management system of forms movements | | | | | |
| 3 | Set up procedures for Documents receipt and registration | | | | | |
| 4 | Develop procedures for preliminary checking | | | | | |
| 5 | Develop procedures for buffer and back log system | | | | | |
| 6 | Decide coding/classification for occupation and Industry | | | | | |
| 7 | Develop indexes for all computer assisted coded items | | | | | |
| 8 | Develop algorithm for automated coded items | | | | | |
| 9 | Seek advice from other countries that developed management information system in census processing | | | | | |
| 10 | Determine information to be collected (i.e. production rate per staff/per day, flow of documents, etc.) | | | | | |
| 11 | Determine the information to be reported (i.e. by section, group, or individuals, etc.) | | | | | |

| | Task Name | Start Date | | Wks | Responsible Party(ies) | Place | Output |
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| IV DATA PROCESSING | | | | | | | |
| C | Establish Strategy for Data Capture Technology | Mar | 2015 | 4 | Director of Data Processing | Maputo | Strategy in place |
| 1 | Develop detailed specifications of the scanners to be used in the census | | | | | | |
| 2 | Procure small number of scanners for testing purposes | | | | | | |
| 3 | Develop or obtain prototype software to be used for testing. | | | | | | |
| 4 | Prepare different quality of papers, ink, pencils, etc. for testing purposes. | | | | | | |
| 5 | Investigate different scanning software including costs of licensing and other support. | | | | | | |
| 6 | Test both hardware and software to be used in the census in a smaller scale. | | | | | | |
| 7 | Learn experience from other countries using the same technologies | | | | | | |
| 8 | Develop detailed specifications for the outsourced work, technical, time, and quality of delivered output | | | | | | |
| 9 | Develop requirements for vendors to qualify to bid. | | | | | | |
| 10 | Develop agreement for regular meetings and monitoring procedures. | | | | | | |
| 11 | Develop agreement of training, documentations and format of delivered outputs. | | | | | | |
| | | | | | | | |
| D | Develop Data Processing System | Apr | 2015 | 5 | Data Processing Committee | Maputo | System Developed |
| 1 | Develop and test computer programme and system | | | | | | |
| 2 | Develop, lease, or procure computer software to be used for the census | | | | | | |
| 3 | Test the DP system for certain target areas: scanning, coding and editing | | | | | | |
| 4 | Test in larger scale individual component of the DP system | | | | | | |
| 5 | Test in larger scale integrated components of the overall DP system | | | | | | |
| 6 | Test the DP system in a general rehearsal environment | | | | | | |
| 7 | Correct and improve all bugs and errors in the system before implementation in the census. | | | | | | |
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| | Task Name | Start Date | Wk s. | Responsible Party(ies) | Place | Output |
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| IV DATA PROCESSING | | | | | | |
| E | <i>Procure Data Processing Equipment</i> | May | 2015 | 50 | Commission on Administration | Maputo Contractor approved |
| 1 | Prepare specifications for all equipment to be procured | | | | | |
| 2 | Prepare detailed specifications for all DP equipment needed for the census. | | | | | |
| 3 | Prepare detailed time schedule for the availability of the equipment | | | | | |
| 4 | Prepare detailed specifications for other supporting equipment and materials | | | | | |
| 5 | Prepare bidding documents to procure data processing equipment | | | | | |
| 6 | Prepare bidding documents to procure auxiliary equipment | | | | | |
| 7 | Prepare bidding document to procure computer supplies | | | | | |
| 8 | Assist in the evaluation of the bidding proposal | | | | | |
| | | | | | | |
| F | <i>Recruit and Train Data Processing Staff</i> | Oct | 2017 | 4 | Data Processing Committee | Maputo Trained Staff in place |
| 1 | Develop job descriptions, qualifications and number of staff required for each section of operations | | | | | |
| 2 | Interview applicants and select new staff for each section | | | | | |
| 3 | Develop training materials for each section of DP operations | | | | | |
| 4 | Prepare training programme for each section | | | | | |
| 5 | Train of DP staff | | | | | |
| | | | | | | |
| G | <i>Scanning of Questionnaires</i> | Oct | 2017 | 15 | Data Processing Committee | Maputo Scanning of questionnaires completed |
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| | Task Name | Start Date | Wks. | Responsible Party(ies) | Place | Output |
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| IV DATA PROCESSING | | | | | | |
| H | <i>Data Editing and Validation Programme</i> | <i>Nov 2017</i> | <i>30</i> | <i>Data Processing Commission</i> | <i>Maputo</i> | <i>Edited and validated data</i> |
| 1 | Develop procedures for balancing of census records to be used in all of DP network. | | | | | |
| 2 | Develop data editing and validation rules | | | | | |
| 3 | Develop quality assurance procedures at each stage of data processing stage | | | | | |
| 4 | Develop rules for status of electronic data in process control | | | | | |
| 5 | Implement data editing and validation | | | | | |
| 6 | Establish quality monitoring and improvement framework | | | | | |
| 7 | Check 100% initially for all new staff | | | | | |
| 8 | Check on sample basis afterward, individually and groups in each section | | | | | |
| 9 | Monitor amount data items edited and imputed | | | | | |
| 10 | Revised if necessary the acceptable level of correction for clean data. | | | | | |
| 11 | Reprocess data for using the revised validation procedures | | | | | |
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| I | <i>PES Processing</i> | <i>Oct 2017</i> | <i>12</i> | <i>Data Processing Commission</i> | <i>Maputo</i> | <i>Coverage error estimated</i> |
| 1 | Editing and processing | | | | | |
| 2 | Train staff for matching and editing | | | | | |
| 3 | Questionnaires matching | | | | | |
| 4 | Editing and further processing of PES | | | | | |
| 5 | Tabulation of PES results | | | | | |
| 6 | Report on the analysis of the Post Enumeration Survey Exercise | | | | | |

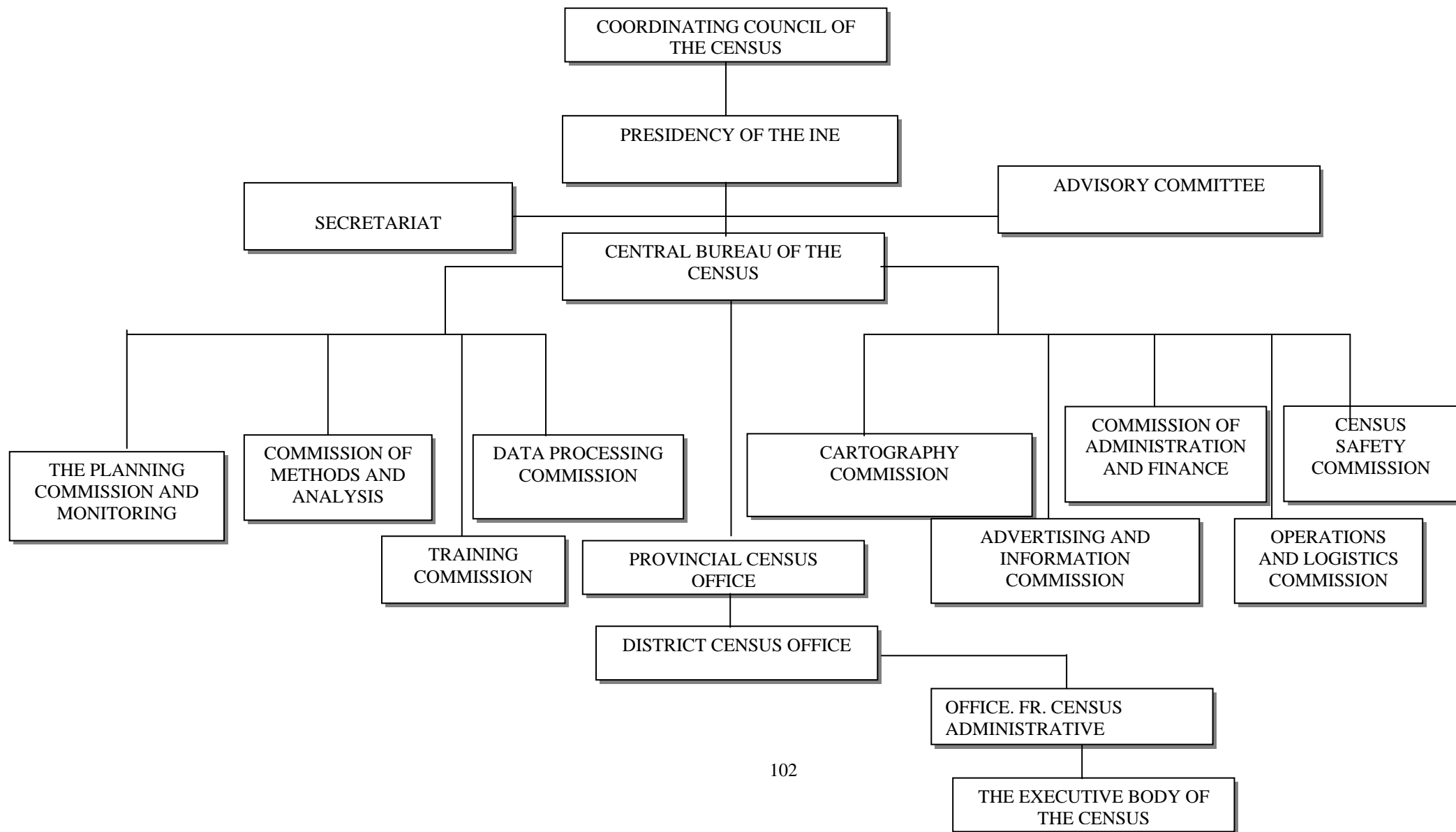
| | Task Name | Start Date | Wks . | Responsible Party(ies) | Place | Output |
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| V CENSUS PRODUCTS AND DISSEMINATION | | | | | | |
| A | <i>Announce Census Results</i> | <i>Sept 2017</i> | <i>6</i> | <i>INE/UNFPA/Us Census Bureau</i> | <i>Maputo/Provinces/Districts</i> | <i>Results announced</i> |
| 1 | Implement procedures for the compilation of materials leading to provisional results | | | | | |
| 2 | Issue press releases regarding the timing of the release of Provisional Results | | | | | |
| 3 | Launch Provisional Census Results at the National and Provincial levels | | | | | |
| 4 | Develop a plan for the release of Census Final Results | | | | | |
| 5 | Prepare preliminary analysis to be released with the Final Results | | | | | |
| 6 | Develop a plan for the release of Census Final Results | | | | | |
| 7 | Launch Final Census Results at the National and Provincial levels | | | | | |
| B | <i>Develop Census Products</i> | <i>Sept 2018</i> | <i>30</i> | <i>Data Processing/ Demography</i> | <i>Maputo</i> | <i>Products developed</i> |
| 1 | Prepare Census Reports at all levels | | | | | |
| 2 | Prepare the necessary tables for the main census reports | | | | | |
| 3 | Prepare explanatory notes | | | | | |
| 4 | Printing of census publication | | | | | |
| 5 | Prepare electronic census products at all levels | | | | | |
| 6 | Organize census file for electronic dissemination | | | | | |
| 7 | Prepare explanatory notes | | | | | |
| 8 | Prepare meta data to be included in electronic products | | | | | |
| 9 | Produce electronic census products | | | | | |
| 10 | Produce thematic census tables at all levels | | | | | |
| 11 | Produce thematic maps for print and electronic publication | | | | | |
| 12 | Prepare explanatory notes for thematic map publication | | | | | |
| 13 | Prepare meta data for thematic map publication | | | | | |
| 14 | Produce thematic maps publication | | | | | |

| | Task Name | Start Date | | Wks. | Responsible Party(ies) | Place | Output |
|-------------------------------------|---|------------|------|------|--|-----------------------------|------------------------------|
| V CENSUS PRODUCTS AND DISSEMINATION | | | | | | | |
| C | Develop census users services | Nov | 2018 | 4 | Advertising and Information Commission | Maputo | Users Services in place |
| 1 | Appoint a team of technical staff responsible for Users services | | | | | | |
| 2 | Publish procedures for census users services | | | | | | |
| 3 | Procure the required hardware and software | | | | | | |
| 4 | Recruit consultant for software development | | | | | | |
| | | | | | | | |
| D | Develop Census Dissemination | Jan | 2019 | 52 | INE | Maputo/Province s/Districts | Census products disseminated |
| 1 | Publish census volumes at all levels | | | | | | |
| 2 | Issue press releases on availability of different census volumes in print | | | | | | |
| 3 | Packing census volumes | | | | | | |
| 4 | Shipment of census volumes to all census users on mailing list | | | | | | |
| 5 | Disseminate census electronic publication | | | | | | |
| 6 | Issue press releases on availability of different census electronic publication | | | | | | |
| 7 | Packing census electronic publication | | | | | | |
| 8 | Shipment of census electronic publication | | | | | | |
| 9 | Organize seminars and meetings to disseminate census results | | | | | | |
| 10 | Organize seminar at national level | | | | | | |
| 11 | Organize seminars at Provincial level | | | | | | |
| 12 | Organize meetings at different stake holders offices | | | | | | |
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| | Task Name | Start Date | | Wk s. | Responsible Party(ies) | Place | Output |
|-------------------------------------|---|------------|------|-------|------------------------|--------|--------------------------------------|
| V CENSUS PRODUCTS AND DISSEMINATION | | | | | | | |
| E | Develop thematic analytical report programme | Jan | 2019 | 30 | INE | Maputo | Reports produced and seminars held |
| 1 | Determine the thematic topics to be prepared for publications | | | | | | |
| 2 | Recruit analysts to be assigned to prepare the reports | | | | | | |
| 3 | Organize meetings among analysts/organization on reports outline and data requirements and time table | | | | | | |
| 4 | Allocate resources to undertake the studies | | | | | | |
| 5 | Establish editorial board to review the reports | | | | | | |
| 6 | Organize a National Seminar on Census In-depth Analysis | | | | | | |
| 7 | Prepare policy and programme issues paper. | | | | | | |
| | | | | | | | |
| F | Develop census monograph series | Jan | 2019 | 30 | INE | Maputo | Monographs Produced and Disseminated |
| 1 | Determine the thematic topics to be prepared with annotation | | | | | | |
| 2 | Solicit bids to undertake the study | | | | | | |
| 3 | Issue contract to undertake the studies | | | | | | |
| 4 | Review the analytical product | | | | | | |
| 5 | Organize meetings/seminars to discuss the findings and implications | | | | | | |
| 6 | Publish the monographs | | | | | | |
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Annex II. 2017 Census organogram

ORGANIZATION CHART OF THE IV GENERAL CENSUS OF POPULATION AND HOUSING 2017



Annex III Main Functions of Census Organs

Description of the main functions of each body established for the 4th Population and Housing Census to be carried out in 2017:

1. Organs of direction and coordination

Coordinating Council Of Population And Housing Censuses (CCRGP)

Is the highest level of the General Census of Population and Housing and is directed by the Prime Minister.

The CCRGPH has the following main functions:

1. Approve the objectives of censuses
2. Approve the organic structure of the Census Central Office
3. Approve the plan census Director
4. Approve the budget for the census
5. To propose to the Council of Ministers the Census Law
6. To propose to the Council of Ministers the legal provisions of the population census and ensure the participation of the various structures of the State apparatus, socio-professional Organizations, non-governmental Organizations, academic institutions and Civil society
7. Ensure compliance with the guidelines of the Census Law and other legal provisions.

Central Bureau Of The Census (GCR)

Is the governing body which has the responsibility to plan, organize and conduct the census process on its highest level of execution. GCR functions are:

1. Plan, schedule, organize, lead, supervise, monitor and assess the whole census process
2. Determine and propose to CCRGP the objectives of the General Census of Population and housing
3. Prepare and propose to the CCRGP the Census master plan and its approval
4. Draw up the plan of tabs, and the censal program census newsletter and propose to CCRGP its approval
5. Prepare the annual budget proposal and total being subjected to the CCRGPH
6. Prepare draft of legal provisions for the implementation of the population and Housing Census
7. Propose to the CCRGP the organic structure of the GCR, as well as Executive-level indication
8. Appoint the technicians needed for execution of the census
9. Determine the need for foreign experts in various specialties and propose national and international personnel to be recruited
10. Organize seminars and national and international meetings
11. Ensure that law enforcement and other legal services support the census process
12. Ensure rational use of financial resources, materials and equipment provided by the Government and by the international community
13. Display the census data through an organic plan of publication

14. Draw up half-yearly reports on the progress of activities and submit them to CCRGP

For the fulfilment of their duties the GCR will feature two advisory bodies operating at different levels. The Executive level the GCR is divided into technical committees and Support.

Advisory Committee

Is the body which will meet whenever convened by the Directorate of the GCR and associations. The members are:-

1. Director of Censuses and surveys
2. Director of Vital Social and demographic statistics
3. Director of administration and finance
4. Director integration and coordination of external relations

The functions of this Committee are:

1. Advise technically the Census Central Office
2. Send feedback on the technical reports

Technical Organs

For the operation and development of its activities, the GCR will need work teams (committees) full time.

Commissions will be run by a Chief assisted by a Deputy.

Below is presented the organization and main tasks of each organ Executive of GCR.

Commission Of Methods And Analysis (CMA)

1. Draw up and submit to the Board for approval of the GCR the sectoral plan and activities;
2. Prepare the census master plan;
3. Prepare and submit to the approval of the GCR tabulation plan;
4. Prepare and submit for the approval of GCR publications plan and dissemination of census results;
5. Coordinate and systematize the proposals for topics to be included in the census questionnaire;
6. Develop manuals for enumerators, supervisors for the pilot and main enumeration and the PES surveys of coverage;
7. Prepare the auxiliary documents to be used in census (preliminary clearance sheets, control, pairing, reconciliation, among others);
8. In coordination with the Commission, to organize and participate in training courses for members of the GCR, GPRS, enumerators and supervisors, including the investigation of coverage and quality control;

9. Referring to the Commission of administration and finance the materials and documents for printing;
10. In coordination with other committees, propose the direction of GCR the areas to be covered by the pilot census;
11. Elaborate the methodology for pilot census and supervise their implementation;
12. Organize the review and codification of newsletters and archive materials;
13. Coordinate inter-sectoral group of analysis of the results of the census, including the pilot;
14. Organize seminar for the dissemination and popularization of the analytical report of the results of the census.

The members of the Commission will be divided into two areas of work:

- a. methodological Coordination, preparation of manuals and support training activities, reception, encoding and archive of newsletters;
- b. planning, implementation and supervision of the survey coverage and quality control.

Training Committee (CC)

1. Prepare and submit for the approval of the sectoral Plan of GCR activities;
2. Determine the strategy and methods of training for the various census tasks;
3. Study of existing documentation on the census
4. Familiarity with the census roles
5. Definition of the contents of the training actions
6. Adaptation of training strategy the overall strategy defined for the census
7. Definition of training and evaluation methodology
8. Definition of criteria for the selection of the trainers and the enumerator candidates and supervisors
9. Organize and conduct training courses for the target groups defined
10. Establish contacts with institutions of higher education and secondary education
11. Propose relevant changes to school calendar
12. Define procedures for the recruitment and selection of target groups to empower
13. Establish contacts with the Ministry of education and culture (MEC) for census-related issues included in curricula
14. Define the essential themes depicting the Census Bureau to propose to the MEC
15. Coordinate with the other Committees in the implementation of the programme of activities
16. Participate in the drafting of documents for sensitizing and training in census themes
17. Coordinate and organize with mobilization and publicity Committee, ways to raise awareness of the census among community leaders, religious leaders and non-governmental organizations.
18. Coordinate with Operations Committee on logistics activities for the realization of courses

Commission Of Cartography

1. Draw up and submit for the approval of the Central Office of the sectoral plan census activities.
2. Perform segmentation of national territory, forming the enumeration areas and urban and rural areas supervisory.
3. Perform the National Cartographic inventory.
4. To prepare and organize the Experimental Census maps.
5. Supervise the cartographic work of field and Office (central and provincial).
6. Determine the necessary quantities of documents and materials for the task execution of cartography.
7. Receive and evaluate the cartographic work of provinces.

Operations and Logistics Commission

1. Distribute the maps of enumeration areas and supervision to the provinces.
2. Arrange the map collection central.
3. Organize the file of census documents and materials for different activities.
4. Update the cards and collect data on the population throughout the country.
5. Draw up the Census Plan;
6. Organize the implementation of the Pilot Census;
7. Determine the necessary quantities of documents and materials for the execution of data collection;
8. Perform the distribution, reception and archiving of documents and materials for the various census activities
9. Propose the Organization and operation of the census offices in the national territory;
10. Plan, organize and conduct data collection across the country

Commission Of Information And Publicity

1. Draw up and submit for the approval of the sectoral plan of GCR activities.
2. Promote the creation of press office belonging to the Commission on mobilization and publicity.
3. Conceive and define the means and models appropriate for the diffusion of the objectives and content relating to the whole system of the RGPH (radio programs, TV, posters, pamphlets, plays, etc.).
4. Advising the members of the direction of GCR in defining the general lines of action to be discussed in media organs ("direct line" of radio, TV round table, etc.).
5. Awareness of enumerator agents and the whole society in General by establishing simple and appropriate languages translated into posters, pamphlets, theater and other specialized propaganda depicting the census.
6. Scheduling meetings with institutions and NGOs to attract sponsorship for mobilization and publicity actions.
7. Promote and develop working relationships with institutions, NGOs and civil society.

Commission For Data Processing (CPD)

1. Draw up and submit for the approval of the sectoral plan of GCR activities
2. Make analyses of censal process and determine the best way of data processing
3. Elaborate computer programs required to comply with each of the activities of the census
4. Organize and conduct data capture using scanning
5. Keep the electronic data file and form a census database
6. Send lists with list of documents and materials required for each one of the administrative divisions of the country
7. Send lists of data consistency
8. Plan tabulation
9. Ensure the maintenance of the network of computers
10. Organize and conduct coding of questionnaires
11. Issue the technical opinion on the hardware and software to be used

This Commission will be subdivided into two sections:

- (1) Section of analysis and programming
- (2) production Section

Support Organs

Commission Of Administration And Finance (CAF)

1. Draw up and submit to the Board approval of the sectoral plan of GCR activities
2. In collaboration with the other heads of the GCR's committees prepare annual budget proposals
3. Maintain a strict accounting of expenses carried out and observe the rules and regulations of the Ministry of finance
4. Acquire the materials and equipment necessary for the exercise of the functions of the Commissions of the GCR
5. Payments and control spending of the GCR and the Provincial Offices of the census
6. Keep a detailed record of the GCR
7. Prepare the financial reports to donor agencies and Ministry of finance
8. Coordinate and compile the sectoral plans of activities of the committees
9. Collect and compile the fortnightly reports of the progress of census activities in accordance with the master plan

Secretariat

1. draw up the legal provisions necessary for implementing census
2. Prepare correspondence for the dispatch of the Directorate of the Central Bureau of the census
3. Compose the documents that are requested by the GCR
4. have a file with the documents received and dispatched
5. Enter the documents requested by the GCR
6. Issue a legal opinion on the administrative aspects of the census
7. prepare and submit for approval minutes of the meetings of the GCR
8. carry out other assignments directed by the GCR

Annex IV. Distribution of INE employees in managerial and other levels in June 2014

| <i>MANAGERIAL AND OTHER LEVELS</i> | | |
|---|-------------------|-------------------|
| | FEMALES | BOTH SEXES |
| | | |
| Presidency | - | 3 |
| Advisor | 1 | - |
| Directors | 1 | 5 |
| Deputy Director | - | 4 |
| Chief of staff | - | - |
| Heads of Central level Department | 9 ^{a)} | 5 |
| Provincial Delegates | 4 ^(b)) | 8 |
| Heads of the Central level Breakdown | 11 | 14 |
| Department heads at the level of DPINEs | 7 | 23 |
| Heads of Division at the level of DPINEs | 9 | 12 |
| Heads of Section at Central level | - | - |
| Heads of Section in the DPINEs | 1 | 1 |
| The Central technical Serv. | 179 | 102 |
| Technical DPINE | 88 | 182 |
| Foreign technicians in Central Serv. | | 1 |
| Foreign technicians in DPINE | - | |
| National technicians in the service of the Scandinavian Programme | 0 | 0 |
| National program service technical Italian | 0 | 0 |
| TOTAL | 311 | 365 |

Note: the Replacement of the Chief) includes the Department of planning, coordination and external relations

b) Includes interim delegate delegation from Maputo province.

Annex V. INE permanent staff in June 2014, by levels of qualification

| | Top | | Medium | | Basics | | Total | |
|----------------------|-----|---|--------|---|--------|---|-------|---|
| | | % | | % | | % | | % |
| Presidency | 3 | | - | - | - | - | 3 | |
| DARH | 34 | | 10 | | 16 | | 60 | |
| DICRE | 35 | | 18 | | 6 | | 59 | |
| DCI | 26 | | 17 | | 8 | | 51 | |
| DEMOVIS | 18 | | 0 | | 2 | | 20 | |
| DCNIG | 25 | | 1 | | 2 | | 28 | |
| DESE | 25 | | 2 | | 4 | | 31 | |
| GPINE | 4 | | 4 | | 12 | | 20 | |
| DPINES | 78 | | 111 | | 81 | | 270 | |
| Miscellaneous | 6 | | 2 | | 2 | | 18 | |
| TOTAL | 254 | | 165 | | 133 | | 552 | |