



STATISTICS
DENMARK



Statistisk sentralbyrå
Statistics Norway



Statistiska centralbyrån
Statistics Sweden

MZ:2006:11

The National Statistical System of Mozambique

- a 10 year résumé -

Mission Report from a short-term mission

August 22 to September 1, 2006

TA for the Scandinavian Support Program to Strengthen the Institutional
Capacity of the National Statistics, Mozambique

by

Sten Johansson



Instituto Nacional de Estatística

*Professor Sten Johansson
Address: Götgatan 42, SE 118 26)
e-mail: stenj@hotmail.com
telephone: +4670 643 3732 (mobile) +46(0)816 26 40 (office)*

Table of contents

1	EXECUTIVE SUMMARY	5
2	INTRODUCTION	6
3	ACTIVITIES DURING THE MISSION	7
4	RECOMMENDATIONS	9
•	APPENDIX 1. Persons met	10
•	APPENDIX 2. List of Literature	12
•	APPENDIX 3. Programme for the Mission.....	13
•	APPENDIX 4. Terms of Reference	15
•	APPENDIX 5. List of INE statistical activities 1996-2005.....	18
•	APPENDIX 6. Speech notes for the seminar presentation	19

List of abbreviations

CO	Scanstat Coordination Office in Statistics Denmark
Danida	Danish International Development Assistance
DKK	Danish Kroner
DSt	Statistics Denmark
EUR	European Euro
INE	Instituto Nacional de Estatística, Mozambique
INE-P	Instituto Nacional de Estatística, Portugal
MTn	Mozambique Meticaís
NOK	Norwegian Kroner
Scanstat	Consortium between Statistics Denmark, Statistics Norway and Statistics Sweden
SCB	Statistics Sweden
SEK	Swedish Kronor
SSB	Statistics Norway
USD	US Dollars
ZAR	South African Rand

1 EXECUTIVE SUMMARY

The objective of my mission was to give INE an external view on the development and performance of INE in the past 10 years since it was established in August 1996.

My framework for evaluating the activities of INE has been general principles for statistical system building based on international best-practice procedures.

My general findings are that INE activities in the past ten years are in line with the general principles for statistical system building: conducting censuses to establish sampling frames for sample surveys to be conducted on household living conditions, agricultural holdings and enterprises. For a country at the level of development of Mozambique the performance of all these activities within a 10-year period represents quite an achievement.

A main question for the future is whether Mozambique can mobilize the resources needed to continue the system building, which cannot be completed once and for all. The challenge for the future is whether what has been accomplished in the past ten years can be maintained and continuously upgraded: the infrastructure for the system of official statistics in the form of frames for sampling, and the organization for fieldwork and data processing as well as the capacity for analysis and reporting.

Systematic quality management at all levels of the organization is required for the continuous upgrading of the performance of INE and other actors in the National Statistical System of Mozambique.

2 INTRODUCTION

In July 1995, 11 years ago, I was invited to assist the National Statistics Directorate (NSD) in developing a Master plan for the National Statistical System of Mozambique. I did a short term mission from 21 July -12 August 1995 to gather facts and opinions by interviewing staff in the Statistics Directorate and in other statistical units in the relevant ministries and in the Central Bank. I returned in late September of that year to assist the NSD in arranging a conference in Maputo to launch the Master plan. This Master plan served as a basis for considering the new Law on the National Statistical System adopted 5 July 1996 followed by the Presidential Decree that established the National Institute of Statistics (INE) on August 28 1996.

To commemorate the tenth anniversary of its establishment, INE wanted to arrange a seminar about its past achievements and its future challenges. I was invited to participate in the seminar with a presentation of an external view of INE with an evaluation of progress made in the past ten years. I should mention that I have not worked with INE in the intervening years.

My mission to Maputo this time was from 22 August to 1 September 2006. This is, of course, a short period, rather too short to go into a detailed evaluation of all the INE activities during a whole 10-year period¹. My counterparts in INE were the Mr. João Loureiro, President of INE, Ms. Destina Uinge, Program Director of the Scandinavian program and Ms Alda Rocha, the Head of the INE External Relations.

I owe the three counterparts lots of thanks for informal discussions and generous services with material and information on all the aspects that I needed to understand in order to carry out my assignment. My regrets go to Ms. Destina, who made the first initial presentation of INE to me on the very first day of my mission. Her health did not permit her to participate in the following anniversary celebrations. I wish for her a speedy recovery. I would like to thank all the INE directors and staffs for their patient support with valuable information, which highly facilitated my work. Special thanks to Mr. Suazi, who very professionally served as my interpreter, and to Mr. Lars Carlsson, the team leader for the Scandinavian project, for his friendly and caring support.

The usual disclaimer applies: This report contains the views of the consultant, which do not necessarily correspond to the views of Danida or of INE.

¹ See APPENDIX 9. for a list of the more important statistical activities of INE 1996-2005 as presented by Dr. Loureiro, President of INE in his speech to the Seminar in Commemoration of 10 Years of INE.

3 ACTIVITIES DURING THE MISSION

During the mission, I had meetings with the INE President, the vice presidents and all the directors, as well as with a few external producers and users to gather information on problems and achievements in the past ten years. I regret that I could not meet Mr. Manuel Gaspar, the Vice-President for population statistics for a longer interview because he was too busy with the 2007 Population Census arrangements. However, I was fully informed by Ms. Fatima Zacharias, the Director of the Directorate of Population, Vital and Social Statistics about the results of the 1997 Population and Housing Census, and also provided with the plan for the upcoming 2007 Census.

I got a wealth of information on progress made in the ten years but also open discussions of problems and setbacks encountered. The 1997 Population Census had an estimated undercoverage of 5 percent with last publications released in October 1999, 26 months after Census Day. The Agricultural Census ran into big delays because of severe flooding in 1999/2000. Enterprise sample surveys have had big problems with non-response in its initial rounds. In a broad overview of the ten-year period, the open discussions of problems and setbacks mostly served to fortify the impression of INE staff professionalism. The three big census operations have been successfully completed with normal quality as to coverage and timeliness.

The National System of Statistics (NSS) of Mozambique is not fully centralized in the 1996 legislation although centralization was much discussed in 1995. INE has the central co-ordinating role but production of agricultural, education and health statistics is delegated to the respective sector ministries and financial statistics to the Bank of Mozambique. This was unchanged since 1995 and the 2006 evaluations of the delegated areas of statistics turned out much the same. The impressions I got were that education statistics had improved from "good" to "excellent" while both agriculture and health statistics had problems like in 1995.

I thoroughly enjoyed the lively discussions with Professor Arndt Channing, long term advisor to the Ministry of Planning and Development, who generously shared his views as a main user on the quality of various areas of official statistics – often with drastic formulations, for instance, scolding the Ministry of Agriculture for producing two statistics series with estimates widely apart on the annual harvest of the main crops, one less than 70 percent of the other. Prof. Channing praised the quality of the two rounds of the Household Budget Survey Carried out in 1996/97 and in 2002/03 as a basis for poverty assessment and used the QUIBB in the absence of anything better.

After this, I very much appreciated the meeting with Mr. Domingos Diogo at the Ministry of Agriculture. We discussed the different estimates from the annual sample surveys and the early warning system for food security. We agreed that a small project to explain the differences in the estimates was needed but he seemed to have rather good understanding of what caused the differences. With him, I could renew some of the discussions we had in 1995 on the role of agricultural statistics in the National Statistics System. My 1995 recommendation to create a stable organization for data collection nationwide by combining the existing data collection resources at the provincial level has not (yet) been implemented.

Mr. Ildio Buduia, statistics director in the Ministry of Education, was familiar to me like Mr. Diogo from the interview in 1995. He demonstrated the state of education statistics to our full satisfaction. He showed long time series in which one can clearly identify the effects on enrolment rates of the war. Coverage is still improving with special statistics on orphans. He needs to add some statistics to monitor the effects of HIV/AIDS on the stock of trained teachers.

Unfortunately we could not meet with the statistics unit in the Ministry of Health for an interview. I can only rely on secondary opinions that health statistics has problems with meeting standard user needs. Missing on the list of interviews were also the ministries of Labor, of Science and Technology and of Fisheries. I also could not meet with any representative for the Bank of Mozambique that is in charge of Balance of Payments statistics.

Of the activities listed in my terms of reference the line on “Meetings with other parts of the Mozambican society, SEN and INE” could thus not be covered to my full satisfaction in the time available. However, I managed to interview all the INE directors and the Presidency with the exception of Mr. Gaspar. The last interview was done on 1 September, the last day of my mission – with Mr. Mungamba, the director of the INE Human Resources Department. On that day, I also participated in the “Seminar on IT-strategy and IT-use” given by Mr. Lars Thygesen.

However, my main task was to make a presentation of my findings at the “Seminar to commemorate the ten years of INE”. The seminar would be attended by more than 200 participants, the central staff of INE and the staffs of the INE office in Maputo City and Maputo province. Translation into Portuguese was necessary and I was made aware that I needed to take into account that all categories of staff would be represented.

The speech notes to my Power Point presentation in English are provided as Appendix 10 at the back. The slides were translated into Portuguese by Mr. Suaze, who then also translated my speech as it was delivered. It worked well, it seemed to me, thanks to the professionalism of Mr. Suaze.

4 RECOMMENDATIONS

The time I spent in Maputo does not allow me to propose detailed recommendations to INE. Interviewing staffs for an hour or less is not a substantial enough basis for such an exercise. My general recommendations for statistical system building are in the Executive summary of the report and in my speech notes to the Power Point presentation in Appendix 10 .

- **APPENDIX 1. Persons met**

Mr. Balate, Arão	Director, Censuses and Surveys
Mr. Bernardo, Tomas	Deputy director, Integration, Coordination, and External Relations, including IT Department
Mr. Bormann, Karsten	IT advisor, Scandinavian project
Mr. Buduia, Ilidio	Director, Statistics department, Ministry of Education
Mr. Carlsson, Lars	Teamleader, Scandinavian project
Dr. Arndt, Channing	Advisor, Ministry of Planning, Professor of Purdue University, USA
Ms. Chiponde, Maria	Head of INE Delegation , Maputo City
Mr. Dade, Saide	Director, National Accounting & Global Indicators
Mr. Diogo, Domingo	Ministry of Agriculture, Statistics advisor
Mr. Gaspar, Manuel	Vice-President, Demographic, Vital & Social Statistics
Ms. Honwona, Anastacia	Head of IT Department
Mr. Johnston, Anton	Counsellor, Swedish Embassy
Ms. Khan, Zuraida	Head of Directorate, Vital and Social statistics
Ms Klingvall, Maj-Inger	Ambassador of Sweden to Mozambique
Mr. Pizarro, Atilio	Advisor to the Population Census
Dr. Levene, Valeriano da Conceição	Vice-President, Economic statistics
Dr. Loureiro, João	President of INE
Ms. Mbjaja, Leonette	INE Department of Human Resources, Quality
Mr. Nhanzimo, Azarias	Director, Sectorial Statistics and Business Statistics
Mr. Nhate, Virgulino	Technician, Ministry of Planning and Development
Novela, Isabel	Project assistant, Scandinavian project
Ms. Rocha, Alda	Head of External Relations
Mr. Thygesen, Lars	Consultant on IT Management & Strategic IT use
Ms. Uinge, Destina	Director, Integration, Coordination & External Relations

Ms. Zacharias, Fatima Director, Demographic & Social statistics

- **APPENDIX 2. List of Literature**

Anuario Estatístico 1995. Ministerio da Planificacao AND FINANCE, National Statistics Directorate (NSD)

Law no 7/96 of July 5, 1996 on the National Statistical System (Sistema de Estatística Nacional)

Presidential Decree nr. 9/96 of 28 August 1996

Anuario Estatístico 2005. Instituto Nacional de Estatística (INE)

Poverty and Well-Being in Mozambique: The Second National Assessment (2002-2003). National Directorate of Planning and Budget, Ministry of Planning and Finance.

Towards a Master Plan for the System of Official Statistics of Mozambique. Report on a short term mission by Sten Johansson. Statistics Sweden Special Report Mozambique 1995:1, dated August 12, 1995

“*Masterplan for the System of Official Statistics of Mozambique*” Statistics Sweden. Special Report Mozambique 1995:2, dated August 12, 1995

“2007 Population and Housing Census”. INE mimeograph

- **APPENDIX 3. Programme for the Mission**

on "The National Statistical System (SEN) - a 10 year résumé"
 August 22 - September 1, 2006
 Mr. Sten Johansson, Former General Director of SCB

22nd August, Tuesday 13:00 – 15:00	Arrival from Johannesburg
23rd August, Wednesday 9:00-11:00	Meeting with DICRE Director and Team Leader Presentation of SEN/INE
11:00-12:30	Meeting with IT LTA and DICRE Deputy Director
15:30-16:00	Meeting with INE President
24th August, Thursday 9:00-11:00 13:00 – 15:00	Meeting with INE Directors Visit at INE
25th August, Friday 9:00-10:00 10:30-11:30 13:00-14:00	Meeting with DPINE Maputo City (Ms. Maria Chiponde, Meeting with Ministry of Education (Mr. Ilidio Buduia) Meeting with MPD (Department of Studies) Prof. Arndt Channing
26th August, Saturday 27th August Sunday	Team Leader STA IT Management arrives
28th August, Monday	Interviews with INE directors
29th August, Tuesday	Interviews with INE directors
30th August, Wednesday	Interviews with INE directors
31st August, Thursday	"Palestra" at INE 10 Years Celebration seminar with presentations according to separate programme
1st September, Friday	Seminar on IT-strategy and IT-use. INE administration, Mr. Mungamba Meeting with INE Presidency Departure to Sweden

SEMINÁRIO COMEMORAÇÃO DOS 10 ANOS DO INE

DIA 31 DE AGOSTO DE 2006

HORAS	ACTIVIDADES
8:00 – 8:30	Chegada e registo dos convidados – Palace Complexo na Avenida 25 de Setembro (Funcionários dos Serviços Centrais, DPINEs da Cidade e Província de Maputo) Apresentação do Programa pelo Director da DARH
8:30 – 8:45	Intervenção do Presidente do INE
8:45-9:00	Entrega pelo Presidente de 5 Diplomas de Honra aos funcionários recentemente reformados
9:00-9:30	Cerimónia de tomada de posse dirigida pelo Director da DARH
9:30 – 11:30	Reflexão Interna sobre 10 anos do INE e os caminhos para o futuro: <ul style="list-style-type: none">• Avaliação do SEN pelo Professor Sten Johansson (convidado do INE) Debate moderado pelo Presidente
11:30-12:00	Intervalo/Lanche
12:00-13:30	Reflexão Interna sobre 10 anos do INE e os caminhos para o futuro: <ul style="list-style-type: none">• Proposta de Missão e Visão do INE• Perspectivas para o Próximo Quinquénio (2008-2012) Apresentado pelo Director Adjunto da DICRE Sessão de debate moderado pelo Presidente
13:30-13:40	Intervalo
13:40	Almoço

- **APPENDIX 4. Terms of Reference**

A short-term mission on “The National Statistical System (SEN)
--- a 10 year résumé –
August 22-29, 2006
within the Scandinavian Assistance to
Strengthen the Institutional Capacity of INE/Mozambique

Consultant: Prof. Sten Johansson, former General Director SCB

Counterparts: Mr João Loureiro, President INE

Ms Destina Uinge, Program Director of the Scandinavian
program

Ms Alda Rocha, External Relations

Background

In 1996 the Government of Mozambique restructured its planning and finance administration institutions. The National Planning Commission was incorporated into the Ministry of Finance and its Statistics Directorate was transformed into an autonomous institute – INE. The National Statistical System (SEN – Sistema de Estatística Nacional) was created (Law nº 7/96 of July 5) in 1996 and it comprises INE, the High Council for Statistics, Bank of Mozambique and the Co-ordination Council for the Population Census. SEN is coordinated by the High Council of Statistics chaired by the Prime Minister or by a member of the Government. The council consists of the President of INE, representatives from ministries, universities the private sector.

INE was formally constituted through a Presidential Decree (nº 9/96 of August 28), and it became the central executive body of the SEN. INE is in a legally binding manner responsible for the overall collection, production and dissemination of statistics in the country within the framework of the SEN. INE is managed in the daily work by the President, and the High Council of Statistics has the responsibility to propose the work plan for the statistical production in Mozambique. INE has gone through a very rapid growth focused on the statistical production.

INE can delegate authority to specific departments of some ministries to collect and publish official statistics and has so far delegated responsibility to departments of the Ministries of Health, Education, Agriculture, Labour, Fisheries and Science and Technology for certain components of the national statistical system, such as data indicating coverage of health programs, education enrolment figures and annual agricultural surveys. A further decentralised structure is present by the Provincial Branches of INE. Bank of Mozambique is responsible for the balance of payment statistics. INE is placed under the tutelage of the Council of Ministers and is reporting to the Council of Ministers via the Minister of Finance.

The overall development purpose of the activities of INE and SEN is the enhanced use of statistical information for decision-making and provision of information. Among the most important users are public administration and the academic/research community, bilateral and multilateral donor organisations, media, NGOs and unions.

The Government of Mozambique has embarked on a process of strengthening INE so that it efficiently can generate reliable, relevant and timely statistical information particularly for the monitoring of the Absolute Poverty Reduction Action Plan (PARPA).

SEN is presently guided by a five-year strategy plan (Plano Estratégico do Sistema Estatístico Nacional 2003-2007). The plan has the objectives to ensure that:

- statistical information is produced to guide public policy decisions, business decisions and decisions by other organisations and that the public at large, official policy and other actions are guided by statistical information,
- adequate statistical information is provided and disseminated in a user-friendly and timely manner,
- this statistical information is produced in a cost efficient manner and in a proper order of priority given the resource limitations.

On the basis of the strategic plan, a five-year operational plan - Plano Estatístico Nacional 2003-2007 - has been elaborated for SEN. That plan was approved in November 2002 by the High Council of Statistics and is the second five-year plan related to the activities of INE. The plan stipulates the activities to be implemented including censuses and surveys and overall development activities.

Organisational Structure of INE

- **President**
- **Two Vice Presidents:**
 - Demographic, Vital, and Social Statistics (VPINED)
 - Economic Statistics (VPINEE)
- **Six Directorates:**
 - Demographic, Vital, and Social statistics:**
 - Directorate for Censuses and Surveys (DCI)
 - Directorate for Demographic, Vital and Social Statistics (DEMOVIS)
 - Economic Statistics:**
 - Directorate for National Accounts and Global Indicators (DCNIG)
 - Directorate for Sector Statistics and Enterprises (DESE)
 - Horizontal Areas:**
 - Directorate for Administration and Human Resources (DARH)
 - Directorate for Integration, Coordination and External Relations (DICRE)
- **Office of the President**
- **Eleven Provincial Branches (DPINEs)**, situated in each of the provincial capitals and one in Maputo City.

The number of permanent employed staff at INE is at present 406 persons, 192 working at the headquarters in Maputo and 214 working at provincial level in the DPINEs.

8.1.1. Objective

The objective of the mission is to give INE an external view on the development and performance of INE within its environment composed of SEN, the Mozambican society and the surrounding world. What has been well done? What has been less well done? Have there been any alternatives? What are the differences between the environments for production of official statistics in Mozambique and internationally, comparing now with 10 years ago? What are the challenges to be met in close and more distant future? And more ...

8.1.2. Expected results

The mission is expected to generate ideas that will make the work of INE function better and specially ideas that will function as input for the strategic plan 2008-2012.

Activities

- Meetings with the president, the vice presidents and directors.
- Meetings with other parts of the Mozambican society, SEN and INE
- A Presentation of findings at the INE 10 year celebration
- Discussions with the STA on IT Management and Strategy, Mr Lars Thygesen that will be here during the period 24-31 August (and that also will do a speech at the INE 10 year celebration).

Tasks to be done by INE to facilitate the mission

- Elaborate ToR for the mission
- Prepare and supply the consultant with necessary documents and information, such as mission reports, strategies, plans etc.
- Supply good working conditions for the consultant
- Provide a detailed program for the consultations

Consultant

Prof. Sten Johansson, former General Director SCB

Main counterparts:

Dr João Loureiro, President INE
 Ms Destina Uinge, Program Director of the Scandinavian program
 Ms Alda Rocha, External Relations

Timing of the mission

August 22-29, 2006

Report

The consultant will prepare a draft report to be discussed with INE before leaving Maputo. The Consultant will submit a final draft to INE for final comments within one week of the experts have returned to work. Statistics Denmark as Lead Party will print the final version within 3+ weeks of the end of the mission. The structure of the report should be according to Danida format.

The Counterpart has to ensure that the final printed report has at least a summary in Portuguese if the main report is in English – or vice versa.

These Terms of Reference were prepared by

Day / / /

Approved by/in the name of the President of INE

Day / /

Prepared by:

• APPENDIX 5. List of INE statistical activities 1996-2005

- The Second General Census of Population and Habitation in 1997;
- Two rounds of the Household budget and expenditures survey (1996/97 and 2002/2003);
- Two rounds of the Survey of Demographic and Health of 1997 and of 2003;
- Agricultural Census in 2000;
- Business Census 2002 - 2003;
- National survey on Reproductive Health and Sexual Accompaniment of the Adolescents and Young;
- Survey of Family units on Basic Pointers of Well Being (QUIBB) ;
- Integrated Labor Force Survey in 2004;
- Informal Sector Survey 2005;
- Census of Non-Profit organizations 2004;
- Implementation of the System of National Accounts of the United Nations (SNA 1993);
- Update and expansion of the Consumer Price Index;
- Launching of new instruments for the collection of data on the Economic Sector;
- Consolidation of the Coordination between the producers of official statistics on both the national and international level;
- Fine-tuning of our methods for the dissemination of statistics;
- Creating and fine-tuning our normative instruments within the statistical activities (statistical classifications, nomenclatures and concepts).

- **APPENDIX 6. Speech notes for the seminar presentation**

Slide 1

INE Anniversary 1996-2006

by
Prof. Sten Johansson
Statistics Sweden

Dear friends and colleagues,

I am very honoured to be invited back to take stock of what has happened to the National Statistical System since I was here in August 1995, a little more than 10 years ago.

I was looking for some simple way to get a first overview so I went to the Statistical Yearbook for 1995 and compared it with the yearbook for 2005.

Number of pages in the statistical yearbook 1995 and 2005			
Areas of statistics	1995	2005	Change
Geography and climate	6	6	1.0
Population and social statistics	19	39	2.1
Production of goods and services	17	41	2.4
Macro-economic statistics & prices	7	21	3.0
All	49	107	2.2

Of course, I find there that a lot has happened. The section on Geography and Climate is not much changed.

The number of pages for population and social statistics has more than doubled reflecting the increase in data available.

The chapter on production of goods and services has increased even more.

The small section on macro-economic statistics of only 7 pages in 1995 has tripled to 21 pages in 2005.

The major operations and activities 1996-2005 listed in President Loureiro's speech included 16 items, including the three Censuses of Population, of Establishments and of Agriculture.

Outline of presentation

1. Statistics in the democratic process
2. Statistical system building
2. INE infrastructure 1995 and 2006

My presentation will be in three parts:

I will first explain the role of official statistics in the democratic process, how citizens can make sure that democratic decision-making is based on knowledge and truth.

Second I will explain how a country can build its national statistical system on a firm basis.

Third, I will assess the national statistical systems and INE in particular in 2006 with its predecessor in 1995 on the most important points.

Epistemology

= the normative theory of knowledge

= how to secure good answers to important questions

I want you to learn a new word “EPISTEMOLOGY”

It is usually defined as the **NORMATIVE THEORY OF KNOWLEDGE** but that does not explain much.

Those of you who know the word may associate to philosophical discussions with hair-splitting arguments about the nature of knowledge, and if true knowledge is at all possible.

That is not what I will do, I mean the hair-splitting.

My concern is with how to secure good answers to the important questions in the democratic decision-making process.

How should citizens in a democracy act to ensure that decision-making in politics and in the economy is informed by the best possible knowledge?

The "important" questions:

- 1) How is the situation?**
- 2) How ought it to be?**
- 3) What should be done?**

Three general questions must always be considered:

1. How is the situation?
2. How ought the situation to be?
3. What should be done?

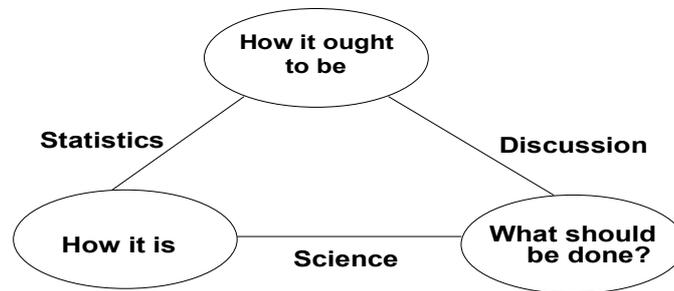
How should citizens in a democracy go about getting good answers to these three questions, which are very different in nature? To get good answers we need to use different procedures for each of the three.

We get the best answer to the first question by counting and measuring objectively, that is, with statistics.

The best answer to the second question comes about by discussion among citizens, who form political parties to promote programs for social and economic development.

For the third answer, the citizenry need science and research on cause and effect, how things work.

Epistemology of the democratic process



Answers to the first question must be true, correct as facts so that citizens and their government can assess the situation, whether the situation is improving or not, or whether the situation is better or worse than in other regions or in other countries. Is the situation in Mozambique improving or not?

Statisticians must go out in the whole country to count how many are poor, how much maize is produced, how many households have access to clean water, and for answers to many other questions. Citizens cannot get good answers to such questions of fact by a majority vote or by logical reasoning by experts. They must have statistics made.

Answers to the second question on how the situation ought to be are best arrived at by discussion among citizens, by political programs being ventilated in public by the good debaters and promoted by the political parties. There are no objective answers to this question that can be arrived at by asking experts or by objective counts and measurements. The interests of all must be weighed together to a common will.

Answers to the third question, on what should be done, also require discussion among citizens. Expert knowledge is now more important than when discussing how it ought to be. This is because **efficiency** and **effectiveness** are important criteria in selecting measures. Identifying causal mechanisms that make programs work or fail or cost more or less is the important contribution that experts can make

System of official statistics

- Population & social statistics system
- Economic statistics system
- Environment statistics system

Countries need three systems of official statistics:

In the population and social statistics system, we count persons and households, their age and sex, their marital status, their occupations and industry, their levels of health and education, etc.

In the economic statistics systems, we estimate the value of productive activities of persons, households and enterprises in terms of money. The values of all productive activities in a country are summed up in the GDP, the Gross Domestic Product.

In the environment statistics system, we collect data on how the natural resources of our country are used and misused, the air, the water, the land, the forests, the minerals, the sources of energy, when humans are exploiting those resources.

Infrastructure for official statistics

- A. Sampling frames (Censuses)
- B. Systems of sample surveys
- C. Administrative data

The main elements in a system of official statistics are:

- A. Sampling frames to be established and updated by censuses;
- B. Systems of sample surveys, and
- C. Administrative data

The Population census is important to get data for the nation, the provinces, the districts, even down to the villages by demographic, social and economic characteristics. The census is also the sampling frame for the system of household surveys.

The census of enterprises and establishments and the agricultural census have the same roles as the population census to give statistics at a detailed level and to function as sampling frames for the system of enterprise and agricultural surveys.

Administrative data from customs, taxation, schools, health care establishments, courts and police, etc. will become increasingly important as data sources when all public administration start using computers.

Statistical system building

1. For each new census use the experiences of the previous one.
2. Each new census is a pilot for any future round.
3. Coordinate definitions and classifications with international (UN) recommendations.
4. Document primary data in detail for the future

Four principles of statistical system building are:

1. Each new census or survey should build on the experiences of the previous surveys conducted.
2. Each census or survey should be seen as a pilot or a preparatory for any future round.
3. Coordinate definitions and classifications between censuses and surveys in line with international (UN) recommendations.
4. Document primary data in detail so that they can be easily used again and again, also after several years by many different users. Keep in mind also that completed questionnaires, forms and manuals will be interesting historical records for historians in the future, even hundreds of years from now!

Comparisons over time is the core function of official statistics.

1. Value of a new census or survey increases by comparison with previous ones.
2. Value of old survey increases whenever a new survey is added to previous surveys.
- 3.
4. Comparisons help statisticians avoid repeating mistakes, improve methods and assess quality of estimates.

1. Value of a new census or survey increases if its results can be easily and reliably compared with the results of previous surveys in a time series.

2. The value of an old survey or census increases whenever a new survey or census is added with new possibilities to compare results.

3. Comparisons between survey rounds help statisticians technically, to avoid repeating mistakes, to improve methods and to assess the quality of estimates.

Functions of official statistics

1. Instrument of good government to diagnose problems, guide action and evaluate progress made.
2. Instrument of the citizens to hold government accountable.
3. Serving the mass media with facts as a basis for public debate on social, economic and environmental issues.
4. Cooperate with universities and other research institutions to promote qualified use of official statistics.
5. Cater to the needs of businesses and their organizations for statistical information on societal states and trends.
6. To promote peace and serve international exchange and co-operation in trade, tourism, migration, crime prevention, etc

1. Official statistics is a fundamental instrument for good government to diagnose problems as to size, severity and causes, to guide action and policies and to evaluate progress.

2. Impartial and independent official statistics is an instrument of the citizens to hold governments accountable, forcing governments to stick to the truth and to foster evidence-based public debate.

3. Providing media with impartial independent official statistics to be a basis for public debate on social, economic and environmental issues.

4. Cooperate with universities and other research institutions to promote qualified use of official statistics in research.

5. Cater to the needs of businesses and their organizations for statistical information on societal states and trends.

6. To be one of the instruments for international exchange and cooperation in trade, tourism, transport, crime prevention, etc.

The three transitions 1995

- (1) From civil war to peace and reconciliation**
- (2) From one-party rule to multi-party democracy**
- (3) From centrally planned to decentralized market economy**

Mozambique was under dramatic change in the three societal transitions in August 1995:

One transition was from tragic and brutal civil war to peace in the whole country and reconciliation between groups.

The second transition was from one-party rule to multi-party democracy.

The third transition was from a centrally planned economy to a decentralized market economy.

These three transitions set the context for re-building the statistical system.

Peace was a precondition for collecting information from households and enterprises and at the same time a test of whether there was peace in the whole country.

Independent, impartial and objective official statistics is one of the basic instruments for democracy.

Market economy requires statistics but collected very differently from in the planned economy.

Diagnosis of NSS 1995 (1)

- (1) The legal basis for the National Statistical System is weak.
- (2) The basis for population and social statistics is weak until census is conducted
- (3) The basis for economic statistics is weak until census of economic establishments has been conducted.
- (4) A more centralized NSS for independence and efficiency was recommended

The legislation for the National Statistical System in 1995 was designed for a planned economy with state-owned enterprises and land. A new law was needed, one adapted to market-economy and democratic rule.

The sampling frame for population and social statistics surveys was from 1980 and updated since then with projections only. A complete, new population census was needed.

The sampling frame for business surveys had been eroded by the transition to market economy with the growth of small businesses in the informal economy. An Establishment census was needed to make possible sample surveys with enterprises.

The National statistical system as a whole was partly sectorized with agricultural, education and health statistics done separately. Of these, education statistics worked well while agriculture and health statistics had problems. I recommended a more centralized system.

Diagnosis of NSS 1995 (2)

*"not the worst off in statistical capacity
among African countries"*

High quality fieldwork had been carried out

Timely data processing achieved

Timely reporting achieved

However, there were also some strengths in the statistical system in 1995. It was not the worst off in statistical capacity among the African countries, I wrote in my report.

Fieldwork of high quality had been successfully carried out.

The particular achievements were that data processing had been done in a timely manner, which was rather unusual in the other countries that I had visited.

And more remarkably, reports had been written and released in a timely manner within less than 12 months after end of fieldwork.

I was particularly impressed by the household budget survey, its conception as a truly integrated comprehensive survey. I took the idea with me back to Statistics Sweden and helped implementing it in Lao PDR and most recently in Cambodia

NSS infrastructure 2006

1. Legal basis of NSS
2. Sampling frame for household surveys
3. Sampling frame for the formal economy
4. Fieldwork capacity
5. Data processing capacity
6. Reporting and disseminating capacity
7. Offices and amenities

1. The legal basis of the system has been reformed. The new Statistics Law was adopted 5 July 1996 followed by a Presidential Decree on 26 August. From this date Mozambique has a modern Statistics Law satisfying all the international requirements.

2. A successful Population and Housing census was conducted in August 1997, which laid the basis for sample surveys of households.

3. The Census of Enterprises and Establishments in 2002/03 laying the basis for sample surveys of enterprises.

4. Fieldwork capacity for big and small surveys of both households and enterprises has been proved.

5. The same is true for data processing and reporting. Two days ago INE presented very nice final reports on the Informal sector and on the Labour force, both within 12 months after end of fieldwork, and both had presented preliminary results six months ago. Very impressive indeed!

On the last point I find things unchanged. Central staff has more than doubled but the central office is still on the 5th and 8th floor in the same number of rooms! However, on this last point we saw the future, the fantastic new provincial office for INE in Maputo province.

Thoughts about the future

1997-2006 cycle successfully completed
INFRASTRUCTURE has been built

Population Census 2007 begins new cycle
Focus on QUALITY MANAGEMENT

Build on experiences gained. Be confident!
INE is on the right course

A first 10-year population census cycle has been successfully completed. The entire infrastructure has been established, including the sampling frames for the systems of household surveys, for the system of enterprise surveys and for the system of agricultural surveys. First, second and in some cases third and following rounds of different sample surveys have been conducted. Invaluable experiences have been gained.

The 2007 Population Census begins a new 10-year cycle. In this second cycle you will want to focus on quality improvement in all the phases of the censuses and the surveys, including in particular the updating of the three sampling frames. By systematic quality management it will be possible to reach improvements in sampling, in fieldwork logistics, in data processing and in analysis, reporting and dissemination.

You will know how to build on the experiences gained. From what I have seen and learned you can be confident. INE is on the right course in building the national statistical system for Mozambique.

So, Stay on Course!