

Department of Economic and Social Affairs
Statistics Division

**Compilation of Basic Economic Statistics in African
Context: Challenges and Good Practices**

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Table of contents

| | |
|---|-----------|
| Preface | 4 |
| Acknowledgements | 5 |
| Introduction | 6 |
| 1. Scope of Basic Economic Statistics | 6 |
| 2. Status of Basic Economic Statistics compilation in Africa | 6 |
| 3. Content of the Handbook | 7 |
| I. Basic economic statistics in Africa: An overview | 9 |
| 1. Introduction..... | 9 |
| 2. General information..... | 11 |
| 3. Institutional arrangements..... | 12 |
| 4. Economic census..... | 13 |
| 5. Economic surveys of the formal sector: survey frames | 14 |
| 6. Economic surveys of the formal sector: coverage and periodicity..... | 16 |
| 7. Data contents of economic surveys | 17 |
| 8. Informal sector | 18 |
| 9. Supplementary topics | 21 |
| II. Experiences of selected African countries | 23 |
| Algeria..... | 23 |
| Angola | 25 |
| Botswana | 27 |
| Cameroon..... | 32 |
| Central African Republic | 34 |
| Egypt | 36 |
| Ethiopia | 39 |
| Gabon..... | 46 |
| Ghana | 48 |
| Kenya | 60 |
| Malawi | 63 |
| Mali | 69 |
| Mauritius | 71 |
| Morocco | 78 |
| Mozambique | 81 |
| Namibia | 83 |
| Niger..... | 86 |
| Nigeria..... | 89 |
| Senegal..... | 97 |
| Seychelles..... | 102 |
| Sierra Leone | 105 |
| South Africa | 110 |
| Swaziland | 121 |

| | |
|---|------------|
| Tanzania | 123 |
| Tunisia..... | 127 |
| Uganda | 131 |
| Zambia | 135 |
| III. The way forward: good practices and their implementation..... | 139 |
| 1. Strengthening national statistical infrastructure..... | 139 |
| 2. Economic surveys | 142 |
| 3. Use of administrative data..... | 146 |
| 4. Statistical business register | 149 |
| 5. Informal sector | 150 |
| 6. Basic economic statistics and national accounts..... | 152 |
| 7. Data quality and metadata..... | 153 |
| 8. Dissemination and work with users | 160 |
| 9. Reducing the response burden and improving the response rates | 164 |
| 10. Role of international, regional and sub-regional organizations | 168 |
| IV. Annexes..... | 169 |
| Annex 1: Recommendations of the Delhi Group on the informal sector | 169 |
| Annex 2: Measuring the informal sector | 172 |
| Annex 3: Data Quality Assessment Frameworks | 181 |
| Annex 4: Metadata Components..... | 184 |
| Annex 5: Country Note Questionnaire | 189 |

Preface

Over the years, the United Nations Statistical Commission has considered a number of conceptual and practical issues pertinent to the compilation of economic statistics. The Commission has also been concerned with the capacity of national statistical systems to meet the high demand for timely economic statistics of high quality, produced in the most cost effective manner.

At its thirty-seventh session held in March 2006, the Commission endorsed the United Nations Statistics Division's initiative to promote an integrated approach to compilation of economic statistics¹. Such an integrated approach would encompass both industrial and services statistics aiming at compilation of basic economic data across sectors, consistent with macroeconomic statistics, and would result in an integrated data system responsive to the need for a wide range of data for a wide range of data users, including policymakers in Governments, industry and the business community. The Commission further recommended that good practices in this area should be identified, documented and made available to the interested countries to assist in their practical work.

The Handbook "*Compilation of Basic Economic Statistics in African Context: Challenges and Good Practices*" was prepared in accordance with this initiative. The purpose of this Handbook is to assist African countries to strengthen their capacity to compile high quality basic economic statistics by learning from each other's experience using the information on country practices presented in a structured and coherent manner. It is hoped that description of good practices in the compilation and dissemination of basic economic statistics will provide useful guidance for overcoming critical issues and challenges in the future.

The proceedings of the two workshops on the compilation of basic economic statistics organized jointly by the United Nations Statistics Division (UNSD) and the African Center for Statistics (ACS) (16-19 October 2007, Addis Ababa, Ethiopia), and by the United Nations Statistics Division and Statistics South Africa (SSA) (23-26 July 2007, Pretoria, South Africa) as well as the results from the survey of African countries practices in basic economic statistics carried out by UNSD during 2008 and 2009, provided the major inputs for the preparation of the Handbook. The Handbook also benefited from numerous comments received from country and regional organizations experts.

The main target audience for this Handbook is the staff of national statistical offices responsible for the compilation of economic statistics, though it is also useful reference for regional and international organizations collecting and disseminating economic statistics aggregates as well as for the users of these statistics.

¹ United Nations Economic and Social Council, Statistical Commission 2006, Document E/CN.3/2006/5

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The preparation of the Handbook was undertaken under guidance and supervision of Mr. Vladimir Markhonko. Mr. Thierno Aliou Balde was responsible for the preparation of the text under the direct supervision of Ms. Youlia Antonova who provided guidance and review of the document in its minute details. They were also supported by Ms. Arlene Adriano.

Introduction

1. Scope of Basic Economic Statistics

1. Basic economic statistics are produced with the main objective to provide information about the structure of an economy and its sectors to policy makers and business community to assist them in facts based decision making as well as to provide a foundation for the compilation of sound national accounts. These statistics reflects characteristics and activities of units engaged in production of goods and services obtained by means of direct statistical observation (census or survey) or derived from administrative sources. The production units of both formal and informal sectors, as well as producers of market and non-market services are in scope of basic economic statistics.

2. The term “basic economic statistics” (BES), as used in the Handbook, refers to a subset of economic statistics primarily concerned with the characteristics and activities of units engaged in the production of goods and services for market purposes only. Taking into account the role of the *International Standard Industrial Classification of All Economic Activities, Revision 3.1* (ISIC, Rev.3.1)² as the activity classification for use in all applicable areas of economic statistics, the BES could be defined in terms of ISIC as covering all units classifiable in ISIC sections A - Agriculture, hunting, forestry, B - Fishing, C - Mining and quarrying, D - Manufacturing, E - Electricity, gas and water supply, F - Construction, G - Wholesale and retail trade, H - Hotels and restaurants, I - Transport, storage and communications, J - Financial intermediation, K - Real estate, renting and business activities, M - Education, N - Health and social work, and O - Other community, social and personal service activities. If certain units classifiable in those sections are engaged in non-market production, they are not covered in the scope of BES. Examples of such units are those providing non-market services in education, health or community, social and personal service activities. Activities of entities in L - Public administration and defense; compulsory social security, P - Activities of private households as employers and undifferentiated production activities of private households and Q - Extraterritorial organizations and bodies are also excluded.

3. For practical reasons certain economy wide types of economic statistics such as balance of payments statistics, monetary and financial statistics, government finance statistics, statistics of merchandise trade as well as price and labor force statistics are also left out from the scope of this publication.

2. Status of Basic Economic Statistics compilation in Africa

4. The compilation of high quality basic economic statistics is essential to the ability of national statistical offices to meet the data needs of policy-makers, business community and to compile sound national accounts. In many countries however,

² United Nations publication, Sales No. E.03.XVII.4.

including African countries, basic economic statistics are not complete or are of poor quality. A number of assessments of statistical development in the African region have highlighted serious problems and challenges with the compilation and dissemination of statistical data, resulting in inadequate statistical information in general.

5. The status of basic economic statistics in Africa is characterized by many difficulties and weaknesses, the most important of which being a frequent non compliance of economic censuses and surveys with international statistical standards and sound statistical techniques in sampling and data processing; absence of or outdated business registers; inadequate frequency of data collection; low response rates; lack of or inadequate coverage of informal and services sectors by existing surveys and, as a consequence a non compliance with the System of National Accounts, 1993 (1993 SNA)³. The existing institutional problems such as insufficient resources in the national statistical offices and unsatisfactory level of collaboration between the various agencies of the national statistical system, especially between the Central Bank, line ministries and the national statistical office also hamper the advancement of BES compilation in African region.

6. Concerned with the difficulties faced by African countries in the efforts for strengthening their statistical capacity, the United Nations Statistics Division has decided to put significantly more attention to the enhancement of basic economic statistics compilation in its statistical capacity building programme for African countries. Accordingly, the Statistics Division has cooperated closely with the African Center for Statistics at the UNECA and other regional and sub-regional partners, including among others, the African Union (AU), the African Development Bank (AFDB), the Economic Community of West African States (ECOWAS), the Southern African Development Community (SADC) etc., in order to create as much synergy as possible with their ongoing activities and to use the available resources in the most efficient way. Publication of this handbook is one concrete step in this direction.

3. Content of the Handbook

7. The Handbook “*Compilation of Basic Economic Statistics in African Context: Challenges and Good Practices*” was developed to ensure that the information about African countries’ work programmes in economic statistics, their practices and needs are made available in one document to allow for a better exchange of experience and ideas as well as for monitoring the progress in the implementation of the integrated economic statistics framework. Also, the Handbook identifies and addresses a number of critical issues and challenges faced by African countries in compilation and dissemination of basic economic statistics. Finally, it describes good practices which, when implemented taking into account specific circumstances of each country, will contribute towards improvement of the compilation and dissemination of these statistics.

³ United Nations publication, Sales No. 94.XVII.4

8. The Handbook had been prepared by UNSD pursuant to the conclusions of the two workshops on basic economic statistics for African countries organized in 2007 in Pretoria, South Africa and in Addis Ababa, Ethiopia respectively. The workshops provided an excellent opportunity for African countries to have an overview of a wide range of issues relevant to compilation of basic economic statistics, exchange both positive and negative experiences, review priorities and strategies and to set the stage for further work.

9. The Handbook incorporates also inputs from the national statistical offices of African countries received during the survey on the country practices and the subsequent consultations with them on the Handbook's content. The survey was first conducted among the participants of the second workshop held in Addis Ababa and later on, it was extended to the remaining countries. Topics covered in the survey included issues of key importance for the organization and conduct of economic statistics programmes at national level, such as the institutional environment, the types of economic surveys/censuses conducted for both the formal and informal sector, the methods of data collection and enumeration, the types of collected variables, the data collection and processing techniques used, the future plans, and the major issues and challenges encountered by countries in the area of basic economic statistics. Regional and sub-regional partners also contributed to the review of the document and proposed ways of improving the text.

10. The content of the Handbook is organized into three chapters. The first chapter "Basic economic statistics in Africa: An overview" gives a summary of the status of basic economic statistics compilation in African countries, based on the aggregated results of the conducted survey. The second chapter "Experiences of selected African countries" contains a detailed description of national practices in compilation and dissemination of basic economic statistics. The individual country information in this chapter is organized according to the structure of the survey questionnaire. Information from additional methodological documents provided by countries and clarifying specific parts of basic economic statistics compilation is also included. The last chapter "The way forward: good practices and their implementation" identifies good practices and provides guidance on their implementation intended to help African countries in dealing with the issues and challenges encountered in their daily activities in the area basic economic statistics.

I. Basic economic statistics in Africa: An overview

1. Introduction

1. This chapter gives an overview of the state of basic economic statistics compilation in Africa by presenting the aggregated results of the survey study on African country practices conducted by UNSD in July 2007-December 2008. In addition to the information provided from filled questionnaires, the official websites of countries have been used to complement their replies. The survey questionnaire⁴ has been prepared in English and French in order to increase the response rate by allowing African countries to respond in their own official language. It has been designed to provide a clear picture of the current country practices in the compilation of basic economic statistics, while at the same time allow for comparisons between the practices of individual countries. The structure of this chapter, in terms of the contents of the sections, follows closely the one adopted in the questionnaire.

2. The questionnaire had eight sections:

- Section entitled *General information* asked about the legal environment for the production of official statistics in the country such as the existence of a statistical law or other regulations that define rights and responsibilities of the statistical office. Also, this section inquired how the work on economic statistics is organized within the statistical office by requesting the organizational chart and the work programme in the area of economic statistics;
- Section 1. *Institutional arrangements* was intended to collect information on the organization of the statistical system with respect to the production of economic statistics. The section asked whether there are other agencies besides the National Statistical Office responsible for the compilation of statistics for particular economic activities;
- Section 2. *Economic census* was focused on one of the most commonly used data sources for compilation of economic statistics – the economic census. The topics covered included the periodicity of conducted economic censuses, units surveyed and whether a specific threshold was applied, as well as, whether administrative data were used to supplement direct enumeration. Countries had the opportunity to indicate their plans for conduct of an economic census in the future;
- Section 3. *Survey frames used in surveys of formal sector* collected information about units of formal sector of the economy and types of survey frames used (area based frame, list based frame, etc.). Business register maintained by countries for statistical purposes is recommended as the most appropriate source from which to derive the sampling frame for BES surveys. If Statistical Business Register does

⁴ See Annex 5 for the content of the questionnaire.

- not exist, countries were asked to indicate their plans on establishing statistical business registers in the future;
- Section 4. *Coverage and periodicity of economic surveys of formal sector* asked countries to indicate which one of the following options they apply: (i) the survey may completely enumerate all units above a given cut-off point and sample the others; or (ii) estimates for the small units may be made from administrative data sources. In addition, countries should indicate the periodicity of these surveys (infrequent, annual, quarterly or monthly) as well as the collection method;
 - Section 5. *Data contents of economic surveys and their periodicity* aimed to collect information about what type of data items/variables countries include in their economic surveys according to their periodicity;
 - Section 6. *Informal sector* concentrated on one of the major challenges for developing countries – statistical coverage and measurement of the informal sector units and their activities. The section included questions about the means of statistical observation through which data about activities of the economic units in the informal sector are collected and compiled, their periodicity and the type of data items collected;
 - Section 7. *Supplementary topics* asked countries to provide information on several other important issues that accompany the production of basic economic statistics at national level such as the dissemination of the data and metadata, the availability of advance release calendar, relations with users and factors and challenges that impede the compilation of basic economic statistics.

3. A total of 27 African countries responded to the questionnaire and many of them provided additional information on their practices in the compilation and dissemination of basic economic statistics. In terms of GDP and total number of population these countries represent 84 percent⁵ from the regional GDP and 73 percent⁶ of the total population in Africa during 2006 (see Table 1 below). These results are judged representative enough and sufficient to allow for a meaningful analysis of the current state of basic economic statistics compilation in African region.

⁵ Source: UNSD National Accounts Main Aggregates Database, available at: <http://unstats.un.org/unsd/snaama/selectionbasicFast.asp>.

⁶ Source: UNSD Demographic Yearbook, 2006.

Table 1: General information on the survey

| | <i>Number of countries</i> | <i>GDP for year 2006 (in millions U.S. Dollars)</i> | <i>Population for year 2006 (in thousands)</i> |
|--------------------------|------------------------------------|---|--|
| | (1) | (2) | (3) |
| African Region | 55 | 1,128,949 | 942,036 |
| Respondents | 27 | 946,220 | 687,977 |
| Response rate (%) | 49 | 84 | 73 |

2. General information

4. The results of the survey indicate that the legal basis for production of official statistics in general and economic statistics in particular are mostly adequate as all countries that responded to the survey indicated that they have in place a Statistical Law/Act defining the rights and the responsibilities of the National Statistical Office. Under this Law, the National Statistical Office (NSO) is the principal data collecting and disseminating agency responsible for the organization of the activities of official statistics.

5. Laws regarding National Statistical Offices of African countries are largely similar, although their exact wording may differ. A large variation, however, has been observed in the dates of adoption of Statistical Laws. For some countries like Nigeria and Kenya it dates back to 1957 and 1961, for the others like Niger the act is more recently adopted (in 2004). There is little information in responses of some countries including Malawi, Namibia, Swaziland and Zambia, on the amendments of old statistical laws, which raises the question about the need for their modernization as the statistical systems of those countries have developed a lot since early sixties and those laws may no longer be adequate to respond to the new organizational circumstances and development goals. The other group of countries, that includes Egypt, Ghana, Kenya, Mauritius, Morocco, Nigeria, Seychelles and Tanzania, has been progressively updating their statistical laws/acts in order to cope with new development policies and fundamental principles of the organization of official statistics.

6. *Organization of economic statistics within the national statistical offices.* Survey results highlighted also that with respect to the organization of economic statistics activities within the national statistical office, countries can be grouped into three main categories.

- (a) In the first category, which accounts for half of respondent countries, the economic statistics programme is generally handled by an entire separate unit (department, branch, division or section, etc.) with various sub-units involving a generally satisfactory number of high level and supporting staff operating under the responsibility of a director. Countries in this category include South Africa, Nigeria, Ethiopia, Morocco, Senegal, Uganda, etc. Their economic statistics programmes cover nearly all 14 ISIC sections listed in the questionnaire and in many cases these countries have separate sub-units for major economic sectors such as industrial statistics, transport statistics, communication, trade etc. It is also common for them to have a separate unit responsible for national accounts;
- (b) The second category includes countries like Egypt, Ghana, Tunisia and Kenya, in which the economic statistics programme although comprehensive, is conducted under various units in the national statistical office in collaboration with other government line ministries and specialized agencies. These countries face some serious human resources problems;
- (c) The third category encompasses a few countries with weak administrative capacities like Angola, Central African Republic, Swaziland, etc., in which the economic statistics programme is conducted by small, often understaffed units. Moreover, in these countries, economic statistics is compiled only within the national accounts framework and often covers a limited number of economic activities.

3. Institutional arrangements

7. The survey results highlighted that all respondent countries have established and implemented an economic statistics programme, however, the scope of this programme in terms of activities covered and agencies involved differs. In most of the countries, the compilation of economic statistics is significantly decentralized and handled by various agencies within the national statistical system, including the National Statistical Office, the Central Bank and other line ministries and specialized agencies. In this case, it is often common that statistics for some activities/sectors are collected concurrently by two agencies in the system, which raises the issue of coordination and overlapping of statistical projects between these various bodies.

8. In some other countries (e.g., Seychelles and Sierra Leone) the compilation of most of the detailed sectoral statistics are under the responsibility of line ministries and the Central Bank. The National Statistical Office is having much of a role of coordinating, complementing and harmonizing the various fragmented data produced, and making them readily available to the users in standard format. For some particular activities however, the statistical office may conduct its own inquiries. Finally, in a few countries, like South Africa and Malawi, nearly the whole economic statistics programme is undertaken by the National Statistical Office through its statistical surveys and/or censuses programmes.

4. Economic census

9. Practices regarding the organization of economic censuses vary among countries and show a lack of unified approach. Two main approaches of organizing an economic census are followed by African countries: (i) economic census conducted at an economy-wide level; and (ii) economic census conducted for individual sectors or activities (e.g. agriculture, manufacturing, distributive trade, etc.). In both approaches the census programmes aim at complete enumerations of economic units, however, due to their significant financial and human resources intensity, the economy-wide censuses are less preferred.

10. The survey results revealed that economic census represents an important activity in the African countries statistical programmes. About 81 percent of the countries which responded to the questionnaire (see Table 2) indicated that they have conducted an economic census for at least one of the activities listed in the questionnaire. For some countries, this experience is relatively new as their first economic censuses were conducted in the period 2006-2007. It is worth noting also that 70 percent of countries indicated that they plan to conduct an economic census in the next few years. Some of these countries further indicated that they would need assistance in the conduct of future economic censuses. Others tied the conduct of an economic census with the availability of financial resources or the need to establish a business register. The next round of censuses in most countries has been planned for the period 2008-2009.

Table 2: Country practices with respect to the conduct of economic census

| | <i>Number of countries that responded to the questionnaire</i> | <i>Number of countries conducting economic census</i> | <i>Percentage of countries conducting Economic Census (%)</i> | <i>Number of countries with plans to conduct Economic Census</i> | <i>Percentage of countries planning to conduct Economic Census (%)</i> |
|-----------------------|--|---|---|--|--|
| | (1) | (2) | (3) | (4) | (5) |
| African Region | 27 | 22 | 81 | 19 | 70 |

11. International statistical standards recommend economic censuses to be conducted at regular intervals of time (5 years) in order to establish sound benchmarks of basic economic statistics. In fact, 65 percent of African countries (see Table 3) comply with this recommendation and indicated that they carry (or plan to carry) them in the future on a 5 year-frequency basis. This is an important finding highlighting that efforts are being

made by countries to ensure the availability of a broad set of economic statistics. Decennial censuses and censuses conducted on a less frequent basis have been also observed for countries like Cameroon, Ghana, Kenya, Morocco, Mozambique and Nigeria. As such practices are associated with serious limitations in the usefulness of census information and in its adequacy, countries are encouraged to undertake measures for improving the frequency of their economic censuses.

Table 3: Country practices with respect to the periodicity and coverage of economic census

(Percent)

| <i>Countries conducting economic census</i> | <i>Countries having plans to conduct economic census</i> | Periodicity | | | <i>Units of informal sector included</i> | Coverage | | |
|---|--|-------------------------|------------------------|------------------------|--|--|---------------------------|----|
| | | <i>Every five years</i> | <i>Every ten years</i> | <i>Less frequently</i> | | <i>Administrative data used to supplement direct enumeration</i> | <i>Thresholds applied</i> | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | |
| African Region | 81 | 70 | 65 | 25 | 10 | 70 | 35 | 23 |

12. In most of the countries conducting economic censuses, all entities recognized as statistical units are covered by the census programme, irrespective of their size, form of economic and legal organization and ownership. Moreover, the economic census proved to be an important tool for collecting information on informal sector units for 70 percent of these countries. For the sake of reducing the response burden and taking into account the problems related to the coverage and surveying of small units, 23 percent of countries reported that they apply thresholds in respect of units covered by the census. The thresholds are mainly in terms of the number of employees (Kenya, Mauritius, Namibia, Nigeria, Tunisia, Uganda) and/or turnover (Nigeria and Tunisia). The units below the threshold are mainly covered using administrative data sources. Administrative data are also used to supplement the direct enumeration in 35 percent of the countries. Agricultural units in general are observed through separate agricultural censuses.

5. Economic surveys of the formal sector: survey frames

13. Economic surveys remain the most commonly used tool for the collection and compilation of basic economic statistics of the formal sector in the African region. In fact, all countries indicated conducting economic surveys at the enterprise and/or establishment level. Countries surveying the enterprise as the main statistical unit of

economic surveys prevail over those using establishment as such a unit by 16 percent (see Table 4). However, it is worth noting that in the majority of the cases the establishment and the enterprise would be the same and all necessary data for the compilation of basic economic statistics could be obtained from both levels. The enterprise and the establishment would differ only if the establishment is part of a multi-establishment enterprise and countries then will need to implement profiling techniques to achieve maximum possible homogeneity and detailed geographical distribution of economic statistics data.

14. Countries like Egypt, Ghana, Malawi and Sierra Leone indicated that in addition to the enterprise/establishment levels, some of their surveys are conducted at the legal unit level. Others, like Mali, Namibia and Tunisia, used also the local unit. The latter group of countries did not indicate further for what type of statistics the local units had been used, but it should be mentioned that those units are appropriate for compiling particular types of data only where no breakdown by activity is required. The use of local units for the purposes of economic statistics could be enhanced if the criterion kind-of-activity is attributed to them so the units became establishments.

15. For most African countries, the survey frames used in economic surveys for formal sector units are list-based (see Table 4), derived mainly from statistical business register (69 percent); administrative registers (56 percent); the latest census list (36 percent); and ad hoc lists composed from various sources (16 percent).⁷ In total, 96 percent of countries indicated using list-based frames, while the remaining relatively small number of countries - 4 percent, indicated using area-based frames in the surveys for some of the economic activities. More than half of the countries using area-based frames pointed out that they were used predominantly for the conduct of surveys for activities in section A – Agriculture, hunting and forestry.

16. Availability of a comprehensive and up-to-date statistical business register is generally considered as an indispensable requirement to ensure country capacity to implement an integrated approach to compilation of economic statistics. Business register is essential for providing the necessary tools for identifying and constructing statistical units, preparing sampling frames for the conduct of economic surveys, and for providing statistical information on its own right. The survey study revealed that 18 out of 26 countries (69 percent) have established and maintained a statistical business register for the conduct of their economic surveys and censuses. Moreover, two thirds of those countries that do not maintain a statistical business register planned to establish one in the near future.

⁷ The countries had a multiple choice; therefore the results did not add up to 100 percent.

Table 4: Country practices with respect to economic surveys of the formal sector: Survey Frames

(Percent)

| | <i>Statistical units</i> | | <i>Area-based Frames</i> | <i>List-based Frames</i> | | | |
|-----------------------|--------------------------|----------------------|--------------------------|-------------------------------|---|--|--------------------------------------|
| | <i>Enterprise</i> | <i>Establishment</i> | | <i>The latest Census list</i> | <i>Ad hoc list from various sources</i> | <i>Administrative Business Registers</i> | <i>Statistical Business Register</i> |
| | (1) | (2) | | (3) | (4) | (5) | (6) |
| African Region | 58 | 42 | 4 | 36 | 16 | 56 | 69 |

6. Economic surveys of the formal sector: coverage and periodicity

17. In order to ensure a complete coverage of all activities in their economies, the African countries indicated using a combination of surveys with different periodicity and coverage, commensurate with their specific statistical and organizational circumstances. Two out of every three African countries (including leading countries like Cameroon, Egypt, Kenya, Nigeria, South Africa, etc.) conduct economic surveys of formal sector units that cover all ISIC sections listed in the questionnaire. For the remaining one third of countries, surveys were conducted only for a subset of listed activities.

18. The survey study also confirmed that comprehensive enumeration of formal units is not always necessary for obtaining data about total population in a particular economic activity. 58 percent of countries applied thresholds (see Table 5) in their surveys with respect to unit's inclusion in the sample. In nearly three quarters of the cases information about units below the cut-off point is ensured through administrative data sources.

19. Variety of practices was observed regarding the periodicity of conducted economic surveys. The fact that all African countries indicated having annual surveys for the most important economic activities is a good sign that the region has embarked on a more sustainable platform for production of timely economic statistics. Good progress was also made in the area of short-term statistics – as of 2008, 58 percent of countries conduct quarterly and 19 percent conduct monthly surveys. Only two countries - South Africa and Tunisia – indicated the establishment of an integrated system of surveys with different periodicities.

Table 5: Country practices with respect to economic surveys of the formal sector: Coverage and Periodicity

(Percent)

| | <i>Periodicity</i> | | | | <i>Coverage</i> | |
|-----------------------|--------------------|---------------|------------------|----------------|---------------------------|--|
| | <i>Infrequent</i> | <i>Annual</i> | <i>Quarterly</i> | <i>Monthly</i> | <i>Thresholds applied</i> | <i>Use of administrative data for units below the thresholds</i> |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| African Region | 23 | 100 | 58 | 19 | 58 | 73 |

20. Methods used by African countries for collecting replies to economic surveys show a broad uniformity. The mail dispatch with subsequent follow-up visits is the most commonly used data collection approach. For a few countries like South Africa and Senegal, the telephone is also used as an additional tool for data collection and verification of replies. Only Kenya indicated the use of e-mail in support of the telephone inquiries.

7. Data contents of economic surveys

21. Financial variables, reflecting income and expenditures, and some balance sheet positions of units and details about their output (i.e. goods and services produced) in terms of Central Product Classification (CPC)⁸ are the two main categories of data items that are necessary for the compilation of sound basic economic statistics. These categories emerged as being the most commonly included in the annual economic surveys of formal sector units in African countries (see Table 6). 81 percent of countries that responded collect this information, as in nearly three quarters of the cases those data items are included in their annual surveys which allow African countries to compile value added by economic activities. The annual surveys proved to be also the source for the second category, i.e. the full output details in terms of CPC compatible product classification. Small percentage of African countries (including Kenya and Morocco) implement product classifications that are not compatible with CPC; yet, their annual or quarterly surveys provide the necessary product details for compilation of economic statistics by commodities. The survey study also revealed that 12 percent of African countries (including Algeria, Kenya and Mali) collect only a few key variables for the compilation of their short-term economic statistics.

⁸ Central Product Classification (CPC), United Nations publication, Sales No. E.03.XVII.3.

Table 6: Country practices with respect to economic surveys of the formal sector: Data contents of economic surveys

(Percent)

| | <i>African Region</i> | <i>Of which:</i> | | | |
|--|-----------------------|---------------------------|-----------------------|--------------------------|------------------------|
| | | <i>Infrequent Surveys</i> | <i>Annual Surveys</i> | <i>Quarterly Surveys</i> | <i>Monthly Surveys</i> |
| | (1) | (2) | (3) | (4) | (5) |
| A set of financial variables reflecting income, expenditure and balance sheet position which allows for derivation of value added | 81 | 25 | 71 | 4 | - |
| Full output (produced goods and services) details in terms of CPC compatible product classification | 65 | 23 | 67 | 5 | 5 |
| Full output (produced goods and services) details in terms of national product classification which is NOT compatible with CPC | 4 | - | 100 | - | - |
| A limited set of financial variables reflecting selected income, expenditure and balance sheet positions | 19 | - | - | 100 | - |
| Selected output (produced goods and services) details in terms of CPC compatible product classification | 23 | - | 17 | 67 | 16 |
| Selected output (produced goods and services) details in terms of national product classification which is NOT compatible with CPC | 4 | - | - | 100 | - |
| Only few key variables (e.g., reflecting output or revenue) | 12 | - | - | 33 | 67 |

8. Informal sector

22. The operational definitions of the informal sector implemented by African countries vary as they largely depend on national considerations and circumstances, more particularly, the structures of the micro and small enterprises, national legislation covering registration of enterprises and labor laws. However, in the majority of the cases these definitions broadly comply with the definition of the informal sector adopted by the International Conference of Labor Statisticians (ICLS)⁹. According to this definition the informal sector can be characterized as consisting of units engaged in the production of goods and services with the primary objective of generating employment and incomes for the persons concerned and that operate within the production boundary of the system of

⁹ Resolution concerning statistics of employment in the informal sector, adopted by the Fifteenth International Conference of Labor Statisticians (January 1993).

national accounts. Informal sector enterprises are a subset of household unincorporated enterprises. Their main characteristics include among others, absence of legal ownership – i.e. household enterprises do not constitute separate legal entities independently of the household members who own them, low level of organization, with little or no division between labor and capital as factors of production, operation on a small scale, and lack of a complete set of accounts for the households productive activities. Many African countries further restrict their scope by implementing two additional criteria – size and non-registration of the enterprise and/or its employees.

23. Typically, the informal sector may encompass all kinds of economic activities of household unincorporated enterprises with at least some production for sale or barter. A large number of the activities of informal sector enterprises in Africa are carried out without a fixed location, in homes, small shops or workshops. Informal activities range, for example, from street vending, shoe shining and other activities that require little or no capital and skills to activities that involve a certain amount of investment or level of skills such as tailoring and car repair. As such, many informal sector enterprises are operated by an individual working either alone, as self-employed entrepreneur, or with the help of unpaid family members, although other informal micro-entrepreneurs may engage paid workers.

24. African countries use different approaches to measuring activities undertaken in the informal sector of their economies. Table 6 below provides some of the most commonly used approaches for collecting data on production in units in the informal sector and respective share of African countries implementing them. The choice of the appropriate method for measuring the informal sector depends upon the organization of statistical systems and the resources available, how adequately data collection methods for covering these activities have been established and what information is missing from existing collections.

25. Two out of every three African countries (including leading countries like Egypt, Morocco, Nigeria, Tunisia, etc.) conduct informal sector enterprise surveys. It should be noted that production units without a fixed location or with unrecognizable business premises are easily omitted in informal sector enterprise surveys. In addition, double counting of household production may occur if the collections for different types of economic activity are undertaken at different times rather than simultaneously in an integrated manner.

26. A mixed household-enterprise survey is generally used by 57 percent of African countries (including Cameroon, Gabon, Kenya, Mali, Niger, Uganda, etc.). It is designed with enterprise modules attached to existing labor force or other household surveys. Such a survey could cover all household entrepreneurs of the sampled households including informal entrepreneurs (including units operating without fixed premises such as mobile units) and their activities, irrespective of the size of the enterprises, the kind of activity and the type of workplace used and of whether the activities are undertaken as main or secondary jobs.

27. 40 percent of African countries indicated that they use labor force surveys to collect data about activities of informal sector units. A labor force survey (or household survey) may provide a means to collect information on production by household enterprises that are not included in the sampling frames used for enterprise (or establishment) surveys. It may also be possible to collect data on informal sector employment in them.

28. Irrespective of the approach used for measuring the activities of the informal sector units, the survey study revealed that data about the total revenues of those units are collected by 80 percent of African countries (see Table 8), while 70 percent of them also collect expenditures information and 15 percent – data about gross fixed capital formation. Half of the African countries indicated that they gather information about the informal sector employment.

Table 7: Country practices with respect to the informal sector: *Types of Surveys*

(Percent)

| | <i>Informal sector enterprise surveys</i> | <i>Mixed household-enterprise surveys</i> | <i>Household income and expenditure surveys</i> | <i>Labor Force Surveys</i> | <i>Economic module of population census</i> | <i>Other</i> |
|-----------------------|---|---|---|----------------------------|---|--------------|
| | (1) | (2) | (3) | (4) | (5) | (7) |
| African Region | 65 | 57 | 48 | 40 | 12 | 5 |

Table 8: Country practices with respect to the informal sector: *Data Contents*

(Percent)

| | <i>Total Revenues</i> | <i>Some details on goods and services produced</i> | <i>Total Expenditures</i> | <i>Some expenditure details</i> | <i>Total Employment</i> | <i>Gross capital formation</i> | <i>Other</i> |
|-----------------------|-----------------------|--|---------------------------|---------------------------------|-------------------------|--------------------------------|--------------|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| African Region | 80 | 60 | 70 | 30 | 50 | 15 | 5 |

9. Supplementary topics

29. Production of basic economic statistics by countries, including African countries, is a complex process comprising many stages starting from the collection and processing of data to compilation and dissemination of final results. The survey study highlighted that the region is progressively becoming more sensitive to the various aspects of data dissemination and more particularly to the quality of disseminated information, as well as to the necessity of producing metadata and establishing close contacts with respondents and users of economic statistics.

30. A very positive indication for the progress of African countries in this area is the fact that 90 percent of those that responded disseminate regularly economic statistics data and 62 percent disseminate them together with corresponding metadata. 40 percent of African countries promote also a shared concern for the quality of economic statistics at all stages of its compilation as they prepare and make available to users quality reports. Considerations to conducting user satisfaction surveys were given by only a few countries like Kenya and Uganda. Kenya has conducted such surveys in the past while Uganda planned to conduct its first user satisfaction survey in 2008

31. Another essential part of country practices in respect of compilation of economic statistics are revisions as well as the study of their directions and magnitude. Nearly half of the countries have developed a revision policy and follow closely the revisions between the old and new economic statistics data series.

Table 9: Country practices with respect to data quality and dissemination

(Percent)

| | <i>Dissemination of statistical data on a regular basis</i> | <i>Dissemination of metadata</i> | <i>Preparation and dissemination of quality reports</i> | <i>Availability of revision policy</i> | <i>Conduct of user satisfaction surveys</i> |
|-----------------------|---|----------------------------------|---|--|---|
| | (1) | (3) | (4) | (5) | (6) |
| African Region | 90 | 62 | 40 | 45 | 15 |

32. In this concluding part of the questionnaire all respondents indicated the challenges and/or underlying factors that impede the compilation of basic economic statistics in their countries. They may be grouped into the following main categories: (i) *Statistical Business Register* - lack of resources for establishing and updating a statistical business register; (ii) *Staff resources* - inadequate number of staff, staff motivation and training; (iii) *Data sources* - lack of resources for conducting economic surveys and

censuses on a regular basis and poor response rates to statistical surveys, reflecting on the quality and reliability of produces statistics; and (iv) *Information technology* - poor information and communication technology infrastructure. In this connection, almost all countries stressed out the need for technical, technological and financial assistance (capacity building).

II. Experiences of selected African countries

1. This chapter presents in a structured manner the practices of selected African countries in collection, compilation and dissemination of basic economic statistics. The content of the chapter is based primarily on the information provided in the “Country Note” questionnaire of the UNSD survey study (see annex 4) and on the country reports presented at the First Regional Workshop for African Countries on Compilation of Basic Economic Statistics, held in Pretoria, South Africa from 23 to 26 July 2007. Additional methodological documents provided by countries as well as information collected from the national statistical offices official websites during 2008 and 2009 has also been used to supplement the one submitted directly to UNSD.

2. The presentation for each country follows closely the structure of the survey questionnaire in terms of the sections and their sequencing. The practice of only those countries that replied is presented as countries are ordered alphabetically. In some cases the length of the explanations from one country to another varies depending on the nature of submitted documents. In general, the information is scarce for those countries that replied only to the survey questionnaire. Replies of Francophone African countries, originally provided in French, were translated into English for the purpose of this Handbook.

Algeria

1. General information

3. The 1994 Legislative Decree defined the rights and responsibilities of the Algerian National Statistical Office (Office National de la Statistique (ONS)) within the national statistical system which comprises of: the National Statistical Council; the Central Institution of Statistics; the Statistical Services of Administrations and Territorial Collectivities; and the specialized public/private agencies including the polls institutes.

4. The ONS, a public national institution with central units and regional structures, is the central institution for the production and dissemination of official statistics in the country. The work in the area of economic statistics is undertaken by the Business Statistics Division which is one of the six Divisions of ONS.

5. The areas of ONS responsibilities range from the participation in the development of the annual report on the execution of the national plan and other statistical projects and programmes of work, supervision of work on the technical organization, conduct, implementation, and analysis of statistical surveys and censuses, as well as the establishment of files and databases that it maintains and manages.

6. The mission of the office is also to promote the national statistical system by looking after the rules and general methods of elaboration, revision and updating of

codes, classifications and statistical concepts, and to ensure that relevant, regular and timely statistical information is available and disseminated to meet the demands of social and economic units. The office also implements any statistical work requested by the Government or other government institutions within the scope of its mission. Within the framework of the implementation of statistical tools and procedures, it maintains an up to date register of socio-economic units by attributing to each of them a unique statistical identification number.

7. The ONS is headed by a Director General assisted by several directors. The Division of Business Statistics and Assessment of the Economic Situation is one of the six technical Divisions of ONS, responsible for the collection, compilation and analysis of statistical information with respect to the production of goods and services. The Division conducts the appropriate statistical surveys as part of the ONS economic statistics programme and contributes to the development of statistical methods and standards related to its own and activities of other divisions in ONS, namely it participates in: (i) compilation of National Accounts; (ii) compilation of indices of production, costs and prices of goods and services; (iii) monitoring and analysis of economic situation by using indicators obtained from statistical surveys and administrative data sources; and (iv) preparation of the ONS publications.

2. Institutional arrangements

8. The ONS economic statistics programme covers 12 out of 14 ISIC economic sections listed in the questionnaire (all but sections O - Other community, social and personal service activities, and K - Real estate, renting and business activities). For five of these sections namely, sections C - Mining and quarrying, D - Manufacturing, E - Electricity, gas and water supply, H - Hotels and restaurants, and I - Transport, storage and communications, besides the ONS, there are other line ministries or specialized agencies that concurrently carried out economic statistics programmes. The Central Bank is entirely responsible for the data of activity J - Financial intermediation. Statistics about activities in sections A - Agriculture, hunting, forestry, B - Fishing, F - Construction, G - Wholesale and retail trade, M - Education and N - Health and social work are also covered only by a line ministry or a specialized agency.

3. Economic Census

9. Algeria does not have a program on economic census at present. There are however, plans to conduct an economy wide economic census in 2009 with the exception of agricultural activities.

4. Economic surveys of the formal sector: survey frames

10. Survey frames used in surveys of the formal sector are *list based* and derived from a statistical business register. Economic surveys are mainly conducted at the *enterprise* level. In some cases, both the *enterprise* and *local unit* levels are surveyed.

5. Economic surveys of the formal sector: coverage and periodicity

11. Activities covered by the current economic surveys programme for formal sector are mainly those of sections C - Mining and quarrying, D - Manufacturing, E - Electricity, gas and water supply; G - Wholesale and retail trade, H - Hotels and restaurants and I - Transport, storage and communications. Industrial surveys (surveys for sections C, D and E) are conducted on annual and quarterly basis, while services surveys (surveys for sections G, H and I) on annual basis only. No threshold is applied in conducted surveys and no administrative data is used to supplement the direct enumeration. The main data collection method for conducting surveys is *mail dispatch* with follow-ups by *visits*.

6. Data contents of economic surveys

12. The ONS annual economic surveys collect a full set of financial variables reflecting income, expenditure and balance sheet position of formal sector units, which allows for derivation of value added by activity. Annual surveys provide also the full output details in terms of CPC compatible product classification. Only a few key variables reflecting output or revenue are collected by the quarterly economic surveys.

7. Informal sector

13. There is no current programme for the compilation of economic statistics for the informal sector. However, for the sake of ensuring the exhaustiveness of national accounts, procedures are developed by the National Accounts section to integrate the activities of the non-observed economy (i.e. the illegal, underground and informal activities).

8. Supplementary topics

14. Economic statistics data disseminated by ONS to the general public have fixed release dates. Whenever possible, metadata and quality reports are disseminated along with the published statistics. Revision policy document is not yet disseminated, neither a user satisfaction survey is conducted.

15. The ONS is responsible for the dissemination and promotion of the statistical information which are undertaken through a series of diverse publications including the Algeria Statistical Yearbook, Algeria in a few numbers, Economic Situation Report, Periodic publications such as journals, bulletins, etc., and Statistical series (retrospective papers).

Angola

1. General information

16. The Statistical Law No. 15/96 of 27 September 1996 defines the rights and responsibilities of the national statistical office for collection, compilation, analysis, dissemination and coordination of all official statistics.

17. The work in the area of economic statistics is undertaken by the Financial Economics Statistics Department which has five divisions: Services Statistics Division; Industry Statistics Division; External Trade Division; Financial Statistics Division and Agriculture Division (the last 2 divisions are not operational yet).

2. Institutional arrangements

18. The economic statistics data compilation programme covers only ten of the ISIC economic sections listed in the questionnaire, namely: B - Fishing, C - Mining and quarrying, D - Manufacturing, E - Electricity, gas and water supply, G - Wholesale and retail trade, H - Hotels and restaurants, I - Transport, storage and communication, M - Education, N - Health and social work, and J - Financial intermediation. Statistics about the activities of the last section J are primarily conducted by the Central Bank.

3. Economic Census

19. Angola does not have a programme on economic census at present, however, there are plans to conduct one in the future.

4. Economic surveys of the formal sector: survey frames

20. The most recent Industrial Production Index survey, conducted from May to August 2007 and covering activities in sections B - Fishing, D - Manufacturing and E - Electricity, gas and water supply of ISIC, used a *list-based* survey frame. The survey frame was derived from three sources - the latest census list, administrative business registers and a statistical business register.

5. Economic surveys of the formal sector: coverage and periodicity

21. The survey programme for the formal sector is centered on two main surveys conducted on an annual basis: (i) the survey for Industrial Production Index (see para. 21); and (ii) the Annual Harmonization Survey of Enterprises, which covers all activities in the economic statistics programme of the national statistical office.

22. Economic surveys of the formal sector are conducted at the *establishment* level. Thresholds with respect to units' inclusion are applied in these surveys, as the administrative data is used to supplement the direct enumeration below the thresholds. *Visits* are the main data collection methods used in conducted surveys.

6. Data contents of economic surveys

23. No information is provided.

7. Informal sector

24. There is no current programme for the compilation of economic statistics for the informal sector.

8. Supplementary topics

25. No information is provided.

Botswana

1. General information

26. The Botswana Central Statistics Office (CSO) is a government department within the Ministry of Finance and Development Planning. Its primary function is to provide government ministries and departments, non-governmental organizations, regional and international organizations and members of the public in general with statistical information. It operates within the legal framework of the Statistical Act of The Laws of Botswana, which in broad but explicit terms, outlines the duties of the department. The Act was constituted in 1967.

27. The department is functionally divided into three major divisions, namely, Census and Surveys, Economic and Social Statistics. The divisions are made up of statistical units, some of which are seconded to and housed in user ministries.

28. The Economic Statistics division is responsible for the collection, compilation, analysis and dissemination of economic statistics, namely national accounts, industrial, trade, prices, transport, labour and environment statistics. To make this responsibility manageable, the division is further divided into three sub-divisions. The first division is made up of National Accounts, Labour and Industrial statistics units. The second division comprises Prices and Trade Statistics units; while the third is composed of Transport and Environment Statistics units.

29. Presently, there are many users of economic statistics in Botswana. Some of which are government ministries and departments, civil society, researchers, business community, students, politicians, regional and international organizations and the general public. The CSO has established a formal relationship with its data users through User/Producer Committees. The committees are meant to maintain a continuous dialogue between CSO and data users in order to define a programme of operations, guide and advice the CSO on issues relating to data requirements. In addition to these committees, a National Statistical Advisory Council with membership from both the public and private sector has been formed to advise the CSO on statistical matters.

2. Institutional arrangements

30. One other avenue for an effective relationship between the CSO and users of statistics is the semi-centralized nature of the CSO, where units are physically seconded to user ministries. These units are in daily contact with the major user and serve in various planning committees of those ministries. While this type of arrangement has its disadvantages, primarily from a professional stand point, it has been welcomed by user ministries as a very effective link between the CSO and users.

3. Economic Census

31. Before the current economic census which is currently in the data collection stage, the CSO has never before conducted an economic census for the purpose of compiling economic statistics. The population and housing census which is conducted every ten years, the last one having been conducted in 2001, has been used as a source of benchmark data for mainly labour (employment) statistics and now environment statistics.

32. The CSO is for the first time conducting an economic census. The census covers the period 2006/7. Its objective is to collect economic data from all formal economic entities classified in ISIC sections A, B and C for the purpose of:

- (a) Determining the structure of the economy through the existing establishments and enterprises;
- (b) Collecting benchmark data for economic statistics;
- (c) Updating the Enterprises and Establishments Register as well as to add more variables to the database.

33. In addition to general information about establishments and enterprises, the census is collecting data on operating characteristics, employment characteristics, revenue, expenditure, financial and investment details.

4-5-6. Economic surveys of the formal sector: survey frames; coverage and periodicity; data contents

34. In compiling economic statistics, the CSO uses data collected mainly through economic surveys and administrative records. In terms of economic surveys, the CSO undertakes monthly, quarterly and annual surveys to collect data used in the compilation of the different economic statistics it produces. The collection program for most market activities consists of:

- (a) Monthly Price Surveys – collect price data for the different chosen consumer items from the sampled outlets for the purpose of compiling the Consumer Price Index.

(b) Quarterly surveys

- *Survey of Recent Trends* – collects revenue/income/sales, inventories, quantity and value of production of main commodities. It covers large establishments in major economic activities except those in agriculture, water and electricity. It is the main source for the compilation of quarterly Gross Domestic Product;
- *Survey of Industrial Production* – collects quantities and values of manufactured commodities data for the purpose of compiling Industrial Production Index.

(d) Bi-Annual Surveys

- *Survey of Employment and Employees* – collects data on employees of establishments. It is confined to the formal sector and is the main source for labour statistics.

(e) Annual Surveys

- *Annual Economic Survey* – collects comprehensive revenue, expenditure, inventories, fixed assets and financial assets and liabilities data from sampled formal establishments and enterprises within ISIC A, B and C for the compilation of national accounts statistics;
- *Census of Manufacturing and Construction* - collects comprehensive revenue, expenditure, inventories, fixed assets and financial assets and liabilities data from sampled formal establishments and enterprises in manufacturing, construction, mining, water and electricity for the compilation of national accounts statistics.

35. The CSO also compliments data collected through regular economic surveys with data from ad-hoc surveys. The ad-hoc surveys are:

- (a) *Household Income and Expenditure Survey* – conducted every 10 years after the population and housing census. The aim of conducting a household income and expenditure survey is to provide an up-to-date data on income distribution and consumptions patterns of households. The last one was conducted in 2002/3 and the plan is to have a mini-survey in 5 years time;
- (b) *Labour Force Survey* - conducted every 10 years, the last one was for 2005/06. The objective of the survey is to obtain comprehensive data on the status of the labour market prevailing in Botswana.

Data compilation methods

36. As much as there are different types of economic statistics, there are different methods of compiling them. For all the economic statistics, the different surveys are designed to have fully enumerated and sampled strata. Establishments employing less than 50 employees are extracted from the Enterprises and Establishment Register by strata and stratified according to the ISIC division. A systematic random sample is then drawn from each ISIC division depending on the number of establishments in that particular ISIC division.

37. In terms of estimation procedure, for the fully enumerated strata every attempt is made to achieve complete response. For the few fully enumerated establishments, which do not respond, imputation is made on the basis of the previous returns or other information. No grossing up or ratio raising is done to allow for non-response.

38. For the sampled stratum, a simple expansion factor¹⁰ is applied to the total establishment data in each ISIC separately. This procedure is not uniformly applied. After preliminary estimates are made, a careful examination is carried on the individual units and the expansion factors. In some cases, the following adjustment is made: if an establishment with very high employment has responded in the less than 50 employee's stratum, it is transferred to the fully enumerated strata and no expansion factor is applied.

Use of Administrative Data Sources

39. The CSO uses administrative data sources for compiling External Trade, Transport and Environment statistics. Customs and Excise operations documents are used as the source for External Trade statistics.

40. *Transport and Communication Statistics* are derived from several administrative records. Statistics on civil aviation and vehicle registrations are from records kept by the Department of Civil Aviation and Department of Road Transport and Road Safety respectively. Motor vehicle accident statistics are obtained from the Botswana Police records. Traffic counts and road network statistics are obtained from the Roads Department and Local Authorities records. Data on railways and postal services are derived from Botswana railways and Botswana postal Services respectively.

Use of Statistical Business Register

41. The CSO maintains the Enterprises and Establishments Register (EER) used to select the enterprises and establishments that are surveyed for economic data. The EER was originally populated using information provided by a number of bodies, including the Registrar of Companies, the Registrar of Societies and Local Authorities. Updating of the EER is done continuously using records from government ministries and departments.

¹⁰ The expansion factor is the number of establishments in the EER for that ISIC strata divided by the number of effective respondents for the stratum. The effective response includes respondents who advise CSO that they have no data or are dormant as well as those with valid data details.

42. The CSO also dispatches a business review form to newly registered enterprises to further update the EER. This would appear to be a comprehensive procedure for recording all formal businesses when they are set up. Unfortunately, the register contains a number of dormant enterprises, those that have ceased to exist, or that have registered but not commenced operations. Returned mail (to detect closed businesses) and newspaper advertisements (to detect new enterprises) are monitored. The other CSO collection systems also report any new or ceased businesses that they identify.

43. The EER covers approximately 60,000 establishments and contains information on the company's name, location, telephone number, date of registration, type of activity, and employment size. Clearly, unregistered companies are not included in the EER, which is a particular problem for the construction sector. The CSO is currently undertaking a full census of all businesses operating in Botswana using enumerators to list and enumerate all active businesses in the country. This exercise will be used to derive the details required for the EER.

7. Informal sector

44. Informal sector units are not normally covered in the regular economic surveys. The CSO undertook the first informal sector survey in 1999 to answer a number of key policy issues on the existence of informal sector in Botswana. The objective was to collect data that would provide information required to shed light on the contribution of the informal sector to the economy, types of major activities, proportion of workforce employed, proportion of household income generated by the sector, size of capital investment in the sector and the extent of the informal sector's contribution to the competitive market in the economy. The second survey of this nature is currently ongoing covering the period 2007.

8. Supplementary topics

Data Dissemination

45. Economic Statistics produced by the Botswana CSO is disseminated through various channels. To meet user's needs the CSO has subscribed to the General Data Dissemination Standards.

46. Most of the statistical outputs are disseminated through regular (monthly, quarterly and annual) publications which are sold at subsidized prices to users. Dissemination is also done through workshops and media (newspapers, radio, television, and website).

Problems and difficulties encountered

47. The CSO has several constraints and challenges in the collection and compilation of economic statistics, most important of which are: (i) Low response for economic

surveys; (ii) Lack of coordinative machinery for administrative data; (iii) Lack of central depository stations for administrative data; and (iv) Lack of skilled manpower in various fields of economic statistics.

Cameroon

1. General information

48. The Statistical Law No. 91/023 of 16 December 1991 on the statistical surveys and censuses defines the legal framework for the production and dissemination of official statistics in Cameroon. The Law covers the issues of confidentiality and the citizens' obligation to respond to the surveys questionnaires. Its article 5 stipulates that "The individual economic and financial information of any statistical surveys questionnaires cannot be used for control or economic repression purposes." The Law reassures the owners of the enterprises that the information they provided to the interviewers about their activities or products will be kept confidential, which facilitates the data collection.

49. The Decree No. 93/407/PM of 7 May 1993 lays down the modalities of implementation of the 1991 Statistical Law. It refers also to the creation of the National Statistical Council which is a governmental consultative board consisting of government representatives, members of the Parliament, academia, and the private sector. The Decree also establishes the authorization/validation of statistical activities.

50. The Presidential Decree 2001/100 of 20 April 2001 refers to the creation and operation of the Cameroon National Statistical Office (Institut National de la Statistique (INS)). For technical matters the INS is under the supervision of the Ministry of Planning, while for financial matters – under the supervision of the Ministry of Economy and Finances. INS is responsible for the coordination and operation of the National System of Statistical Information (NSSI) which regroups the structures and bodies involved in the compilation, dissemination, and use of the statistical information. The NSSI is a decentralized body consisting of the INS, regional statistical services and sectoral administrations.

51. The INS mission includes: (i) coordination of the NSSI activities; (ii) production of data and statistical indicators necessary for socio-economic management; (iii) establishment and maintenance of data files of surveys and censuses conducted by public administrations and other institutions, subsidized or controlled by the State; and (iv) development of statistical science and economic research within INS competence area, as well as promotion of training for professional staff of the NSSI

2. Institutional arrangements

52. The economic statistics data compilation programme covers all 14 ISIC sections listed in the questionnaire. Economic statistics with respect to the following five sections are compiled by the respective line ministries or specialized agencies - A - Agriculture,

hunting and forestry, B - Fishing, M - Education, N - Health and social work and O - Other community, social and personal service activities, while INS is responsible for compilation of economic statistics data for the remaining nine sections.

3. Economic Census

53. The last economic census was conducted in 1983. It covered all activities under the responsibilities of the INS (ISIC sections C to K). For activities in sections M - Education and N - Health and social work, the latest economic census was conducted in 2005. An agricultural census has not been held since 1983/1984. No threshold was applied in the conducted economic censuses, as they did not cover units of the informal sector either. A new economic census was planned for 2008. It is expected to cover activities in section A, and sections C to K.

4. Economic surveys of the formal sector: survey frames

54. The survey frames used for the conducted economic surveys of formal sector are *list-based*, derived mainly from the administrative business registers, such as the statistical and fiscal declarations, business accounting records, etc. A statistical business register does not exist yet in Cameroon, however there are plans to establish one in the future.

55. Economic surveys of the formal sector are conducted mainly at the *enterprise* level. *Enterprise group* is used as a statistical unit in addition to the enterprise for activities in sections G - Wholesale and retail trade, H - Hotels and restaurants, J - Financial intermediation, and K - Real estate, renting.

5. Economic surveys of the formal sector: coverage and periodicity

56. Economic surveys of the formal sector are conducted on an annual basis. No threshold is applied. *Mail dispatch* and follow up *visits* are the main data collection methods used.

6. Data contents of economic surveys

57. The INS annual economic surveys collect a full set of financial variables reflecting income, expenditure and balance sheet position of formal sector units, which allows for calculation of value added by activity. Annual surveys provide also the full output details in terms of CPC compatible product classification.

7. Informal sector

58. Mixed household-enterprise surveys are used as a tool for collecting data about informal sector units. These surveys are based on the 1-2 survey¹¹ of employment in the

¹¹ 1-2-3 approach is implemented by many African countries, including all AFRISTAT member countries. See Annex 2 for more details.

informal sector. They are conducted bi-annually as requested data include mainly the total revenues, some details on produced goods and services, total employment, and gross capital formation.

8. Supplementary topics

59. Economic statistics data disseminated by INS to the general public have fixed release dates. Statistical data is disseminated mainly through paper publications, CD Rom, Website, databanks, Media, seminars, etc. INS has access to administrative data through statistical services in the line ministries (e.g. health, education, agriculture, etc.). Metadata and quality reports are not disseminated yet, neither are the revision policy documents prepared and user satisfaction surveys conducted.

Central African Republic

1. General information

60. The Statistical Law No. 01.008 of 16 July 2001 defines the rules and regulations governing the statistical activity. The Law applies to all statistical units and bodies of statistics operating in the country. In its section I the Law guarantees protection of statistical confidentiality; in section II it states the obligation for respondents to respond to the statistical questionnaires and inquiries; and in article 5 it guarantees the scientific independence with which statistical units must carry out their mission, in accordance with the methodological rules, standards and techniques adopted in the area of statistical practice.

61. The national statistical office - Direction Générale des Statistiques, des Études Économiques et Sociales (DGSEES) is responsible for conducting economic, demographic and social surveys and studies and for disseminating their results through statistical yearbooks, bulletins and other means for dissemination.

62. DGSEES is a department of the Ministry of Finance. It has four Divisions: the Economic Statistics Division, the National Accounts Division, the Demographic and Social Statistics Division and the Coordination and Development of Regional Statistics Division. The economic statistics work is conducted by the Economic Statistics and the National Accounts Divisions.

2. Institutional arrangements

63. The economic statistics programme covers all 14 ISIC sections listed in the questionnaire. Economic statistics data for sections F - Construction and G - Wholesale and retail trade are compiled only by DGSEES. The statistical office, in collaboration with the Central Bank and a line ministry produces economic statistics for another five sections - D - Manufacturing, H - Hotels and restaurants, J - Financial intermediation, K - Real estate, renting and O - Other community, social and personal services activities. The

respective line ministries alone are responsible for the statistics in the remaining seven sections, namely: A - Agriculture, hunting forestry, B - Fishing, C - Mining and quarrying, E - Electricity, gas and water supply, I - Transport, storage and communications, M - Education, and N - Health and social work,

3. Economic Census

64. No information is provided.

4. Economic surveys of the formal sector: survey frames

65. DGSEES maintains a statistical business register which provides a basis for the frames used in the economic surveys of the formal sector. The register is updated regularly using information from the statistical and administrative data sources (fiscal declarations (SFD) of businesses) and from the feedback of regular economic surveys, specifically business conjuncture surveys. The two main classifications used for the compilation of basic economic statistics are NAEMA classification of economic activities and CPC products classification. NAEMA is the classification used by AFRISTAT member countries and it is compatible with ISIC.

5. Economic surveys of the formal sector: coverage and periodicity

66. Economic surveys of the formal sector are mostly conducted on an annual basis, particularly for activities in sections B - Fishing, D - Manufacturing, E - Electricity, gas and water supply, F - Construction, H - Hotels and restaurants, J - Financial intermediation, M - Education, N - Health and social work, and O - Other community, social and personal services activities. Monthly surveys are conducted for three activities only - in section D - Manufacturing, G - Wholesale and retail trade and I - Transport, storage and communications. For activities in sections A - Agriculture, hunting, forestry, C - Mining and quarrying, and K - Real estate, renting, economic surveys are conducted on an infrequent basis.

67. Thresholds with respect to units inclusion in the sample have been applied in economic surveys for activities in the following sections: B - Fishing, C - Mining and quarrying, J - Financial intermediation, M - Education, N - Health and social work and O - Other community, social and personal services activities. Administrative data is used to supplement the direct enumeration in surveys of activities in sections C - Mining and quarrying, J - Financial intermediation, M - Education, N - Health and social work and O - Other community, social and personal services activities. *Visits* are the main data collection methods used in conducted surveys.

6. Data contents of economic surveys

68. No information is provided.

7. Informal sector

69. The means of statistical observation used to capture the activities of the informal sector units are: (i) Informal sector enterprise surveys; (ii) Mixed household-enterprise surveys; (iii) Households income and expenditure surveys; (iv) Economic module of the census of population; and (v) Specific punctual/area surveys. Units of the informal sector are allocated to various ISIC sections on the basis of their main activity.

70. The following data items about the activities of the informal sector units are collected through the surveys listed in para. 48: total revenues, some details on produced goods and services (inputs, marketing, etc.), some expenditure details (wages and salaries and other labor cost, intermediate consumption, utilities, etc.) and total employment.

8. Supplementary topics

71. DGSEES has a quality review policy for basic economic statistics however, quality reports are not disseminated to the general public. Metadata are disseminated along with published data.

72. The most important factors impeding the compilation of basic economic statistics are related to the lack of adequate human resources, unreliability and lack of timeliness of produced data.

Egypt

1. General information

73. The Statistical Law (Law No. 35) promulgated in 1960 defines the mandate and responsibilities of the Central Agency for Public Mobilization and Statistics (CAPMAS). The Law covers also issues of confidentiality and obligation of respondents to provide data to the official statistical inquiries. An advisory Committee for Planning and Statistical Coordination was established by the Presidential Decree No. 2915 of 1964. It is constituted of members from all ministries and government agencies, as well as the representatives from private and public sectors. The committee holds a meeting once per month, headed by the President of CAPMAS.

74. According to this Presidential Decree, CAPMAS is considered as the official source for providing all state bodies, organizations, universities, research centers and international organizations with statistical data and reports to be used for planning, development and evaluation purposes as well as for the preparation of studies, policy formulation and decision making. With its enormous manpower, outstanding technical experience and hi-tech equipment, CAPMAS is considered as one of the most important agencies of the State in a time when data and information represent the most crucial factors required for meeting any kind of success or development in all fields and activities in Egypt.

75. Administratively, CAPMAS operates under the supervision of the Ministry of Economic Development and its President reports directly to the Minister. CAPMAS has five main sectors: the Statistics Sector, the Public Mobilization Sector, the Information Technology Sector, the General Secretariat Sector, and the Regional Branches Sector.

76. The statistical work is undertaken by the Statistical Sector which is responsible for: (i) preparing statistics related to different economic activities at national level; (ii) preparing indices and data for the sectoral and national accounts; (iii) conducting censuses (population, housing, and economic) at national level and providing, preparing and disseminating the relevant results from them; (iv) providing the statistical data for the government, public and private sectors and taking the necessary procedures for providing the other CAPMAS sectors with the data at the scheduled times; (v) gathering the statistical information from its primary sources; (vi) technical supervision of the central statistics departments in government sector agencies, developing the statistical work at these departments, spreading and developing statistical awareness among the employees at these agencies; (vii) conducting studies and analytical researches in all population-related fields nation widely, studying the components and structure of population communities, their growth rates and related factors, and forecasting their characteristics and structure in the future years; (viii) conducting field demographic research, using sample method; and (ix) training government ministries and agencies employees in CAPMAS.

2. Institutional arrangements

77. The economic statistics programme of Egypt covers all 14 ISIC sections listed in the questionnaire. CAPMAS is the responsible agency for compiling economic statistics for all these sections as in the majority of cases it works concurrently with the respective line ministry or specialized agency. Central Bank of Egypt provides data for section J - Financial intermediation. Economic statistics in sections F - Construction and K - Real estate, renting are covered exclusively by CAPMAS.

78. The economic statistics programme has two main components - the economic censuses; and the current economic statistics which encompasses surveys with different frequency (monthly, quarterly, and annually) for all activities, irrespective whether they are government, public or private businesses, formal or informal sectors, and investment.

3. Economic Census

79. The last economic census in Egypt was carried out in 2000/2001 and it was conducted on an economy-wide scale. In general, economic censuses are conducted every five years and they include all economic activities carried out by establishments for all sectors - public, private, formal and informal. Units of the informal sector were covered in the last census except for activities in sections E - Electricity, gas and water supply, M - Education and N - Health and social work. Administrative data were also used to supplement the direct enumeration except for activities in sections N - Health and social work and O - Other community, social and personal services activities. The main data

items compiled from economic censuses are: Employment and wages, Production value, Number of establishments, Production prerequisites, Expenses and Revenues, Working capital, and Fixed assets. The next economic census is not planned yet.

4. Economic surveys of the formal sector: survey frames

80. Two survey frames are used for covering all economic units of formal sector in Egypt – *area-based* frame for small units for which drawing the exhaustive list is not feasible and which can thus be covered only by geographical area approach; and *list-based* frame for the remaining part of the units, most of which are usually public units. The *list-based* frames are obtained from the latest census list and administrative business registers. The frames are updated through field work using the economic census, the population census and administrative business registers.

81. Economic surveys are conducted at the *enterprise and/or establishment* level for all activities except for sections M - Education and N - Health and social work, for which the surveys are undertaken at the *legal unit level*. For activities in sections A - Agriculture, hunting, forestry, B - Fishing, I - Transport, storage and communications, J - Financial intermediation, K - Real estate, renting and O - Other community, social and personal services activities, economic surveys are conducted solely at the *enterprise* level.

82. In the present time, CAPMAS does not have a business register, but there is a plan to establish one in the near future.

5. Economic surveys of the formal sector: coverage and periodicity

83. Annual economic surveys are conducted for all activities. Quarterly surveys at present are carried out for the activities in sections A - Agriculture, hunting, forestry and D - Manufacturing only.

84. The total number of employees (10 and 5 employees for manufacturing and distributive trade respectively) is the *threshold* applied with respect of units' inclusion in the sample, irrespective whether they belong to formal or informal sector. All public sector units are completely covered regardless of the number of their employees. Data are mainly collected through *mail dispatch* with subsequent follow-up *visits* of field personnel.

6. Data contents of economic surveys

85. The annual economic surveys provide the full set of financial variables reflecting income, expenditure and balance sheet position of units, thus allowing their value added to be measured. Annual surveys provide also full output details in terms of ISIC and CPC product classification.

7. Informal sector

86. As indicated in para. 63, all economic units above the threshold are included in the survey frame regardless whether they belong to formal or informal sector. The current economic statistics practice in Egypt does not consider formal/informal sector dichotomy. Even, a satisfactory distinction between formal and informal sectors that receives a full consensus of all stakeholders in Egypt has not yet been arrived at.

87. With regard to smaller economic units (establishments with number of employees below the threshold indicated in para. 63 above), the periodic economic censuses provide pertinent data almost every five years. Most of those units are believed to be informal; however, some might belong to the formal sector.

8. Supplementary topics

88. CAPMAS disseminates statistical data in Arabic and English through paper publications, CD Rom and online database (Egypt Intranet). Publicly disseminated data have fixed release dates. Metadata is disseminated whenever appropriate to supplement statistical information as well as the revision policy document is. Data quality reports are prepared but they are not usually disseminated to the general public. CAPMAS has a user satisfaction survey and it is working now on developing it.

89. Difficulties and challenges that impede the compilation of basic economic statistics in Egypt include: (i) strong need to conduct informal sector surveys for units in trade, construction, and services activities; and (ii) need for measuring underground economy.

Ethiopia

1. General information

90. Statistical activity was established as a regular government activity in Ethiopia in 1960. This marked the first step in institutionalizing statistical work in the country. The basis for this establishment was the resolution of the Addis Ababa Conference of the African Statisticians from UNECA member countries in 1960. The existing statistical practice at that time was organizationally set up within the then Ministry of Commerce, Industry and Tourism. In 1963 the regular statistical activity became the mandate of a newly structured and autonomous organization called Central Statistical Office (CSO). At the beginning, CSO was subordinated to the Ministry of Planning and Development and thereafter to the Planning Commission up until 1964.

91. The Statistical Law No. 303/1972 defined the rights and responsibilities of the Central Statistical Office (CSO). In 1989, CSO was restructured and became subordinated to the Council of Ministers by the name of Central Statistical Agency (CSA). The major mandates and responsibilities of CSA, among others, are to:

- (a) Collect statistical data through censuses, sample surveys, administrative records and registrations as well as process, evaluate, analyze, publish and thereby disseminate the results and also serve as the country's information center;
- (b) Prepare short, medium or long-term national statistical program for the collection, processing, evaluation and analysis of data required for socio-economic development planning and upon approval, execute the program and projects within the given budget.

92. The activities and the mandate of CSA are mainly aimed at the production of statistical data required for development planning, monitoring and evaluation of all sectors of the economy. To that effect, CSA is conducting several surveys to collect and compile economic statistics in various sectors, as it is one of its main objectives to steadily develop and improve the system of economic statistics in order to extend and intensify data collection and improve the quality of the statistical data in the country.

2. Institutional arrangements

93. A Director General and three Deputy Director Generals head the CSA. One of the Deputy Directors Generals is responsible for the economic statistics activities. The Economic Statistics Branch has three departments, namely: the Natural Resources and Agricultural Statistics; Industry, Trade and Service Statistics; and Household Budget and Price Statistics. The departments are further subdivided into two or three expert teams. Furthermore, the Agency has 25 Branch Statistical Offices located all over the country, which mainly administer data collection and supervision activities.

94. The economic statistics programme covers mainly activities in the following ISIC sections: A - Agriculture, C - Mining and quarrying, D - Manufacturing, E - Electricity, gas and water supply, F - Construction, G - Wholesale and retail trade and I - Transport, storage and communications.

3. Economic Census

95. The Census on Economic Establishments/Enterprises has been conducted aiming at the establishment of a comprehensive statistical business register at CSA. The Census was carried out in February/March 2004. It was the first census of its kind. It comprised all profit making business units being active in the economy irrespective of the type and legality of the business. Non-profit units or organizations were not included. The census was carried out in urban parts of the country by face to face interview using a questionnaire.

96. Based on the results of the census, CSA made an attempt to establish a register of economic establishments/enterprises which would contain all business units. The statistical business register was designed to contain basic size and type characteristics such as address, economic activity, number of persons engaged, legal status, paid-up capital, revenue and other related structural data, of all business units.

97. Although the field work of the census was carried out without much problem, there were a number of shortcomings:

- (a) The census of the economic establishments was found to be a huge undertaking;
- (b) The qualities of the data on size indicators, which are very important for further economic survey sampling, were not reliable ;
- (c) Lack of in-depth knowledge for establishing a database for such huge data as required for sampling activities.

4. Economic surveys of the formal sector: survey frames

98. A list or directory of establishments/enterprises or population of business units acting in the economy of the country by basic size-indicators represents an important tool for conducting surveys/censuses in the economic/business sectors. The list of economic establishments/enterprises by basic size-indicators does not only show by its own essential trends and structural characteristics of the economic/business units and related activities, but it is also the basis for building up a coherent system of economic statistics. It helps in preparing, managing and coordinating the various economic surveys/censuses. However, CSA is not as successful to have a robust business register, though there was some effort in this direction.

99. Currently the CSA's major emphasis on economic statistics is to establish a reliable frame or business register system by conducting well designed census of economic establishments/enterprises in two years time. Because of the problem or almost unavailability of timely, updated business register, except for Large and Medium Scale Manufacturing Industries, CSA uses indirect methods such as area sampling, mixed-households surveys approach and administrative data sources for conducting economic surveys on various sectors.

5-6. Economic surveys of the formal sector: coverage, periodicity and data contents

Agricultural sector

100. Agriculture is the leading sector in the Ethiopian economy. It accounts for about 45 percent of the GDP, employs about 80 percent of the labor force, generates about 80 percent of the export earnings. Hence, the process of agricultural planning, strategy, designing, policy formulation and analysis, budget preparation, project implementation, appraisal, monitoring and evaluation require a large volume of agricultural statistical data/information.

101. Agricultural statistics are produced through the “Integrated Household Survey Program” which is carried out on annual basis since 1980. The current annual agricultural sample survey includes: (i) crop forecasting; (ii) area and production of the main and

short rain seasons; (iii) farm management practices/inputs, irrigation, etc.; (iv) land utilization /crop land, fallow land, grazing land, wood land, other land uses, size of holdings, etc.; and (v) livestock /livestock number, products and by products, poultry, fishes, beehives, etc.

102. These data are available annually for private peasant holdings (for both seasons). CSA's agricultural sample surveys are currently the major primary data sources in the country. The annual agricultural sample survey represents over nine million small holders cultivating more than 10 million hectares and account more than 90 percent of the agricultural output. However, the reliability of the data on Large and Medium Scale Commercial Farms/Enterprises survey result is not as such satisfactory for various reasons. Among others, this is due to the fact that CSA uses unreliable frame and also underestimation of income and related data is reported purposefully by the enterprises.

Mining and quarrying sector

103. A wide variety of minerals including metals, non-metals, the dominant currently being gold, as well as, industrial and energy minerals including various types of quarrying activities are known to exist in the country. However, the exploitation and development of these minerals is at its infant stage. The envisaged progress and development of the Industry however requires statistical data in the sector. The data items required in this sector are mainly: mineral and quarrying production, sales, value added, domestic consumption, export and import by type; statistical data on location, reserve, grade and use by type and; inputs and investment expenditure, mineral exploration, etc.

104. Data on mineral exploration, investment, imports and exports are collected on an annual basis. For quarrying activities, CSA has conducted a comprehensive survey twice. However, the result of these surveys was not as good as it should have been. The list of establishments/enterprises (the frame) obtained from administrative records is incomplete for taking real sample. Furthermore, under estimation of income and non-response rate are other major problems.

Manufacturing sector

105. The contribution of the manufacturing sector to the national economy is relatively low, with value added share of less than 15 percent of the GDP. However, it is one of the dynamic modern sectors showing promising changes. A lot of effort and resources is put in place to carry out surveys and censuses on the manufacturing establishments/enterprises, which include: Annual Survey on Large and Medium Scale Manufacturing Industries (since 1976); Quarterly Survey on Large and Medium Scale Manufacturing Industries (since 2000); Producer Price Survey on Manufacturing Industries (PPI-M) (since 2004) on quarterly basis and; Small Scale and Cottage/Handicraft Industries Survey, every five years.

106. CSA obtains the list of enterprises or directory for Large and Medium Scale Manufacturing Industries from various Ministries and Agencies and updating is done

annually. However, for Small Scale and Cottage/ Handicraft industries the survey is usually carried out using area sampling, based on the results of the Population and Housing Censuses.

Electricity gas and water supply sector

107. The energy sector is made up of three sub-sectors, of which the power sub-sector is the most dominant, from the point of view of its contribution to economic development; petroleum and traditional/alternative sources of energy constituting the rest. Refined petroleum products are imported. Statistical data on the following areas are believed to be crucial for the energy sector development: (i) energy supplies by source of energy; (ii) energy consumption and demand; (iii) energy prices, sales and value added; and (iv) financial information.

108. From the survey reports on electricity industry, data are available on installed generating capacity and electricity products, sales and revenue, intermediate costs, value of fixed assets, etc. Data are also collected on petroleum import; prices and related data from administrative records. The traditional sources of energy data on consumption and related activities are some how available only from household surveys such as Household Income, Consumption and Expenditure Survey.

109. Regarding the water supply, purification, distillation and distribution of water data are available from administrative sources. But they are not currently compiled by the agency. For household surveys, CSA conducts the Welfare Monitoring Survey every three years from which percentage of the rural/urban population having safe and adequate water supply along with access to proper sanitation facilities, is obtained.

Construction

110. The construction activity generally contributes much to the country's total activity, at least with the corresponding demand for materials and labor inputs. The swings in the level of construction activity tend to both amplify and to lead the movements in the economy as a whole. It is for this reason that any available construction statistics and indicators tend to be closely watched by policy makers and researchers. Furthermore, statistics on the construction activity also provides inputs for the compilation of National Accounts.

111. In Ethiopia, construction is showing a sign of a highly accelerated expansion in recent years, which resulted in, unlike the previous years, severe shortage of construction materials, most notably cement. Therefore, in order to fulfill these data requirements on the sector, data that ought to be generated are expected to cover, contract construction by construction industry proper, non-construction units carrying out contract construction and own account construction.

112. The data need on construction activities include the value of construction put in place, repair and maintenance, cost and quantity of inputs, etc. In this respect, CSA has

carried out two surveys including one pilot survey on contract construction. Various problems, however, were encountered during the survey. The major problem was related to the unreliability of the frame. In addition to the difficulty in locating the enterprises by the addresses obtained from the directory, high non-response rates were also the most important hurdles faced.

Distributive trade sector

113. Statistics on the distributive trade and services include wholesale and retail trade, personal services, hotels and restaurants. This sector contributes between 15 - 20 percent of GDP. CSA has conducted nationwide surveys on distributive trade and services twice: in 1997 and 2003. Although the results were relatively successful and disseminated to users in time, there were shortcomings in the frame used for the survey. Due to absence of a reliable frame, CSA conducted this survey using area sampling based on the results of the population census.

Transport and communications sector

114. Transport and communications as it is well known, play a vital role in the expansion and/or development of the socio-economic sectors of a country. The contribution of this sector to GDP is less than 10 percent. The transport and communication statistics compiled by CSA are from administrative records. Because of this, though CSA has tried to improve the details of the data, contents are mostly determined by the availability of information at the sources.

115. The compilation of transport and communications data among others include: (i) *in the transport sector* - freight traffic volume, revenues, passenger and employment in each modes of transport i.e. land, water, air and rail; (ii) *in the communications sector* - employment, type of service, revenue and expenditure, etc. of the various communication media: telephone, telegraph, internet, radio, television, newspapers and periodicals.

Other economic sectors

116. Some basic information on profit making institutions in sections M – Education, N - Health and social work and O – Other community, social and personal services activities have been covered for the first time by the 2004 economic census. However, the overall performance and various indicators in relation to these activities are compiled usually through administrative records data, household surveys such as welfare monitoring, and other social statistics surveys.

7. Informal sector

117. CSA has successfully conducted two nationwide urban informal sector surveys to provide comprehensive data to users on the size, characteristics and contribution of the informal sector to the national economy. As evidenced from the latest 2003 informal

sector survey, this sector contributes nearly 50 percent of urban employment in the country. The informal sector survey provides data mainly on:

- (a) The number of informal sector establishments classified by kind of economic activities, type of work place;
- (b) Employment earning's, hours of work, output, value added, operating surplus, capital equipment;
- (c) Conditions and constraints under which informal sector operators operate, financial resources;
- (d) Characteristics of the households and household members of informal sector operators.

118. The informal sector refers to home based or individual establishment/activity operated by the owner with few or no employees. Therefore, CSA conducted both surveys as a household type survey; the sample drawn was based on the population censuses results.

8. Supplementary topics

Dissemination and users

119. CSA plans and executes various economic surveys using its National Integrated Survey Program (NISP) as well as ad-hoc surveys, annually. Moreover, the agency periodically plans and undertakes censuses. The data from these surveys and censuses are processed, evaluated, analyzed and publications presenting the results of the surveys or censuses are prepared, printed and disseminated to users. In general, the data for each sector is disseminated to users via dissemination seminars, publications, CDs and the website of the CSA.

120. The availability of and the sustainability in the flow of timely economic statistics data remains crucial for the purpose of designing programs and for formulating sound economic policies and strategies both at federal and regional levels. Moreover, gauging the impact of policy changes via quantitative economic indicators over time is only possible with the availability of reliable economic data that reflects the activities of the sector under consideration. Understanding the breadth and depths of the activities of the emerging private sector also requires uninterrupted and timely flow of basic economic data on key variables, such as, investment structure and trend, output, sales performance, market outlets, value added, etc. In this regard there exists a huge data requirement or demand on various economic sectors for development planning, policy making, national accounts, research and other purposes.

Difficulties and challenges

121. The impeding factors and challenges in the compilation of basic economic statistics are mainly related to the lack of resources, inadequate survey frames, unavailability of an up-to-date business register, low response rates, etc.

Gabon

1. General information

122. The Decree No. 00718/PR/MPAT of 31 May 1983, determined the administrative composition and main objectives of Gabon National Statistical Office (Direction Générale de la Statistique et des Études Économiques (DGSEE)) which is responsible for the collection compilation and dissemination of official statistics in the country. A Statistical Law is currently underway which will set clearly the mandate and the legal basis for the operation of the office. DGSEE has four Divisions each headed by a Director General assisted by a Deputy Director:

- (a) General Statistics Division whose role is to compile a broad array of statistics including consumer price indices, the statistical yearbook, external trade statistics;
- (b) National Accounts Division which is responsible for the compilation of national accounts, the collection of economic and financial statistics, and the conduct of economic studies;
- (c) Demographic Statistics Division which is responsible for the conduct of specialized or periodic demographic surveys;
- (d) Studies, Statistical Coordination and Information Division whose role is to coordinate the national statistical production, manage and disseminate the statistical documentation, and ensure its processing by information technologies.

123. The economic statistics work is undertaken by the General Statistics Division and the National Accounts Division.

2. Institutional arrangements

124. The economic statistics programme of DGSEE covers all 14 ISIC sections listed in the questionnaire. Economic statistics programme about activities in sections A - Agriculture, B - Fishing, C - Mining and quarrying, H - Hotels and restaurants, I - Transport, storage and communications, M - Education, and N - Health and social work is carried out concurrently with the respective line ministries and specialized agencies. DGSEE cooperates with the Central Bank regarding the data on section J - Financial intermediation.

125. In line with this way of organization of Gabon economic statistics programme, it is worth noting that DGSEE compile its data from two main sources: (i) the regular

statistical survey programme; and (ii) the administrative data collected at sectoral level from the line ministries or specialized agencies and the Central Bank.

3. Economic Census

126. The last economic census in Gabon was carried out in 2003. It was conducted on an economy-wide scale covering all 14 listed ISIC sections. Units of informal sector, however, were not covered in this census. Administrative data were thoroughly used to supplement the direct enumeration for all activities. No threshold was applied with respect to units' inclusion in the population to be completely enumerated. The next economic census is planned for 2008 and is expected to be a more comprehensive inquiry that will cover units of the informal sector.

4. Economic surveys of the formal sector: survey frames

127. The survey frames for the conducted economic surveys of the formal sector are *list-based* obtained mainly from administrative business registers and the feedback from previous inquiries. Economic surveys are conducted at the *enterprise* level for all activities. There is no a statistical business register at the present, however, plans are made for its establishment in the future.

5. Economic surveys of the formal sector: coverage and periodicity

128. All conducted economic surveys of the formal sector are carried out on an annual basis. No threshold is applied in these surveys with respect to the units' inclusion in the sample.

6. Data contents of economic surveys

129. Annual economic surveys provide the following two categories of data items: (i) set of financial variables reflecting income, expenditure and balance sheet position which allows for derivation of value added; and (ii) full output details in terms of CPC compatible product classification. Some data items by product categories are also collected on a monthly basis. .

7. Informal sector

130. Economic statistics data on the informal sector are generally compiled by the National Accounts Division. To capture the activities of informal sector units DGSEE uses mainly mixed households-enterprise surveys and the economic module of the census of population. The main data items collected about the production activities of these units are their total revenues and expenditures (intermediate consumption, wages and taxes).

8. Supplementary topics

131. DGSEE does not have fixed release dates for publicly disseminated data. However, metadata is usually disseminated along with the statistics produced and published. Concrete steps for the development of a revision policy and quality measurement of economic statistics have not been taken yet.

132. The necessity to undertake regular surveys to complement existing information is among the main challenges Gabon is facing in the compilation of basic economic statistics. A clear need of capacity reinforcement especially in terms of database management is also imperative.

Ghana

1. General information

133. The national statistical system of Ghana started as a centralized one when the Central Bureau of Statistics was established in the 1950s. It has however changed over the years from compiling almost all statistics to its current system which is more of a decentralized one, with many ministries departments and agencies compiling statistics and the Bureau increasingly having to play more of a coordinating role.

134. The Office of the Government Statistician was established in 1948 and its functions, powers and responsibilities were formally incorporated in the Statistics Ordinance of 1950. In 1961, a Statistics Act (Act 37) established the Central Bureau of Statistics (CBS) as a Department under the Ministry of Finance and Economic Planning. In 1985, a new Statistical Service Law (PNDC Law 135) raised the status of the Central Bureau of Statistics from a Government department under a Ministry to that of an autonomous, independent public service which is the current Ghana Statistical Service (GSS).

135. GSS is headed by a Government Statistician whose duty is to advise Government and the Statistical Service Board on all matters relating to statistics. In addition, the Government Statistician is responsible for the collection, compilation, analysis, abstracting, and publication of statistical information relating to Ghana's economy and society, conduct of surveys and censuses, coordination of the publication of socio economic data. The Statistical Service Board which is the governing body of GSS, appointed by the President, supervises the Government Statistician. The GSS Law states that all Public Services and other organizations should collaborate with the Government Statistician in the collection and other activities relating to statistics of their organizations.

136. GSS has 10 regional offices located in its 10 regions and district offices in some of its 138 district offices. These regional offices are headed by Regional Statisticians, who are engaged and controlled by GSS to collect data as prescribed by GSS head office. In addition to data collection, the regional offices also disseminate data in their respective regions and act as representatives of GSS in the regions and districts. The regional and

district offices are however not exclusively controlled by GSS but also work as part of the local administration of Ghana under Regional and District Coordinating Directors.

2. Institutional arrangements

137. Basic economic statistics has been compiled by GSS in collaboration with ministries departments and agencies, covering market activities classified under ISIC sections A - Agriculture, hunting, forestry, B - Fishing, C - Mining and quarrying, D – Manufacturing, E - Electricity gas and water supply, H - Hotels and restaurants and I - Transport, storage and communications.

138. Line ministries such as the Ministry of Transportation, Mines Department, Ministry of Agriculture, Ghana Tourists Board and Ghana Cocoa Board, compile some of the basic economic statistics they need in their operations as administrative statistics. Other statistics such as retail and wholesale trade, manufacturing, construction and employment statistics in all sectors are compiled only by GSS through economic censuses and surveys.

139. Ghana Statistical Service coordinates the compilation of statistics in these line ministries through the sector statistical working groups under the National Advisory Committees for Producers and Uses of Statistics (NACPUS) chaired by GSS. GSS has also conducted economic censuses in collaboration with the line ministries responsible for the associated sectors.

140. Data is not yet compiled on a regular basis for activities in sections F - Construction, J - Financial intermediation, K - Real estate, renting and business activities and G - Wholesale and retail trade. Administrative data compiled by governmental units such as the national Value Added Tax office, the Large Tax Payers Unit (LTU), and the Social Security and National Trust (SSNIT) offices, have been the main source of data used in the compilation of estimates of value added for these sectors. Economic censuses conducted so far have covered construction, wholesale and retail trade but with much difficulty.

141. Market activities under sections M - Education, N - Health and social work and O - Other community, social and personal service activities are not compiled separately from the non-market activities under these sections. Statistics on these activities are usually aggregated with activities under non-market activities though they are compiled by the Ministry of Health and Social Welfare Department.

3. Economic Census

142. Three industrial censuses were conducted in 1962, 1984 and 2003. They covered all establishments in manufacturing, mining and quarrying, electricity and water establishments. In 1962, distributive trade was also covered while in 2003 construction was covered in addition to these sectors. During the first phase, data was collected on employment (persons engaged), location, and identification while in the second phase,

data on production, sales, earnings, costs, stocks, and fixed assets was collected from larger establishments engaging more than 10 persons. In 2003, a 5 percent sample of establishments engaging less than 10 persons was also covered using a shorter version of the census questionnaire.

143. For the agricultural sector, the country was one of the 23 African countries that participated in the World Census of Agriculture in 1950. The scope of data collected was then limited to regional estimates of acreage and production of food crops. In 1964, there was a complete enumeration of large and specialized holdings. From 1965 to 1969, annual sample surveys of smallholdings together with complete enumeration of large and specialized holdings were held. From 1965 to 1969, annual sample surveys of small holdings together with complete enumeration of large and specialized holdings were held. The sample size of smallholdings rose from 2,000 in 1965 to 5,000 in 1969.

144. In 1970, the country successfully participated in the World Census of Agriculture. The programme involved the collection of data from a sample of over 58,000 holders from 702 sample enumeration areas. Two census reports presenting results on land use, crops and livestock were published in 1972 and 1973. The last agriculture census was conducted in 1984. Ten thousand and eighty holders were sampled and interviewed in this census. Since then, annual surveys have been carried out.

4-5-6. Economic surveys for the formal sector: survey frames, coverage and periodicity, and data content

145. The economic statistics for the formal sector are obtained through the establishment surveys, administrative data sources and economic censuses. Most surveys are conducted at the establishment level, however, there are some surveys conducted at the enterprise or legal unit level. Combination of *area-based* and *list-based* frames are used for surveys of all activities. The *list-based* frames are obtained from the latest establishment census and also the population census. They are updated through field work and administrative business registers. The types of surveys, survey frames, periodicity, and data compilation methods for each sector are summarized below:

Agricultural sector

146. Annual agriculture statistics on food crops production and livestock are collected from farm holdings by extension officers of the Ministry of Food and Agriculture. The Cocoa Board collects statistics on cocoa production while fish production statistics is compiled by the Department of Fisheries. Between 1951 and the early 1960's, many surveys on specific aspects of the country's agriculture were undertaken, but the national estimates of area and yield of crops were derived from reports submitted by district agricultural officers.

147. Current method used in determining yield and acreage is the Tape and Compass method. Staff at the Head office reported that they require training in more scientific techniques being used in India and Uganda.

Mining and quarrying sector

148. Monthly surveys on all mines are conducted by the Mines Department whose field staff collects Mining statistics on production and employment. Other statistics on persons engaged, earnings, input costs, sales, etc. are collected by the Statistical Service in the annual mining surveys and decennial censuses.

149. The survey frame for mining and quarrying statistics is the list of establishments primarily engaged in the activity during the period of the last industrial census. This list is updated using lists from the Mines Department. The establishment is the unit of enumeration.

150. Monthly production and price statistics are compiled for all mining establishments for computation of the Production and Producer price indices. Annual surveys are conducted as described for the manufacturing sector, without much success. Data items covered are the same as for manufacturing. The monthly surveys for mining production index and producer price index are continued with monthly indices computed and published up till December 2006. Monthly mining production statistics are usually available on a timely basis from the Mines Department. Other data items on wages and salaries, employment, costs, etc. which are collected by the GSS field staff who visit the mines for interviews are more difficult to collect. GDP estimates for the mining sector are computed using monthly production statistics and census ratios of value added to output for the specific mining industries

Manufacturing sector

151. Surveys on the manufacturing sector are conducted by GSS on selected establishments by field officers of Ghana Statistical Service. Data is collected on production for selected commodities for Production and Producer price indices. The survey frame for manufacturing is the list of establishments primarily engaged in that activity. The plan has been to use the list of establishments obtained from the industrial census, updating it by matching it regularly. The unit of enumeration is the establishment. Enumeration is done by field interviewing conducted by GSS regional field staff.

152. Monthly production and price statistics are collected from a sample of manufacturing establishments for compilation of the production and producer price indices. Annual surveys have collected data on employment, wages and salaries, input costs, sales, production and stocks for establishments engaging 30 or more persons. Results of the annual surveys were published in the Industrial Survey Report which was published annually till 1989. The response rates for the annual surveys have been less than 40 percent since 1990. The survey has therefore been discontinued whilst the Service in collaboration with the Ministry of Trade and Industry plans to reengineer the survey to address obstacles that have led to the poor rate of response before continuing with the survey.

153. Estimates for annual manufacturing production are made for national accounting purposes using the index of manufacturing and statistics on tax payments by the manufacturing establishments collected from the Value Added Tax Office. Census data on industry specific value added to output ratios are also used to improve GDP estimates. Ad hoc surveys such as the Oxford Manufacturing Enterprise Survey have been conducted by the Oxford University, U.K. in collaboration with GSS.

Electricity and water supply

154. The survey frame for electricity and water statistics is the list of establishments from the industrial census. The unit of enumeration is the enterprise. Data is compiled on monthly and annual basis. Water is not covered under the survey for production index. The index of electricity production has been compiled up to December 2006. Data items collected in the annual survey include employment, wages and salaries, input costs, sales, production, stocks, fixed capital formation and depreciation. Electricity and Water establishments in Ghana are mostly state owned; hence data is collected from the head offices of the Ghana Water Company and the Electricity Company of Ghana. Financial Statements of these companies provide information for annual estimates of GDP for national accounts.

155. Data on generation and distribution of electricity and water are obtained from the head offices of the departments responsible for electricity and water production and distribution- the Volta River Authority, Electricity Company of Ghana and the Ghana Water Company. While monthly data on electricity production is easy to compile, monthly data distribution of electricity is difficult to compile.

Construction

156. The first construction survey was conducted with the inclusion of construction in the 2003 national industrial census.

Distributive Trade

157. GSS is planning to start surveys on whole sale and retail trade. It therefore conducted a pilot survey in the last quarter of 2006

Hotels and Restaurants:

158. Statistics on number of hotels, hotel occupancy rates and receipts are collected from hotels by staff of the Ministry of Tourism.

Transport

159. Only administrative statistics has been compiled on transport. For the first time, a household survey is being conducted to determine the use of transport.

Other activities

160. For activities in other ISIC sections such as Financial Intermediation, Real Estates, renting and business, Education, Health and Personal Services, statistics are not yet compiled through surveys.

Statistical Business Register

161. To date, GSS has not been able to maintain an updated business register even though an attempt was made to establish a register after the 1987 industrial census. Another attempt is currently being made to establish one using the listing from the 2003 industrial census and administrative listings from the tax collection and social security agencies. Updating of the register requires some amount of field work to obtain postal and location, addresses as well as basic information on activity and employment. Funds are usually not set aside for this activity which requires a fair amount of both office matching and fieldwork. The justification for keeping a business register was lost with annual surveys unable to provide satisfactory results due to low response rates. However, high non response rates may have been due to outdated information on businesses registers such as establishments' physical locations, changes in business names and closure of some businesses. Field staff has usually not provided this important information on the non responding establishments.

Administrative Data Sources

162. Statistics on newly registered vehicles, road worthy vehicles, road statistics, freight and passenger statistics for rail, air and sea travel are compiled from administrative data from the Civil Aviation, Ghana Ports and Harbors Authority and the Driver and Vehicle Licensing Agency. Agriculture statistics on cocoa production is also compiled from administrative data compiled by the Ghana Cocoa Board, which is the state owned institution responsible for purchase and export of cocoa, a major export commodity.

163. Data on tax payments by business establishments to tax collecting agencies is also used for estimation of sectoral GDPs. Estimates of wages and salaries in the formal sector is computed from data on social security contributions paid by establishments to the State owned institution Social Security and National Insurance Trust (SSNIT) to which most formal sector businesses and all government employees are registered. Data on hotels and restaurants are compiled by the Ghana Tourists Board from administrative data.

7. Informal sector

164. The informal sector is mainly covered by the household surveys though many of the smaller establishments covered under the establishment surveys are informal. In nature, with many of them not registered with any formal institution or keeping records of their productive activities. Household surveys on household enterprises have been

conducted using the 2006 Ghana Living Standards Survey's household enterprise module.

8. Supplementary topics

User satisfaction surveys

165. The main users of basic economic statistics are the GSS's National Accounts Section, policy making and monitoring units of the ministries departments and agencies, research institutions, local and foreign investors, business establishments, business and commercial associations and groups, and international agencies such as the United Nations and the World Bank. Responses to a recent short inquiry on user needs, satisfaction and sources of data indicate that GSS and Ministries Departments and Agencies depend very much on administrative data for basic economic statistics. This is partly because published survey data has not been available for many years.

- (a) The Central Bank, GSS's National Accounts Section, Ministry of Finance and Economic Planning and the National Development Planning Centre have relied on estimates of economic indicators that are derived from administrative sources. They have learned to be satisfied with this situation even though they recognize it as not the best. Sometimes, this has led to waste of time and resources duplicating and quadrupling of effort production of statistics, with extra time spent deciding on which agency's figures are right;
- (b) Most of the institutions covered reported the need for GDP and employment statistics and that they are fairly satisfied with GDP statistics that are available but highly dissatisfied with availability of employment statistics. Some Institutions such as the Ministry of Finance and Economic Planning and The Central Bank require GDP on monthly or quarterly basis in addition to annual statistics;
- (c) Analysis of requests received by GSS from investors and researchers indicate dissatisfaction with the availability of statistics on production by type of commodity, and number of businesses by type of commodity, distribution of businesses by region and district, annual growth rate of industry by sector, wages and salaries, construction statistics and statistics on small and medium scale businesses;
- (d) Business Associations and Groups such as the National Chamber of Commerce and Industry and Ghana Employers Association are fairly satisfied with economic statistics they use because economic surveys have not been available for some years. They need statistics on the number of employees by sector and the percentage growth of each sector per annum and expressed the desire to collaborate with GSS to generate employment figures;
- (e) The Ministry of Agriculture, which is solely responsible for collection of statistics on food crop yield and acreage and livestock statistics, is satisfied with statistics it

generates. It is also satisfied with agro-meteorological statistics which is generated by Ghana Meteorological Agency. The Ministry however is not fully satisfied with land use and gender statistics which they need on decennial and annual basis respectively. The need for an agriculture census was expressed since the last one was conducted more than 20 years ago, in 1984.

Data dissemination

166. GSS's policy on data access is to share data on various aspects of the economy with users and the general public. The Service as a policy provides analysis and interpretation to assist the user in understanding the statistical data presented. For national surveys, there is a description of the methodology, sampling procedure and context surrounding the issues which the statistics address.

167. If data requested by a user are not in the public domain he policy is to have the request made in writing. Requests for raw data require executing a contract, in addition to the written request. In both cases, a fee is charged, not for the data set, but for processing and administrative cost of producing the data including materials.

168. Census data has been disseminated at both national and district levels in both hard and electronic formats. The Quarterly Digest of Statistics and the Economic Survey are publications that provided basic economic statistics to users but were discontinued for many years. There was also the Annual Industrial Survey Report which was discontinued in 1989. A newsletter on newly registered vehicles provided statistics on registered vehicles. This information is now compiled by the Ministry of Transportation. The Economic Survey was revived in March 2007. All available economic statistics for the period 2001 to 2005 were published in the March 2007 edition. The newly launched GSS website is another means by which data will be disseminated for public use.

Problems and difficulties encountered

169. The challenges faced by GSS and other Ministries Departments and Agencies in the conduct of economic surveys can be classified under the following headings:

Organization and leadership of GSS

170. Organization and leadership at GSS has been a major challenge to the maintenance of a sound National Statistical System. GSS the coordinating agency for Ghana's Statistical System was highly centralized on its inception, changing over the years to its current more or less decentralized system. This change over the years has had both positive and negative effects on the organization of the national statistical system. Competency and resource requirements have therefore to shift focus from only GSS to include other ministries departments and agencies. While the coordinating capacities at GSS have required more strengthening at GSS.

171. The structure of the economy has also changed in many respects from a largely state owned structure to a highly privatized one. The number of businesses has increased three fold since 1980s with many of them privately owned and located in several new urban areas. Maintenance of business registers and conduct of economic surveys therefore require much more care and skill in planning and implementation than in the sixties.

172. Developments in GSS's organizational structure have however, grown progressively weaker at the higher professional level. A high turnover of professional staff has also worsened the situation as several professional staff trained by GSS for higher management levels left to work in research departments of other institutions within the country that offered better conditions of service.

173. The organization of field work at GSS's regional offices, particularly in the regional capital, Greater Accra region, has been a serious challenge in the conduct of economic surveys. More than two thirds of the country's businesses are located in this region. Over 80 percent of the largest businesses are also located in the region. Greater Accra regional office has however not been treated with the importance that it deserves with respect to economic surveys. The region's management staff for example would perform better if they are directors of GSS, due to size and complexity of work in the region.

Financial resources

174. Government is the main source of funds for conduct of economic surveys in Ghana. Funds for economic censuses are requested separately from Special Government accounts such as the HIPC funds. In 1984 and 2003 economic censuses the World Bank funds under the economic recovery programme were used. Funds for economic surveys form part of the funds approved and released to GSS for its statistical activities during each year. The released funds usually fall short of what was requested for the year's planned activities. Budgetary requirements for economic surveys for 2008 is estimated to be about 50 percent of the total approved budget for field work at GSS for the current year 2007.

175. Release of funds is also often delayed, resulting in frequent changes in surveys program. This affects the timely production of statistics. One result of this challenge of funding is that production of basic economic statistics on a more regular basis (i.e. monthly or quarterly) is neglected. Also, surveys that require larger amounts of funds such as wholesale and retail trade surveys have not yet been conducted. These sectors form the largest share of employment in the country, following the employment in agriculture.

176. Conduct of Annual surveys may be ambitious given several competing demands on government subvention. Holding of surveys once in two or three years may be a better option to adopt.

177. Agriculture surveys conducted by Ministry of Agriculture have also suffered from limited funds for training, travel and transport for district extension officers. Training of agriculture extension officers is usually done annually, however this has not been possible this year due to insufficient funds. Priority has been given to staff travel and transport expenditures.

178. The distribution of funds by region for field work is also an issue of concern as it is not done taking into account the number of responding establishments in each region. Greater Accra region has in the past been allocated funds without consideration of its relatively larger workload.

Human resources

179. Professional staff at GSS and Ministries Departments and Agencies required for the conduct of economic surveys needs to have a fair amount of formal training in economics and/ or statistics as well as experience in survey taking. Programmers also need some experience in processing of economic statistics. The Specialty of professional staff at GSS has been skewed towards social and demographic statistics. Staff responsible for economic surveys in some line ministries such as the Ministry of Trade and Industry and Ministry of Transportation has also lacked the required background and skills for survey taking.

180. Professional staff has also required regular updates of their technical knowledge in surveys taking through exposure to improved methods of data compilation as well as leadership skills including project management skills. GSS has not taken advantage of the workshops organized as part of the world programme of economic censuses because of long delays in the conduct of national economic censuses. These delays in census taking also have adverse effects on computation of national estimates of output. Industry weights used in computation of production and employment indices are not updated as required to reflect changes in importance of production by different industry groups.

181. Field staff at GSS's regional offices has not received sufficient training in economic data collection. Concepts and definitions have to be explained to respondents by field staff that should themselves have a good understanding of them. Respondents who find that enumerators cannot assist them to complete the questionnaire pay little attention to them. Questionnaires are therefore left uncompleted, resulting in high rates of non response. Training sessions organized for field staff in economic censuses offer these field staff the opportunity to improve their skills, yet many of them are dropped in favor of temporary staff recruited to supplement census field staff, which performs much better due to their relatively better academic backgrounds. Temporary staff is usually unemployed tertiary level graduates or those about to undertake tertiary level education. The period of training during censuses is not long enough for some GSS field staff to fully grasp them. More training sessions need to be conducted for permanent field staff.

Producer/User communication

182. Lack of effective communication between producers and users of basic economic statistics has been another challenge faced in the conduct of economic surveys. Users do not communicate their needs for statistics to GSS or Ministries Departments and Agencies producing the statistics they require. Some users are not certain about what they need because they have done without the required statistics for so long that they have come to believe they can do without them. Some users reported that they sympathize with GSS for the lack of sufficient resources and therefore do not want to bother them for not meeting their needs.

183. Most users need GDP statistics produced by GSS on quarterly and monthly basis. The national accounts section of GSS needs quarterly and monthly basic economic statistics to meet this need. Satisfying the needs of National Accounts will therefore go a long way to satisfy the needs of many users.

Record keeping by respondents

184. Many businesses including farm holdings do not keep proper accounts. Those who keep accounts are also not able to provide the details required for computation of certain indicators based on commodity statistics, because they fail to breakdown costs and production into the details required. This is also true for employment and earnings by skill levels and gender.

Legislation

185. The GSS law does not spell out clearly which institution should be responsible for agriculture censuses and surveys. A question arises as to whether it is appropriate for a policy implementing agency alone to monitor its own performance or whether this should be made the responsibility of an independent institution such as GSS.

186. Also, the Law must also spell out the requirement for submission of administrative data to GSS. The current Law states that Ministries Departments and Agencies should collaborate with GSS but does not give specific details on what the collaboration should entail. For example, Laws are needed, requiring Registrar Generals Department (RGD) and SSNIT to ensure that the correct data is collected on establishments location, address, employment, kind of activity etc. This will also help in the establishment of business registers.

187. Furthermore, the GSS Law does not compel respondents to comply with orders to submit returns to GSS. Fines stated in the current law for non compliance with data submission by establishments are too low because they have not been updated for years. Due to the outdated fine of five thousand cedis (which is less than 50 US cents) non-response rates will remain high even if the measures to improve response rates are put in place.

Communication with suppliers of data

188. Experience from the 2003 industrial census indicates that communication with respondents is a key to success in the conduct of economic surveys in Ghana. GSS head office staff and Regional Field officers responsible for annual surveys have not performed very well in communicating with establishments. As a result, response rates have been well under 40 per cent for annual manufacturing surveys conducted by GSS.

189. Response rates are however much higher for similar ad hoc surveys conducted on a project basis but using GSS field staff. Under the Oxford Manufacturing Enterprise project for example, regional statisticians and some senior statisticians at the Head offices were specially assigned under the project to interview managers and accountants to complete the questionnaires. On the other hand, in annual surveys, apart from the regional field staff who visit establishments merely to drop and pick questionnaires, there is very little communication between senior field staff of GSS and management of the establishments. Advertisements in the national newspapers, stakeholder meetings and meetings with respondents through their associations and groups have proved to be useful in soliciting responses from difficult respondents who have for many years not been responding to GSS's questionnaires without trouble. These activities however require a considerable amount of expenditure which competes with requirement of transport and travel expenses for field visits.

Use of Administrative Data Sources

190. Administrative data used for estimating national accounts statistics can sometimes result in the release of highly inaccurate statistics. The use of records of wages and salaries of registered employees at SSNIT has for example resulted in reports of high annual wages and salaries per employee for the private sector because a small proportion of private employees are registered in this government institution while all government employees are registered there. Similarly, estimates of GDP for Energy sector using data on electricity generation and excluding output from its distribution can also be misleading. Likewise, estimation of GDP for construction using data on cement production and imports of construction inputs can also be dangerous. The use of VAT data for estimation of industry GDP also has its own weaknesses;

Establishment and use of Business Register

191. Establishment of a business register has been one of the major challenges faced by GSS. Listing of establishments with good registry information obtained during industrial censuses have provided a register of establishments primarily engaged in manufacturing, mining and quarrying, electricity and water. Listings of establishments for other sectors have been obtained from administrative records, particularly those from the Registrar General's Department, Value Added Tax office and SSNIT.

192. Many of the establishments in these listings however, lack good descriptions of physical locations, telephone or postal addresses. Ghana lacks a good geographic address system in most of regional capitals where most businesses are located. Many streets and areas have no formally assigned names. It is therefore a challenge for managers of

administrative sources to ensure that proper addresses are obtained during registration or licensing of businesses. Information on kind of activity and employment which is also required for a business register is also missing from many of the lists obtained from administrative records. Where this is available, kind of activity is not classified according to Ghana industrial classification or according to standard definitions of employment used at GSS for its surveys.

193. Another major challenge has been the non-computerization of the Registrar Generals Department (RGD), which registers businesses in the country. This department has for many years operated only one office located in the capital city Accra. This has discouraged new and smaller businesses outside the capital (Accra) from registering due to the added traveling expenditure. GSS has made some effort to encourage RGD to use the appropriate activity classifications (GISC) in compiling registry records. Some staff of RGD has been trained by GSS as part of GSS-RGD collaborative effort. There are however some problems being faced in its implementation.

194. The business registers have been updated by matching them with updated listing from the administrative sources mentioned above (see para. 141-142). New establishments identified are included to the list while old establishments that are missing are removed. The problem with this method is the difficulty in ascertaining whether the new and missing establishments are actual births or deaths. Without field visits it is difficult to obtain information on the employment and kind of activity.

Data dissemination

195. The problems with dissemination of economic statistics are mainly with GSS operations. The Publicity and Dissemination Division has not functioned well till 2004, even though there has always been an information office which mainly sells publications. The GSS website established in 2006 will greatly improve access to information in the future. However, this will depend on how well information on the website is kept up to date with new releases at GSS.

196. Staff responsible for dissemination needs training in dissemination in order to satisfy users' needs. Details of the types of data available in the Service have to be on their finger tips. This will reduce the bureaucracy that respondents face when they request for data at GSS. Sometimes, the officers at information desk direct visitors to three or more departments to find out what is available. Regional and districts officers responsible for data dissemination also need to know what data is available and interact more at their regions with users by organizing meetings, to train users on use and availability of statistics. Extra funds are however required for this.

Kenya

1. General information

197. Official Statistics in Kenya are collected under the Statistics Act 2006, which came into operation in February 2007. The Act established the Kenya National Bureau of Statistics (KNBS) as a body corporate with the mandate of collection, compilation, analysis, publication and dissemination of statistics. The Bureau oversees the coordination, supervision and development of programmes within the National Statistical System. Previously, the Central Bureau of Statistics (CBS), (the predecessor of KNBS) operated under the Statistical Act (Cap. 112) which was first enacted in 1961.

198. The structure of the KNBS is still under development. However, within the structure of the predecessor organization (the CBS), the functions of collection and compilation of basic economic statistics were spread in three of the six technical divisions of the Bureau, namely: Industrial and Labor Statistics; Macroeconomic and National Income Accounts and; Agriculture, Nutrition and Environmental Statistics. The other technical divisions include: Population and Social Statistics; Data Processing, Research and Publications; and NASSEP and Field Administration Division.

199. The three divisions responsible for basic economic statistics are further organized into sections as follows: (i) *Industrial and Labor Statistics*: Sections – Labor, and Industrial Statistics; (ii) *Macroeconomic and National Income Accounts*: Sections - National Income Accounts, International Trade and Balance of Payments, Monetary and Financial Statistics, Public Finance, Transport Statistics, and Tourism Statistics; and (iii) *Nutrition and Environmental Statistics*: Sections – Food and Agriculture, Nutrition, and Environment.

2. Institutional arrangements

200. The economic statistics programme of KNBS covers all 14 ISIC sections listed in the questionnaire. In fact, KNBS collects some of the statistics directly from the line ministries. These concerns sections A - Agriculture, hunting, forestry, B - Fishing, E - Electricity, gas and water supply, G - Wholesale and retail trade, I - Transport, storage and communications, M - Education and N - Health and social work. Statistics for section J - Financial intermediation are conducted concurrently with the Central Bank.

3. Economic Census

201. Economic censuses are not conducted on an economy wide basis but rather on a sectoral basis - by activity or group of activities. Sectors covered by economic censuses programme include: C - Mining and quarrying, D - Manufacturing, F – Construction, G - Distributive trade, J - Financial intermediation, K - Real estate, renting and M – Education. The last two sectors - K and M, are covered through the 1999 Population and Housing census, therefore, they include information about the informal sector units. Administrative data sources are used to supplement the direct enumeration in two cases, namely - the 1975 census in sector G and 2006 census in sector J. A threshold, with respect to the units' inclusion in the total population, was applied in the 1982 economic census in mining and quarrying, manufacturing and construction as this threshold was in terms of the *total number of employees*. Economic censuses were planned for the

following sectors: sections C, D and F in January 2008; section J in 2007 and section M in 2009.

4. Economic surveys of the formal sector: survey frames

202. For all conducted surveys, except those for activities in section A - Agriculture, hunting, forestry, the survey frames used are *list-based*, derived mainly from a combination between an ad hoc list of units composed from various sources, administrative business registers, and a statistical business register. Surveys for activities in section A (excluding hunting) are *area-based*. All the economic surveys of the formal sector are conducted at the *establishment* level. KNBS maintains a statistical business register for its economic surveys programme.

5. Economic surveys of the formal sector: coverage and periodicity

203. KNBS conducts annual surveys for activities in sections A - Agriculture, hunting, forestry, B - Fishing, E - Electricity, gas and water supply, I - Transport, storage and communications and M - Education, and monthly surveys for activities in sections D - Manufacturing, F - Construction, H - Hotels and restaurants and J - Financial intermediation. Section C - Mining and quarrying is observed on an infrequent basis.

204. Thresholds in terms of farm size and number of employees are applied in surveys for activities in sections A - Agriculture, hunting, forestry and D - Manufacturing respectively. Administrative data from the Ministry of Agriculture and the Fisheries Department are also used to supplement the direct enumeration. Replies to economic surveys of formal sector are collected through mail dispatch, followed by a phone call, e-mail and visits.

6. Data contents of economic surveys

205. The current annual surveys provide a full set of financial variables reflecting income and expenditures of units which allows for derivation of value added by activity. Balance sheet data are collected only for units in section J - Financial intermediation. Full output details in terms of national product classification, which is not compatible with CPC are collected annually. Short-term surveys collect a selected output details and a few key variables that are necessary for the compilation of quarterly GDP.

7. Informal sector

206. Economic activities of informal sector units are captured through the Household income and expenditure and Labor force surveys, both conducted approximately every 5 years, as well as through the economic module of decennial census of population. Employment data, revenues and expenditure details, and some aspects of goods and services produced are the data items collected about the production activity of informal sector units.

8. Supplementary topics

207. KNBS has fixed release dates only for Monthly CPI. Though not published, the public generally expects the information for annual, quarterly or monthly releases within a specific time frame. Metadata is disseminated along with the published data but quality reports are lacking. There is no revision policy in place, therefore revision policy documents are not disseminated to the general public. However, the public is informed about revisions through the metadata. Major revisions are usually contained in special chapters of the relevant publications. User satisfaction surveys are conducted periodically.

208. The most important impeding factors in the compilation of basic economic statistics are related to the lack of resources and conduct of regular/benchmark surveys/census in the informal sector, agriculture and distributive trade.

Malawi

1. General information

209. The 1967 Statistics Act mandates the National Statistical Office of Malawi to collect, process, analyze and disseminate official statistics. The Economic statistics programme is undertaken by the Economic Statistics Division which is one of the 5 Divisions of the National Statistical Office. The other divisions are: Demography and Social Statistics, Agriculture Statistics, Publications and Data Dissemination, and Management Services (Finance and Administration).

2. Institutional arrangements

210. The NSO is the main producer of economic statistics relating to prices, national accounts, balance of payments, tourism, trade and industrial statistics. Economic statistics programme covers all 14 ISIC sections listed in the questionnaire, that is, from section A - Agriculture, hunting, forestry to section O - Other community, social and personal services activities.

3. Economic Census

211. Malawi has no economic census programme at this stage.

4. Economic surveys of the formal sector: survey frames

212. Survey frames used in the economic surveys of formal sector are *list-based*, derived mainly from the existing statistical business register. Ad hoc list of units composed from various sources and administrative business registers also contributes to

the establishment of survey frames. Economic surveys of the formal sector are conducted at the *legal unit* and/or *enterprise* levels for all activities.

5-6. Economic surveys of the formal sector: coverage and periodicity and data contents

213. The economic survey programme for the formal sector is mainly based on annual surveys. Medium Business Enterprises Survey and the Third Integrated Household Survey are conducted on five year intervals. Data necessary for the compilation of various indices, such as the Consumer Price Index (CPI), Producer Price Index (PPI), and Index of Industrial Production (IIP) is collected through surveys conducted monthly. Some specific data for tourism statistics, for example, are compiled from administrative records. Visits are the main data collection methods used in conducted surveys. Characteristics of some of the main formal sector surveys are summarized below:

Index of Industrial Production

214. This index is based on monthly production data for 50 firms. Those in the manufacturing sector were chosen to represent 75 percent of the total net monetary output of that sector. Those under Electricity and Water represent 100 percent of the monetary output of that sector. Most firms supply information on the quantity of goods produced, but, where output of different items varies considerably from month to month, other types of indicators are used (e.g. consumption of materials, person-hours). The weighting of the index is done in 3 stages: (i) items within industries (e.g. shirts, shorts, etc in the clothing industry); (ii) industries within divisions (e.g. clothing within Textiles, Footwear and Clothing); (iii) division within the “all items” index.

215. At the first stage, wherever possible, weights are based on “value added”. When an individual company produces more than one product the value added is split between the products in the same proportion as the gross value of sales of those products. Once the item in each industry is aggregated, the industry is weighted according to the proportion of its value added to the total value added of the division to which it belongs. Some small companies operate in industries not covered by any larger representative; in these cases the value added was included in the total for the appropriate division. For example, battery manufacture is included in “other manufacturing”. This means that the total weight for the division is increased by the production of the additional industry. Note that this assumes that output in these industries is changing in the same way as output of the industries in the rest of the division.

216. The main types of the goods covered by each industry divisions are as follows:

- (a) Food, Beverages and Tobacco: meat, dairy, grain mill, bakery products, edible oils, sugar (domestic consumption), malt liquors, soft drinks and cigarettes;
- (b) Footwear, Clothing and Textiles: woven clothes, shoes;

- (c) Other goods (mainly for final consumption): printing and publishing, packaging, industrial chemicals (excluding fertilizer), rubber and plastics;
- (d) Products for Building and Construction: cement, structural metal, machinery, equipment and wood;
- (e) Export industries: tea manufacturing, post-auction tobacco processing and sugar exports;
- (f) Electricity and Water: electric power sent out and water consumed.

Producer Price Index

217. The National Statistical Office has, since July 2007, started working on the development of the methodology for compilation of a monthly PPI for the Manufacturing sector. The IMF East AFRITAC is providing technical assistance on this project. The main purposes and uses of the PPI are:

- (a) To decompose percentage changes in value aggregates into their overall price and volume change component and improve the quality of the monthly Index of Industrial Production;
- (b) To deflate output for national accounting purposes;
- (c) To help in analysis of prices and study of sources of inflation;
- (d) PPI for specific products can be used to adjust contract prices - a procedure known as “escalation” for indexation of contracts;
- (e) Businesses can use specific PPI's to compare trends in their own prices with those of the industry group;
- (f) PPI can be used as a measure of the competitiveness of the exports.

218. The Producer Price Index of Malawi will be an *output PPI*. It will measure the change in the effective selling prices received by manufacturers for products either for sale on the local market or for exports. The PPI will reflect the price trends of a constant basket of well-specified products representing the output of the selected industries. The PPI will be a monthly index but to save on resources, it is planned to collect the monthly price information on a quarterly basis, through direct interviews of the sample of establishments.

Scope and coverage

219. PPIs can be produced for all industry groups although generally, they are computed for the goods-producing industrial sector, namely Mining, Manufacturing and the Utilities. The PPI will initially cover all the large Manufacturing establishments. The list frame contains only large and medium-scale manufacturing establishments defined as those employing 10 or more workers. Knowledge gained will enable the national statistical office to gradually expand the PPI project to other key industry groups.

Annual Economic Survey (AES)

220. The Annual Economic Survey (AES) gives a quantitative description of the economic activity of large-scale enterprises and medium-scale enterprises in other sectors of the Malawian economy with respect to their production, employment characteristics, profitability level, acquisition and issue of both real and financial claims in different sectors of the economy.

221. Previously, enterprises or firms with annual turnover of one million Kwachas (Malawi's national currency) or above were included in the survey. The criterion used is employment level within the industry. In some industries, all enterprises have been included because either they were too few to be left out or they all qualified. The AES covers private, statutory bodies and public (government) sector industries engaged in the production and sale of goods and services on the market at prices normally designed to cover the cost of production.

Sample design

222. The names of the enterprises that are selected for the survey are obtained from the Business Information Register (BIR). This is a dynamic database containing information on all enterprises known by the National Statistical Office to operate in Malawi. The register contains names, addresses, type of activity, number of employees and turnover (i.e. total incomes) of every business and it is updated on a regular basis. From the list of businesses on the BIR, large-scale profit-making industries and few medium-scale industries are selected on the basis of critical industry employment size.

Data collection

223. The AES has traditionally used the mail questionnaires sent to all large-scale profit making enterprises up to 2000 survey. From 2001 survey due to low response rate from companies, personal delivery of questionnaires to respective respondents was introduced to collect information for this report. This has enhanced the response rate because no respondents claimed not to have received the questionnaire, save for the few who admitted to have misplaced them.

224. The reference period is twelve months and this is normally the enterprise's financial year. A financial year is determined on the basis of bias of the months within the year. For example, any enterprise with its financial year ending 31st March will be

considered to have operated in the previous year because the current year has only 3 months as compared to 9 months in the previous year.

225. Due to diversity in the nature of businesses in the different sectors, it was felt necessary to develop activity-specific questionnaires. Manufacturing, Mining and quarrying enterprises, Utilities, Construction, Distribution, Catering, Banking, Insurance and Service enterprises are handed questionnaires tailored for their sectoral activities. The questionnaires were not significantly different. They have similar composition and design but differ only in items covered on income and expenditure sections. This is so because different sectors have different types of incomes and expenditures.

Data processing

226. On receipt of the questionnaires, they are checked for errors and discrepancies. Where company accounts were available, crosschecks are made with the questionnaires to detect omissions and inconsistencies. Any problems found are corrected after querying the respondent. For enterprises that failed to respond but had current annual company accounts available, their questionnaires were completed at the office using these accounts as a basis for estimates. After editing, the questionnaires were processed on using Microsoft Excel Version 6.0.

227. Enterprises are requested to respond in respect of three successive years' economic performance, basically as reflected in their annual statements of accounts. Further, missing data are estimated for by applying the activity rate of change in income, employment and expenditure in a particular table as a proxy for the growth rate. Since tables ideally combine enterprises with the same or related activities, the estimation is done based on variables in the same table.

Integrated Household Surveys

228. The Integrated Household Surveys are nationally representative sample surveys designed to provide information on the various aspects of household welfare in Malawi. These surveys are conducted by the National Statistical Office and provide a basis for the estimation of the poverty profile for Malawi. The sampling design is representative at both the national and district level hence the survey provides reliable estimates for those areas.

229. The surveys are conducted under the Integrated Household Surveys Programme. The other surveys conducted under this Programme were; the Household Expenditure and Small Scale Economic Activities (HESSEA) conducted in 1990 and the first Integrated Household Survey (IHS-1) conducted in 1997/98, the second Integrated Household Survey (IHS-2) conducted in 2004/05. The National Statistical Office also conducted the Core Welfare Indicators Questionnaire (CWIQ) in 2002 and the Welfare Monitoring Survey (WMS 2005, 2006 and 2007). The WMS has been designed to provide quick results of welfare levels of the country and is less comprehensive relative to the IHSs.

Objective of the survey

230. The survey is designed to cover a wide array of subject matter, whose primary objective of is to provide a complete and integrated data set to better understand the target population of households affected by poverty. Some specific objectives of the survey are as follows:

- (a) Provide timely and reliable information on key welfare and socio-economic indicators and also to meet special data needs for the review of the Malawi Poverty Reduction Strategy which was being implemented in Malawi for the last five years since year 2002;
- (b) Provide data to come up with an update of the poverty profile for Malawi (poverty incidence, poverty gap, severity of poverty);
- (c) Derive indicators for monitoring of Malawi's progress towards achievement of the Millennium Development Goals (MDGS) and the MPRS targets;
- (d) Provide an understanding of the people of Malawi's living conditions;
- (e) Derive an independent estimate of total household expenditure;
- (f) Provide information on household consumption on selected items with the aim of revising the weights in the Malawi Consumer Price Index (CPI).

Sample design and coverage

231. The HIS-2 had a total sample size of 11,280 households. The sample was drawn using a two-stage stratified sampling procedure from a sample frame using the 1998 Population and Housing Census enumeration areas (EAs). Each of the twenty-seven districts was considered as a separate sub-stratum of the main rural stratum (except for Likoma district). The urban stratum includes the four major urban areas: Lilongwe, Blantyre, Mzuzu, and the Municipality of Zomba.

232. The IHS-2 used a two-stage stratified sample selection process. The primary sampling units (PSU) were the Enumeration areas. These were selected for each stratum on the basis of probability proportional to size (PPS). The second stage involved randomly selecting 20 households in each EA. Every listed household in an EA had an equal chance of being selected to be enumerated. The listing of all households in the enumeration area was conducted by the National Statistical Office's staff in three phases in January, May and October 2004.

Data processing

a) Data entry

233. Data capturing for the IHS-2 started as soon as the first months of fieldwork was completed in April 2005. Data entry was done concurrently with data collection. The IHS-2 data entry centre was centralized at the National Statistical Office headquarters and was organized as follows: Once the questionnaires arrived the data editor checked the questionnaires and assigned questionnaire numbers. The CSPRO software was used to capture the data. This software provides automatic data checks for acceptable values for the variables, and checks between different modules of the questionnaire.

b) Data cleaning

234. The data cleaning process was done in several stages. The first stage was to make sure that the data as captured reflected the information that the informants provided. The data processing manager did the error checks for each enumeration area. These were cross-examined physically with the questionnaires, and the errors were documented.

7. Informal sector

235. Malawi has not conducted a survey on the informal sector. However, there is a clear need for this type of survey as it will greatly improve the estimation of this sector's contribution in the national economy. The major impeding factor in this issue has been the lack of financial resources.

8. Supplementary topics

236. Malawi National Statistical Office does not have fixed release dates for publicly disseminated data, however, metadata, data quality reports and revision policy documents are usually disseminated to the general public along with the release data. User satisfaction survey has been conducted once for almost all activities other than economic statistics. The main impeding factors in the compilation of basic economic statistics are related to the lack of resources and also to inadequate funding.

Mali

1. General information

237. Ordinance No. 91 029/P-CTSP of 29 June 1991 on governing obligations and confidentiality of statistical activities, defined the rights and responsibilities of the National Statistical Office of Mali (Direction Nationale de la Statistique et de l'Informatique (DNSI)) for the production and dissemination of official statistics in the country. The office is also responsible for the coordination among the various bodies involved in the production of these statistics. Under this law, citizens and businesses are obliged to provide information for statistical purposes when officially requested, while statisticians are obliged to protect the confidentiality of the collected information.

2. Institutional arrangements

238. The economic statistics programme covers 13 out of 14 ISIC sections listed in the questionnaire. Only activities in section O - Other community, social and personal service activities are not included. DNSI is responsible for the compilation of economic statistics for the following six sections: D - Manufacturing, E- Electricity, gas and water supply, F - Construction, G- Distributive trade, H - Hotels and restaurants and K - Real estate, renting.

239. Economic statistics for sections A - Agriculture, hunting, forestry, B- Fishing, C - Mining and quarrying, I - Transport, storage and communications, M - Education and N - Health and social work are compiled by the respective line ministries and/or specialized agencies. The Central Bank is responsible for data about units in section J - Financial intermediation.

3. Economic Census

240. Two main censuses were conducted in Mali during the past few years - the 2005 General Agriculture Census which covered activities in section A - Agriculture, hunting, forestry and the 2006 Industrial census which covered activities in sections D - Manufacturing and E - Electricity, gas and water supply. Informal sector units were covered only in the Agricultural Census. As a matter of fact, the whole agricultural sector is informal as agricultural farms in general do not keep bookkeeping records. Industrial censuses are expected to be conducted on a two-year frequency basis in the future.

4. Survey Frames used in surveys of the formal sector

241. For all conducted surveys of the formal sector, except those for section A - Agriculture, hunting, forestry, survey frames are *list-based* obtained from: (i) ad hoc list of units from various sources, for surveys in section B - Fishing; (ii) the latest census list in the case of surveys for sections D - Manufacturing and E - Electricity, gas and water supply; and (iii) administrative business registers for surveys of activities in all nine remaining sections. Taking into account that the agricultural sector is dominated by small informal sector units, the survey frames used in agricultural surveys are *area-based*.

242. Economic surveys for most of the activities are conducted at the *enterprise level*, except for activities in sections A- Agriculture, hunting, forestry, M - Education and N - Health and social work where the unit of observation is the *establishment*. *Local unit* is being used for surveys of section B – Fishing.

5. Coverage and periodicity of economic surveys of formal sector

243. Economic surveys for agricultural and industrial sector activities are conducted annually. *Visits* are the main data collection methods used in the agricultural surveys.

6. Data contents of economic surveys

244. The annual surveys provide the necessary financial variables reflecting income, expenditure and balance sheet position of formal sector units which allows for derivation of value added by activities. Full output details in terms of CPC compatible product classification reflecting output or revenue are collected infrequently through the Industrial Census.

7. Informal sector

245. Informal sector is defined as encompassing the production units for which no bookkeeping records are maintained. Informal sector units are observed through a combination of the following data sources: (i) mixed household-enterprise surveys (mainly the 1-2-3 surveys, conducted in the capital city); (ii) household income and expenditures surveys (two surveys were conducted in 1987 and 2001); and (iii) economic module of the census population. Data about the informal units' total revenues is the only information collected.

8. Supplementary topics

246. DNSI disseminates statistical data at fixed release dates. The main challenges faced in the compilation of basic economic statistics are related to the achievement of the following goals: (i) conducting at least one census at the scale of the whole economy; (ii) devising a strategic plan for the development of statistics; (iii) sensitizing bookkeeping experts to produce complete financial statements that would be of use for the compilation of national accounts; and (iv) producing statistics that comply with the requirements of the international standards (i.e. producing national accounts according to the 1993 SNA).

Mauritius

1. General information

247. The Statistics Act No. 38 of the 30th of November 2000 defines the legal framework for the production and dissemination of official statistics in Mauritius. Under this Act a Department of Government known as the Central Statistics Office (CSO) is the central depository of all official statistics produced in the country. CSO mission is to provide coherent, timely, relevant and reliable statistics, consistent with international principles and standards, for effective policy and decision-making, and for monitoring national development processes.

248. The CSO falls under the Ministry of Finance and Economic Empowerment (MOFEE) and has decentralized its activities through the creation of statistical units in many Government Ministries and Departments. These units are staffed with CSO officers servicing and advising the Ministries in all statistical matters.

2. Institutional arrangements

249. CSO is the official organization responsible for the collection, compilation, analysis and dissemination of all official statistical data relating to all aspects of the economic and social activities of the country.

250. However, some statistics do not fall under the purview of CSO. Among them are the monetary and banking statistics and balance of payments which fall under the responsibility of Bank of Mauritius (BOM). The latter generates the statistics mostly from data collected for supervision purposes. Similarly, the Financial Services Commission (FSC) as regulatory body for financial activities other than banking generates some statistics on financial services.

251. Because of restriction on disclosure of individual information, CSO, BOM and FSC cannot release or share individual data. Sharing of data is therefore done at some level at aggregation. However, CSO may, under certain conditions, make an agreement with any Ministry or Government Department, local authority or statutory body to collect data jointly and to share the information with the other parties.

3. Economic Census

252. The main economic census carried out by the CSO is the Census of Economic Activities (CEA). The Census is conducted every five years and covers all economic activities, except agriculture, and has as primary objective the collection of detailed information on the operating characteristics and structure of these economic activities. The data are used as benchmark for the computation of annual national accounts estimates. The unit of enquiry is the production unit; it can be an establishment or an itinerant unit. The CEA is conducted in two phases:

(a) *Phase I* covers a representative sample of “small” establishments (i.e. with less than 10 workers), and itinerants units (about 3,500 out of a total of 95,000 in 2007). Data collection is done by interview method, and is spread evenly over the reference year to take care of seasonality.

(b) *Phase II* covers all large establishments with 10 or more workers (around 2,500 in 2007). Data are collected by mail questionnaires.

253. The CEA collects detailed data on employment, labor cost, production, intermediate consumption, investment, as well as some information on ICT usage. The main advantage of the CEA is the significant amount of information on the operating characteristics and structure of all production units that allow for the construction of Input-Output tables.

254. The main problems and challenges of the CEA are related to: (i) high costs in terms of financial and human resources; (ii) high respondents’ burden; and (iii) lack of timeliness: results are often available some two years after the reference year.

4. Economic surveys of the formal sector: survey frames

255. A Central Business Register was established in 1990's on the basis of licenses issued by local authorities and registrations with professional councils. The main objective of the register was to provide frames for all surveys of establishments conducted by CSO. However, due to lack of expertise, the register did not attain its objectives and generates mainly statistics on licenses and registrations. Thus, other sources of information are tapped to have more reliable frames for censuses and surveys of establishments, resulting in a multiplicity of frames (list of establishments from the Housing Census, list of "large" establishments from Labor Unit, list of export enterprises from Ministry of Industry, etc.).

256. Currently, the available database consists of around 95,000 non-agricultural activity units engaged in about 300 different types of economic activities. Economic activities conducted without a license or registration, are excluded. Also not covered are paid domestic services to households, and illegal and criminal activities.

257. With the coming into force of the Business Registration Act in October 2006, any individual or enterprise carrying out a business in Mauritius is allocated a unique business number on registration with the relevant authority. This database is now being used as a basis for a register of businesses operating in Mauritius which will serve as frame for censuses/surveys of businesses.

5-6. Economic surveys of the formal sector: coverage, periodicity and data contents

258. During the intercensal years, annual surveys on receipt and expenditure covering the "large" establishments are conducted. For some industry groups, a complete coverage is done while in others, a sample including the main drivers is covered. The data requested are less detailed than the quinquennial CEA. Quarterly surveys among large establishments are also conducted for the computation of quarterly value added. The quarterly surveys cover a sample of establishments, mostly the main drivers.

259. For intercensal estimates of value added, annual and quarterly survey data are used in conjunction with administrative data and CEA benchmarks. In some cases, administrative data is the main source of information. In others, benchmark estimates are extrapolated using relevant indicators of growth and price, the latter method being used mostly for "small" production units. Forecast/provisional figures are usually worked out by extrapolation based on expected growth and prices. Final estimates are computed as given below:

Agriculture

260. Apart from sugar and tea, agricultural activities are performed mainly by small planters, breeders and fishermen who do not keep proper records of their transactions. Because of the lack of proper accounts, a variety of methods, based essentially on the commodity flow approach, is used to estimate gross output. Thus, gross output is mostly

based on statistics on quantities produced obtained from various administrative sources and agricultural surveys. Value added is then estimated by applying the appropriate ratios. Backyard production estimated on the basis of consumption data obtained at Household Budget Surveys is also included.

Mining and quarrying

261. Estimates for this sector (salt production and stone quarrying) are computed based on annual survey data.

Manufacturing

262. Estimates for this sector are based on annual report and financial statements of the sugar industry, surveys conducted by CSO, VAT data, exports data, and excise data.

Electricity gas and water supply

263. Estimates for Electricity, gas and water supply are computed on annual survey data.

Construction

264. Estimates for this sector are computed using investment estimates on buildings and other construction works as basis. The latter is worked out taking into consideration building permits and cost of construction obtained from the five-yearly CEA updated annually with the price index for residential building, investment data by the private and parastatal bodies obtained from surveys, and government capital expenditure on construction works. Value added is calculated by applying benchmark ratio from the CEA. Repair and maintenance of buildings are also included.

Distributive Trade

265. The estimates of turnover in retail and wholesale trade are worked out using the commodity approach based on imports and local production data, and applying appropriate rates of margins obtained from the CEA. Value added is calculated by applying benchmark ratio from the CEA.

Hotels and restaurants

266. Estimates are worked out based on a tourist component, and a local component comprising expenditure of Mauritians in hotels, restaurants, small bars, canteens and on catering. For the local component, the CEA benchmark data are updated using annual growth in number of households and indicators of price changes of bars and restaurants. For the tourist component, tourist earnings obtained from the Central Bank is used to calculate tourist spending in hotels and restaurants. Technical ratios of benchmark CEA are applied to get estimates of value added.

Transport, storage and communications

267. Estimates for large establishments are made on the basis of annual surveys. Estimates for small units (taxis, lorries, buses, etc.) are based on benchmark data of the CEA updated by increases in the number of licenses and appropriate prices.

Financial intermediation

268. Value added for the financial institutions is derived from annual surveys of banks and other financial institutions, statistics from supervisory bodies, and accounts deposited at the Registrar of Companies.

Real estate, renting

269. Imputed rent of owner occupied dwellings is calculated based on the stock of dwellings from the decennial Housing Census updated annually with building permits, and rent obtained from quarterly Rent Survey conducted by this office. The rent in respect of non-residential buildings is also included, the latter being obtained using CEA benchmarks and information from the returns of establishments surveyed by the office.

270. Estimates of large establishments involved in business services are made using annual survey data, accounts deposited at the Registrar of Companies, and VAT database. For small establishments, benchmark data collected at the CEA are extrapolated using various indicators.

Education

271. The output of private secondary institutions is estimated on the basis of returns available at the relevant private secondary schools authority. Benchmark ratios worked out from the CEA, supplemented with data on enrolment and school fees are used to estimate output of other private educational institutions. Output for public education is obtained from Government accounts.

Health

272. Estimates for private health clinics are computed using survey data, while estimation of the output of private medical practitioners is made based on CEA results updated with the number of practitioners and medical fees. Output for public health services is obtained from Government accounts.

Other services

273. The estimates of other services are based on survey data, VAT data, or benchmark data of the CEA updated with suitable indicators.

Use of administrative data

274. Extensive use is made of VAT data, particularly for the quarterly estimates. Other administrative data include: external trade data from Customs Department, building permits from local authorities, companies accounts deposited at the Registrar of companies, production data from Excise Department, and tourist earnings from the Central Bank.

275. The table below gives an indication of the various sources of data used by industry:

| Industry | 5-yearly Census of Economic Activities | Survey | | | | Administra tive data |
|-----------------------------------|---|-------------|------------------|-------------|----------|-------------------------|
| | | Annual | Coverage | Quarterly | Coverage | |
| Agriculture | Not covered | v | Sample | v | Sample | v |
| Mining and quarrying | v | v | Complete | v | Complete | v |
| Manufacturing | v | v | Sample | Not covered | - | v |
| Electricity, gas and water | v | v | Complete | v | Sample | v |
| Construction | v | v | Sample | Not covered | - | v |
| Wholesale and retail trade | v | Not covered | - | Not covered | - | v |
| Hotels and restaurants | v | Not covered | - | Not covered | - | v |
| Transport and Communications | v | v | Complete (large) | v | Sample | v |
| Financial Intermediation | v | v | Complete (large) | v | Sample | v |
| Real estate and Business Services | v | v | Sample | Not covered | - | v |
| Other Services | v | v | Complete (large) | Not covered | - | v |

7. Informal sector

276. The estimates of value added by industry include the informal sector. The informal sector is indirectly captured through the computation of supply and use tables for the census year when data from various sources (CEA, External trade statistics, Local production, Household Budget Survey) are integrated. As such, activities of the informal sector are included in GDP estimates, but are not isolated.

8. Supplementary topics

Data dissemination

277. The CSO disseminates its data through the following publications:

- (a) *Digest of Statistics*: these are annual publications meant to bring together in a single volume all data pertaining to a given subject matter;
- (b) *Economic and Social Indicators*: these are mostly quarterly publications, designed to rapidly disseminate the main statistical data pending the publication of the detailed digest or reports;
- (c) *Ad hoc reports*: these reports follow mainly the completion of censuses and surveys;
- (d) *Mauritius in Figures*: This is an annual publication which presents the main statistics in a pocket size format.

278. Hard copies of these publications are distributed free of charge to Ministries and government departments. For the public, they are on sale at the office. However, all are available free of charge on the CSO website. A detailed description of CSO activities appears in the publication “*A Guide to the Central Statistics Office*” which is also available on CSO website. Apart from these publications, the office attends to several requests coming from national and international organizations, students and the public in general.

279. Annual estimates of National Accounts in aggregated forms are released on a quarterly basis in the issue of “*Economic and Social Indicators*”. A first forecast is made at the beginning of the year and is revised every quarter when more up-to-date data become available. Final estimates are available some 18 months after the end of the reference year. Quarterly estimates are published in another issue of the *Economic and Social Indicators*, published three months after the end of the reference quarter. Data are usually updated in subsequent issues when more complete data are available. More detailed statistics are published in an annual *Digest of National Accounts* which includes a brief methodology, some 18 months after the end of the reference year.

User needs of economic statistics and their satisfaction

280. The main users of economic statistics include MOFEE, Bank of Mauritius, policy makers, researchers, funding agencies, and regional and international organizations.

281. Meetings with main data users provide opportunities to get feedback on published data as well as on future needs. User surveys are also conducted.

282. Following the above, the frequency of Economic and Social Indicators on National Accounts was increased from twice to four times a year, while some work on emerging sectors of the economy has started and some estimates published.

Problems and difficulties encountered

283. Main problems and difficulties encountered by Mauritius in the compilation of economic statistics include:

- (a) *Economic surveys*: Low response rate and the lack of timeliness of responses to the economic surveys. This is mostly explained by the increasing number of surveys conducted by CSO and other institutions, and the amount of information requested;
- (b) *Survey frame*: Lack of a good survey frame;
- (c) *Use of administrative data sources*: Administrative data are usually collected for registration, control, supervision, and tax purposes and are not intended for statistical purposes so that coverage, unit of enquiry, definitions and classifications used are not always in line with those of CSO. The presence of CSO staff in those departments enables some harmonization. ;

Morocco

1. General information

284. The Statistical Law No. 370-67 of 5 August 1968 defines the legal framework for the production and dissemination of official statistics in the country. The Law has a specific clause on the professional confidentiality which ensures that individual data collected for official statistical compilation remains strictly confidential. The National Statistical Office (Direction de la Statistique (DS)) which is under the supervision of the High Commission of Planning has prepared a new Statistical Law amending the existing one. The new Law will be promulgated in the near future. The office has prepared also two Decrees with respect to the establishment and maintenance of a statistical business register with unique identification number of units from the existing administrative records on businesses (Social security, Tax, Trade registers, etc.).

285. The main functions of the office include among others: (i) promotion and strengthening the national statistical system of which the DS is the central body; (ii) organization and conduct of surveys, censuses and analytical socio-economic and demographic studies; (iii) collection and coordination of all official statistics produced by the national statistical system, and organization, processing, analysis and dissemination of these statistics by using information technologies; and (iv) implementation, analysis and monitoring of development socio-economic indicators.

286. The work on the compilation of economic statistics is organized by activity and type of surveys in one of the four divisions of the statistical office. These divisions are:

- (a) *General Statistics Division* which includes the following four units: administrative collection, databases, information supply, general publications;

- (b) *Economic Censuses and Business Statistics Division* which includes the following four units: economic censuses and the business register, business surveys, surveys of non-profit institutions, and classifications and fiscal statistics;
- (c) *Household Surveys Division* which includes the following five units: labor force surveys, socio-economic surveys, informal sector surveys, social indicators, and sampling frames and sampling activities;
- (d) *Population Census and Civil Registration Division* which include the following three units: population census, census data analysis, and methodology and logistics.

2. Institutional arrangements

287. The economic statistics programme of Morocco covers 11 of the 14 ISIC sections listed in the questionnaire. Three sections - E - Electricity, gas and water supply, J - Financial intermediation and M - Education are not yet included in the programme. Economic statistics data for agricultural and industrial activities in sections A - Agriculture, hunting, forestry, B - Fishing, C - Mining and quarrying and D - Manufacturing respectively as well as for the activities in sections N - Health and social work and O - Other community, social and personal services activities are collected and compiled by the relevant line ministries or specialized agencies. The responsibility for economic statistics on the remaining 5 sections - F - Construction, G - Wholesale and retail trade, H - Hotels and restaurants, I - Transport, storage and communications and K - Real estate, renting, rests with the National Statistical Office.

288. Economic statistics on activities in sections B - Fishing and C - Mining and quarrying are compiled annually by the General Statistics Division from administrative data. Also, an infrequent sample survey is conducted every five years by the DS as part of the structural surveys programme. This survey covers all production sectors, as opposed to the annual survey of industrial enterprises conducted by the Ministry of Industry, or to the survey of Agricultural farms conducted by the Ministry of Agriculture.

3. Economic Census

289. The last economic census in Morocco was carried out in 2001/2002. It was conducted on an economy-wide scale and covered units of the informal sector. No administrative data was used to supplement the direct enumeration in the census neither a threshold was applied with respect to units' inclusion in the population to be completely enumerated. The next economic census is planned for 2010.

4. Economic surveys of the formal sector: survey frames

290. DS maintains a statistical business register which is not yet official in legal terms so as to impose to businesses the use of a unique identifying number in their

communication with the statistical office. This unofficial statistical register is updated annually on the basis of information obtained from annual surveys and Social Security records.

291. Two main classifications are used for the compilation of basic economic statistics: (i) a national classification for economic activities compatible with ISIC, Rev.3; and (ii) a non official adapted version of CPC for products.

292. Conducted economic surveys for the formal sector units in Morocco use *list-based* frames in all sections except in section A - Agriculture, hunting, forestry where the frame is *area-based*. *List-based* frames are derived from the latest census list in combination with ad hoc lists composed from various sources and the statistical business register. Activities of section J - Financial intermediation are not covered by the regular annual survey programme; rather statistics are compiled from the reports provided by businesses about their activities. Economic surveys are conducted at the *enterprise* level for all activities except for Agriculture where the local farm is the unit surveyed.

5. Economic surveys of the formal sector: coverage and periodicity

293. The economic surveys programme for the formal sector is based mainly on annual surveys for all activities except for section J - Financial intermediation which is solely based on administrative data, i.e. the reports of units about their activities. An annual survey on enterprises in construction, public works, trade and services has been initiated in 2005 and it is anticipated to be strengthened in the future. Regarding infra-annual surveys, two quarterly surveys are carried out for manufacturing and construction activities. Also, quarterly and monthly production surveys are conducted by the Statistical Indices section for the purpose of Index of Industrial Production compilation. The same section is responsible for the compilation of some other indices, cost of living index being the most important among them. Administrative data is also used as a supplement to the direct enumeration in conducted surveys for activities in sections F - Construction, G - Wholesale and retail trade, H - Hotels and restaurants, I - Transport, storage and communications, K - Real estate, renting, M - Education, N - Health and social work and O - Other community, social and personal services activities. *Visits* are the main data collection approaches for the conducted surveys.

6. Data contents of economic surveys

294. Two categories of data items are collected by the current annual economic surveys in Morocco: (i) a set of financial variables reflecting income, expenditure and balance sheet position of units which allows for derivation of value added by activities; and (ii) full output details in terms CPC compatible product classification which allow for the compilation of Indices of Industrial Production.

7. Informal sector

295. Two surveys, namely the informal sector enterprise survey and the mixed households-enterprise survey, in addition to the economic censuses provide information about the production activities of informal sector units in Morocco. The last informal sector enterprise survey for non-organized urban micro-businesses was conducted in 1986, while the two mixed households-enterprise surveys were conducted in 1999/2000 and 2006/2007 respectively. Sufficient number of data items about the production activity of informal sector units was collected. They include the following main categories: (i) total revenues and expenditures; (ii) some details on produced goods and services; (iii) total employment; and (iv) gross fixed capital formation.

8. Supplementary topics

296. The economic statistics in Morocco is generally based on the collection of real data by interviewers which are later confirmed by the results of representative sample surveys by economic activities. Quality assessment policy has not been yet introduced, however consistency checks, validations and various control procedures are performed at the most detailed level before data from annual, infra-annual or structural surveys are published.

297. Basic economic statistics data are published on a regular basis to the general public, accompanied with corresponding metadata, and if required, with a revision policy document. Main users of economic statistics in the country include government institutions, agencies, academia and media.

298. The compilation of economic statistics in Morocco is facing several challenges. The first challenge concerns the lack of a formal legal basis (decrees or law) which guarantees the access of DS to information from administrative sources in order to broaden the scope of statistical database on businesses and facilitate its update. The lack of a legal basis poses a real challenge also for the establishment of a statistical business register with a unique identification number for each enterprise. Conduct of comprehensive surveys is not possible in the absence of a statistical business register and up to date information about all enterprises, irrespective whether they are large, medium, small or very small units. The second challenge is the lack of cooperation from enterprises, especially large ones, in responding to statistical survey questionnaires. This issue will be tackled by setting up a political awareness and partnership focused on businesses.

Mozambique

1. General information

299. The Statistical Law No. 07/96 of 5 July 1996 established the National Statistical System of Mozambique. The National Statistics Institute (INE) was created by the presidential decree No. 09/96 of 28 August 1996 with a mandate to collect, process, analyze and disseminate official statistics. The Economic Statistics Branch of INE is headed by a Vice-President and has two Divisions - the National Accounts Division and

the Statistics of Enterprises and Establishments Division. Each of these Divisions is headed by a Director.

2. Institutional arrangements

300. The economic statistics programme of Mozambique covers all 14 ISIC sections listed in the questionnaire. In general, each line ministry produces statistics in its own field but the official data by economic sectors are produced by INE. In these cases the data provided by line ministries are considered administrative information. The economic statistics data about financial institutions are produced solely by the Central Bank. INE is exclusively responsible for the compilation of economic statistics of the following eight sections: D - Manufacturing, E - Electricity, gas and water supply, F - Construction, G - Distributive trade, H - Hotels and restaurants, I - Transport, storage and communications, and K - Real estate, renting, as for two of them, namely sections H and I, INE cooperates with the respective line ministry. Compilation of economic statistics about the remaining sections is carried out by the line ministries and specialized agencies.

3. Economic Census

301. INE conducted a Business census in 2002 where formal units in all ISIC sections except P - Private households with employed persons were covered. Administrative data were used to supplement direct enumeration in this census. The Ministry of Fishing did a census between January and June 2007. The agricultural censuses are conducted at approximately 10 year intervals. The last one was in 2000 and the next census is planned for 2009. Censuses in sections A - Agriculture, hunting, forestry and B - Fishing covered units of the informal sector.

4. Economic surveys of the formal sector: survey frames

302. The survey frames used for conducted economic surveys of formal sector units are *list-based*, derived from three main sources: the Business census list, existing administrative business registers and the statistical business register. Surveys are conducted at the enterprise and/or establishment level.

5. Economic surveys of the formal sector: coverage and periodicity

303. The economic statistics programme for the formal sector is based on a combination of annual and monthly surveys. Units that belong to Public administration are not included in it. Data for section E - Electricity, gas and water supply are collected using reports of companies, as their number is very small - about five in total for the whole section. Both types of surveys use thresholds with respect to the units' inclusion in the sample. No administrative data were used for those units below the threshold. are the main data collection method used.

6. Data contents of economic surveys

304. Two categories of data items are collected by the current annual economic surveys: (i) a set of financial variables reflecting income, expenditure and balance sheet position of units which allows for derivation of value added by activity; and (ii) a full output details in terms of CPC compatible product classification. Limited set of production details are collected monthly for the compilation of various indices.

7. Informal sector

305. There is no a separate programme for the informal sector. Information about the informal sector units in agriculture and fishing is available from the conducted censuses (see para. 281).

8. Supplementary topics

306. Economic Statistics data are disseminated to the general public at fixed released dates. Metadata and quality reports are disseminated along with the published data. INE conducts user satisfaction surveys annually.

Namibia

1. General information

307. Prior to the independence, no statistical organization existed in Namibia. A local section of the South African Statistical Services (SASS) was responsible for the collection of statistics as required by the Office in Pretoria. After independence, the Central Statistical Office (CSO), now the Central Statistics Bureau (CSB) was formally established within the National Planning Commission (NPC), charged with the responsibility of producing official statistics in Namibia.

308. The Statistical Act No. 66 of 1976 defines the rights and responsibilities of CSB whose mission is to: (i) produce and make publicly available objective, relevant, comparable, reliable, timely and easily accessible official statistics in all subject-matter areas of national interest and relevance; and (ii) coordinate and oversee the production of all official statistics in Namibia.

309. The legislation in the field of statistics is however outdated and requires amendments in order to bring it in line with the current form of the constitution, other laws and regulations. To this end, a Statistics Policy has been drafted to serve as a basis for the amendment of the Act, and it is currently with the NPC Statistics Advisory Committee for scrutiny before onward submission to the Commission for approval.

310. The CSB is headed by a Government Statistician assisted by a Director, and with total staff of 57. Since the office is not completely staffed, the CSB relies, on some of its work, on casual employees. The CSB is divided into two divisions: the Demographic and Social Surveys and Cartography Division; and the Economic Statistics Division. The

Economic Statistics Division has three sub-divisions: Agriculture and Industrial Statistics, Price and Trade Statistics, and National Accounts.

- (a) *Agricultural and Industrial Statistics* provides data relating to the communal (subsistence) agriculture through the Annual Agricultural Surveys conducted by the CSB in collaboration with the Directorate of Planning in the Ministry of Agriculture, Water and Rural Development;
- (b) *Price and Trade Statistics* is responsible for the publication of a monthly bulletin of Consumer Prices Indices and Inflation. It also provides data on international trade, i.e. imports and exports of merchandise. The latter statistics supports the government policy on openness aiming to develop, promote and diversify the country's exports, to expand and consolidate market shares of existing markets and to penetrate new markets;
- (c) The *National Accounts* subdivision is responsible for the provision of statistical data required for socio-economic plan formulation, policy making, and decision taking, for monitoring and evaluation of economic performance and development.

2. Institutional arrangements

311. The economic statistics data compilation programme of Namibia covers the 14 ISIC sections listed in the questionnaire and the CSB is primarily responsible for the production of economic statistics data for all these activities. However, statistics for sections A - Agriculture, hunting, forestry, B - Fishing, C - Mining and quarrying, D - Manufacturing, H - Hotels and restaurants, M - Education and N - Health and social work, are compiled concurrently with line ministries and/or other specialized agencies. CSB cooperates with the Central Bank for production of data about activities in section J - Financial intermediation.

3. Economic Census

312. Namibia conducts censuses of agricultural and industrial activities in the following sections of ISIC - A - Agriculture, hunting, forestry; D - Manufacturing; and E - Electricity, gas and water supply.

313. The last Agricultural census was conducted in 2004/2005. Thresholds have been used in this census with respect to units' inclusion in population to be completely enumerated, mainly on variables such as land size and number of livestock. The last economic census for Manufacturing was conducted in 2000 and did not cover units of the informal sector. Thresholds have been used in this census with respect to units' inclusion in the population to be completely enumerated, mainly on the variable *number of employees*. Due to the small number of units classified in section E - Electricity, gas and water supply, the annual survey provides nearly census coverage. The last such survey was conducted in 2006. For all conducted censuses, no administrative data has been used to supplement the direct enumeration.

4. Economic surveys of the formal sector: survey frames

314. The survey frames used for the conducted economic surveys of formal sector units in Namibia are *list-based*, except for sections A - Agriculture, hunting and forestry, where the frame is *area-based*. The *list-based* survey frames are derived from:

- (a) The latest census list for activities in section D - Manufacturing;
- (b) Ad hoc lists of units composed from various sources for activities in sections F - Construction, G - Wholesale and retail trade, I - Transport, storage and communications, K - Real estate, renting and O - Other community, social and personal services activities;
- (c) Administrative business registers for activities in sections B - Fishing, C - Mining and quarrying, E - Electricity, gas and water supply, H - Hotels and restaurants, J - Financial intermediation, M - Education and N - Health and social work.

315. Economic surveys of the formal sector are conducted at the *enterprise* level for all sections of ISIC, except for section A - Agriculture, hunting and forestry, where the *local unit* is surveyed.

316. At present, CSB does not have a statistical business register, but there is a plan to establish one in the future.

5. Economic surveys of the formal sector: coverage and periodicity

317. For majority of activities, the economic surveys of the formal sector units are conducted with both annual and quarterly periodicity, except for activities in sections K - Real estate, renting, M - Education and O - Other community, social and personal services activities, for which surveys are only annual.

318. As indicated in para. 293, thresholds in terms of land size and number of livestock are applied for agricultural surveys only. Surveys data are mainly collected through *mail dispatch* except for activities in section A for which *visits* are the main data collection method used.

6. Data contents of economic surveys

319. The annual economic surveys provide a full set of financial variables reflecting income, expenditure and balance sheet position which allows for calculation of value added by activity. Output details in terms of CPC product classification are collected annually and quarterly. Collected quarterly output data allow compilation of some production indices.

7. Informal sector

320. Data about informal sector units in Namibia in overall are scarce. Some information on their production activity is captured through household income and expenditures surveys.

8. Supplementary topics

321. Namibia disseminates economic statistics data to the general public on fixed release dates. Whenever possible, metadata and revision policy documents are made available to users along with the published statistics. Data quality reports are not yet prepared and disseminated; neither a user satisfaction survey is conducted.

322. Lack of adequate human resources is recognized as the most important factor impeding the compilation of basic economic statistics in Namibia.

Niger

1. General information

323. In 1959, when Niger became an independent country, the “Service de la Statistique et de la Mécanographie” was established as part of the Ministry of Economics and Finance. The Service assumed the responsibility for producing statistical information and over the years has gone through a number of structural evolutions:

- (a) From 1962 to 1965, the Service was part of the Commissariat Général du Plan, under the Presidency of the Republic;
- (b) From 1965 to 1972, the Service administratively was attached to the Commissariat Général au Développement;
- (c) From 1972 to 1974, the Service was under the ministry of Development and Cooperation;
- (d) The Decree 75-107 PCMS of 4 July 1975 on the organization of the Ministry of Development and Cooperation renamed the Service into “Direction de la Statistique et des Comptes Nationaux”;
- (e) In March 1980, the Statistical Directorate was split up into two directorates, one called “Direction de la Statistique et des Comptes Nationaux” and the other called “Direction de l’Informatique”;
- (f) In 1984, the two directorates were merged into one directorate called “Direction de la Statistique et des Comptes Nationaux”;

- (g) In 1989, the Directorate was split again into a “Direction de l’Informatique” and a “Direction de la Statistique et la Démographie”;
- (h) In March 1993, the “Direction de la Statistique et la Démographie” was renamed into the “Direction de la Statistique et des Comptes Nationaux”;
- (i) Finally, since 20 March 2004, the Statistical Directorate became the “Institut National de la Statistique (INS)” which has a status of a “Direction Générale” headed by a Director General and a Deputy General Secretary.

324. The Statistical Law No. 2004-011 of 30 March 2004 serves as a legal basis for the organization of statistical activity in Niger and defines the rights and responsibilities of National Statistical Institute (INS). The Law covers all aspect of statistical legislation including issues of confidentiality and access to administrative data sources.

325. The Statistical Law has empowered INS to: (i) coordinate the activities of the National Statistical System (NSS); (ii) produce and disseminate statistical data that comply to the existing international statistical standards; (iii) centralize, store, maintain and disseminate data files produced within the NSS; (iv) develop methodologies and undertake applied research in the areas of collection, compilation, analysis and dissemination of statistical data; and (v) promote training for professional staff within the NSS.

326. INS is organized into five Directorates: the Directorate of Coordination and Statistical Development; the Administrative and Financial Directorate, the Directorate of Economic Statistics and Studies; the Directorate of Surveys and Censuses; the Directorate of Demographic and Social Statistics and Studies. The economic statistics work is undertaken by the Directorate of Economic Statistics and Studies. INS has also two attached Divisions: the Training Center and the Division of the Information Technology.

2. Institutional arrangements

327. The economic statistics data compilation programme in Niger covers all 14 ISIC sections listed the questionnaire. Statistics with respect to sections A - Agriculture, hunting and forestry and B - Fishing, are undertaken by line ministries or specialized agencies, while INS is responsible for compilation of economic statistics data for the remaining twelve sections.

3. Economic Census

328. Agriculture and cattle farming sector is the only sector in Niger covered by a census programme. The last census was conducted in 2005 by the Ministry of Agricultural Development, with the help of external partners including the Food and Agriculture Organization (FAO) of the United Nations. A threshold was not applied in the census, therefore all agricultural units, including those belonging to the informal

sector were covered. Available administrative data were used to supplement the direct enumeration.

4. Economic surveys of the formal sector: survey frames

329. INS is currently in the process of developing a full-fledged statistical business register which will provide the necessary frame for the statistical sample survey programme of formal sector units. The current version of the register is updated on an annual basis. Two main classifications are used for the compilation of basic economic statistics: the NAEMA classification of economic activities and the NOPEMA products classification. Both classifications are implemented by AFRISTAT member countries and are compatible with ISIC and CPC respectively. Surveys of the formal sector are conducted at the *enterprise* level for all ISIC activities included in the economic statistics programme.

5. Economic surveys of the formal sector: coverage and periodicity

330. The economic surveys programme for the formal sector is based on two main surveys: the National Accounts Survey which is conducted on an annual basis and covers activities of all 14 ISIC sections listed in the questionnaire; and the Conjuncture Survey which is a survey on the current economic situation that is carried out on a quarterly basis. The quarterly survey covers only industrial activities in sections C - Mining and quarrying, D - Manufacturing, and E - Electricity, gas and water supply. To a lesser extent, the programme encompasses also other surveys conducted on an infrequent basis.

331. For conducted two surveys, administrative data is used to supplement the direct enumeration, but no threshold is applied with respect to the units' inclusion in the sample. *Mail dispatch* and follow-ups by *visits* are the main data collection methods used for these surveys.

6. Data contents of economic surveys

332. The INS annual and infrequent economic surveys provide the most detailed sets of output details in terms of CPC product classification and of financial variables reflecting income, expenditure and balance sheet position which allows for calculation of value added. The quarterly economic survey collects only a reduced number of financial variables for compilation of some short-term statistics about the industrial sector.

7. Informal sector

333. According to the national definition, the informal sector in Niger encompasses production units which are non-registered and/or do not keep formal accounting records. Information about those units is collected mainly on an annual basis, through a combination of surveys, namely: (i) Mixed household-enterprise surveys; (ii) Informal sector enterprise surveys; (iii) Households income and expenditure surveys; and (iv)

Administrative data. The mixed household-enterprise surveys are based on the 1-2-3 system of surveys recommended by AFRISTAT to its member countries.

8. Supplementary topics

334. Economic statistics data are disseminated to the general public on a regular basis through paper publications, CD ROM, official website of Statistical Institute, and databanks. The main users of these data include government institutions/agencies, academia, and the media, however, researchers must give assurance to INS that no individual data would be published and, in addition, to keep INS informed about all manipulations performed on the data. Revision policy document is disseminated to the users and a separate chapter in the National Accounts publication is devoted to the revision of the accounts. No user satisfaction survey has been conducted.

335. INS has established a quality review policy for its basic economic statistics through the subscription of the country to the General Data Dissemination System (GDDS) and Reports on Observance of Standards and Codes (ROSCs) of the IMF. Metadata and data quality reports are disseminated through the IMF website.

336. The most important factors impeding compilation of basic economic statistics in Niger are related to the lack of adequate resources (human, material and financial), the poor data collection process, and the high turnover (mobility) of the personnel.

Nigeria

1. General information

337. Nigeria runs a Federal system of government with three government levels - Federal, State and Local. The statistical system however is decentralized; therefore each level of government runs its own statistical service. At both the Federal and State levels each ministry or parastatal has an independent statistical unit with a local unit for coordination.

338. Prior to 1947, a body responsible for statistical activities in Nigeria was not recognized, although the population census, the most important and oldest statistical exercise in the country, was conducted in 1866 for the municipality of Lagos, based on the Act enacted for this purpose in 1863. Population census and foreign trade statistics were the first official statistics to be developed in Nigeria. In 1947 however, a section of the Department of Customs and Excise was established as the nucleus of a full-fledged Department of Statistics having a status of department (unit of government service then). In 1949, the department was expanded and re-organized on a more permanent basis and a Government Statistician was appointed to head it. In 1960, when ministerial approach to government was adopted, the department was placed under the Federal Office of Statistics (FOS), enjoying the status of an extra-ministerial department. Over the years, changes in the headship of FOS has followed changes in headship of professional cadre

in the Federal civil Service – from Government Statistician in 1949 to Chief Statistician in 1960, Director of Statistics in 1976 and Coordinating Director of Statistics in 1984.

339. During its formative years, FOS restricted its activities to administrative statistics such as foreign trade statistics derived from customs bills of entry. Subsequently, the scope of its activities was widened to include compilation and publication of statistics on internal migration, shipping movement at Nigeria ports, tonnage of cargo carried by rail and sea, etc. In addition, it conducted a number of inquiries into issues such as retail prices, livestock and crop production, household consumption, etc. Most of these inquiries were not based on probability samples. In some cases, only respondents who were willing to participate in an inquiry were approached for interview. The greatest achievement of FOS during this period was the conduct of the 1952/1953 population census. At the creation of the National Population Commission however, FOS ceased to handle matters relating to population census while all its sample surveys become more rigorously designed and national in coverage.

340. FOS was further given a legal backing when the Statistical Act of 1957 was enacted. This Act, which is the first comprehensive legislation on Statistics in Nigeria, empowered the Chief Statistician of the Federation to collect, compile, analyze, and publish statistical information relating to commercial, industrial, agricultural, mining, social, economic and general activities, and conditions of the inhabitants of the Nigerian Federation. It also provided that the Chief Statistician collaborates with relevant departments of Federal, State and Local governments in the collection, compilation, analysis and publication of the statistical records of Government institutions and generally, to organize and coordinate social and economic statistics relating to the Federation. This ordinance was amended in 1979. The role of the then Chief Statistician is today discharged by the Director of the National Bureau of Statistics.

341. In the same vein of legal empowerment of the statistical function, the Civil Service Re-organization Decree No. 43 of 1988 provided for the establishment of many agencies for statistics production on a decentralized and sectoral basis for the three tiers of governments in the country, namely, Federal, States and Local governments. Specifically, it provides for the establishment of the Planning, Research and Statistics Departments (PRSD) in each of the Federal, State Ministries and parastatals as well as the Local Governments. The provisions of the decree have been fully implemented, at these three levels despite staffing problems especially at the Local governments. By that Decree, statistical units were supposed to be established in every government agency as a corporate body of that establishment, thereby relieving the FOS the task of pooling statisticians at the FOS. Under the Decree, the FOS was organized into the following 7 departments and 3 units with a Director General:

- Personnel Management Department;
- Social and Economic Analysis Department;
- Corporate Planning and Technical Co-ordination Department;
- Field Service and Methodology Department;
- Finance and Supply Department;

- Census and Survey Department;
- Computer Management and Information Services Department;
- Legal Services Unit;
- Internal Audit Unit;
- Public Relations/International Unit.

342. The demand for production of economic statistics data in Nigeria has considerably increased in relation to the government efforts for revamping the economy through the initiated economic programmes. The private sector, investors and other users with pressing needs for data have given rise to multiple and sometimes overlapping sectoral agencies involved in data production. This called for development of a national strategy for sound economic management, legal and institutional frameworks. The involvement of many agencies in data production are strong cases for streamlining these agencies and their roles by establishing an effective coordination mechanism at all levels of government where economic and other data are collected. The network and functions of these agencies are getting more complex and therefore there was a strong need to strengthen the necessary legal framework to enable the National Statistical System to achieve its goals and objectives.

343. To address this need, a new National Bureau of Statistics Act was signed into Law on 25 May 2007 by the President and Commander-in-Chief of the Federal Republic of Nigeria. The provisions of the Act are presently at the Ministry of Justice for official publication. The Act established the National Statistical System (NSS) which comprises the following four main components:

- (a) The producers of statistics, including the National Statistical Office as the co-ordination agency of the system, line ministries, public agencies, state statistical agencies and local governments statistical units;
- (b) Data users, including key users such as policy and decision makers;
- (c) Data suppliers, including establishments and households;
- (d) Research and training institutions, including higher education institutions.

344. The objectives of the NSS are to:

- (a) Raise public awareness about the importance and role of statistical information to society;
- (b) Collect, process, analyze and disseminate quality statistical data;
- (c) Promote the use of best practice and international standards in statistical production, management and dissemination;

- (d) Promote the use of statistical data and information at individual, institutional, local government area, state, national and international levels, especially for evidence-based policy design and decision making;
- (e) Build sustainable capacity for the production and use of statistical data and information in the country for planning purposes.

345. The Act established the National Bureau of Statistics (NBS) as an autonomous public authority accountable to the Presidency. NBS is the main national agency responsible for the development and management of official statistics. As such, it is the authoritative source and custodian of official statistics in the country. It exercises professional independence in the way it collects, processes, analyzes, reports and disseminates statistical information, in order to protect and enhance the integrity and impartiality of official statistics.

346. The mandate of NBS is to:

- (a) Coordinate the National Statistical System;
- (b) Advise the Federal, State and Local governments on all matters related to statistical development;
- (c) Develop and promote use of statistical standards and appropriate methodologies in the system;
- (d) Collect, compile, analyze, interpret, publish and disseminate statistical information alone or in collaboration with other agencies, both governmental and non-governmental agencies;
- (e) Develop, maintain a comprehensive national data bank by encouraging units of line ministries and agencies develop their sectoral data bank and forward to the Bureau;
- (f) Provide a focal point of contact with international agencies on statistical matters;
- (g) Carry out all other functions relating to statistics as the Federal Government only assign to the Bureau.

347. The Act covers also the issues of confidentiality of the statistical information. Its article 26 stipulates that “data collected for statistical purposes must be treated as confidential which means that the dissemination of these data shall not permit the identification directly or indirectly of the units concerned and that a prohibition is imposed on data producers against disclosing information of an individual nature obtained in the course of their work.” The issue of confidentiality is strictly adhered to by the NBS. Every staff member is expected to swear to Oath of Secrecy on being employed by the Bureau.

348. The economic statistics programme of NBS is organized in three major divisions: Prices and Trade Statistics, National Accounts, and Economic Censuses and Surveys, the latter division collecting and producing basic economic statistics through censuses and sample surveys. Some basic economic statistics for the informal sector are also generated from the regular household survey programme.

2. Institutional arrangements

349. The NBS economic statistics data compilation programme covers all 14 ISIC sections listed in the questionnaire. Statistics for all but section M – Education are compiled by NBS. A line ministry or a specialized agency participates in the production of economic statistics for activities in sections A - Agriculture, hunting, forestry, B - Fishing, E - Electricity, gas and water supply, I - Transport, storage and communications, N - Health and social work and O – Other community, social and personal service activities. Traditionally, the Central Bank of Nigeria cooperates with NBS for the production of statistics about units in section J - Financial intermediation.

350. The Manufacturers Association of Nigeria (MAN), the National Association of Chambers, Commerce, Industry, Mines and Agriculture (NACCIMA), the National Universities Commission (NUC) and the National Board for Technical Education (NBTE) are among the most important agencies in Nigeria producing statistics about their respective members. The Planning, Research and Statistics Departments (PRSD) in each line ministry, state and local governments; the State Statistical Agencies; the Federal Research Institutions; the Raw Material Research and Development Council; the Nigeria Customs Service; and the Nigeria National Petroleum Cooperation (NNPC) produce administrative data necessary for the functioning of their systems. Some agencies, like the Central Bank of Nigeria and the different PRSDs even undertake survey programmes in collaboration with NBS.

3. Economic census

351. The first National Census of Industries and Businesses (NCIB) was conducted in 1988. The list of units prepared as a result of this census was used as a frame for the subsequent annual surveys in 1990, 1991, 1992, 1993, and 1994. The next economic census conducted in 1996/97 served as a frame for annual survey in 1995. Units, including informal sector units, of all economic activities except Education were covered in this exercise. Thresholds in terms of number of employees and turnover were applied with respect to units' inclusion in the population to be completely enumerated. The practice of using administrative data in the census as a supplement to direct enumeration has not yet been introduced in Nigeria. The next economic census is Nigeria planned for 2008/2009.

4. Economic surveys of the formal sector: survey frames

352. The survey frames for conducted economic surveys of all activities except Education are *list-based* and are derived from the statistical business register established and maintained by NBS. These surveys are conducted at the *establishment* level.

5. Economic surveys of the formal sector: coverage and periodicity

353. Economic surveys are executed by NBS using the system of National Integrated Survey of Establishments (NISE) which encompasses three major categories of surveys under NISE pertaining to basic economic statistics:

- (a) *Quarterly Establishment Surveys*. These surveys, conducted in collaboration with the Central Bank of Nigeria (CBN) have been on-going for years since 2004. In 2005 and 2006 a Collaborative survey was jointly carried out with the Central Bank of Nigeria (CBN) and the National Communications Commission (NCC) for all ISIC sections listed in the questionnaire except section M - Education.
- (b) *Annual Establishment Survey*. The annual survey of establishments was conducted last in Nigeria in 1996 with 1995 as a reference period. It is a comprehensive survey satisfying virtually all economic data needs and indicators for planning and decision making. The scope and coverage of the survey is very wide, spanning across all economic sectors and sub-sectors of ISIC. The survey is designed to cover all business and industrial establishments that employ at least 10 persons, as well as all registered private professional businesses engaged in financial intermediation services, health and social works, real estate, renting and business services, and organized road transport operators employing less than ten 10 persons.
- (c) *Price Statistics Surveys*. Data on prices in Nigeria have been available even prior to the attainment of independence in 1960. They were collected only for a few selected cities and towns in the 1960s up to the early 1970s, but have been produced and made widely available on a more systematic basis since the mid-1970s. A large part of the data on prices and price indices are collected by the NBS, while prices of some specialized commodities are also collected by the Central Bank of Nigeria. Prices and Price Indices Statistics Surveys are generated for all categories of goods on the market. These goods include agricultural products, household goods, transport items (including spare parts), electronics (including computers and their components), selected slaughter animals and average prices of grain and sugar. Price statistics have a wide range of uses and users. They are used in economic planning and monitoring and are also useful to researchers in economic development. Users of price information include Government agencies for national economic development and international investors who want to be adequately informed about local economic conditions before taking decisions.

354. Thresholds with respect to units' inclusion in the sample are applied while conducting annual and quarterly surveys. Administrative data, although not on a regular

basis, are also used to supplement the direct enumeration. *Visits* are the main data collection methods used in conducted surveys.

6. Data contents of economic surveys

355. The NBS quarterly surveys provide the full set of financial variables that reflect the income, expenditure and balance sheet position of establishments which allow for derivation of value added by activities. They further provide the full output details in terms of CPC compatible product classification.

7. Informal sector

356. NBS defines the scope of informal sector in Nigeria as encompassing incorporated enterprises owned by households and employing less than five persons. Units of the informal sector are allocated to various ISIC sections on the basis of their principal activity.

357. The periodicity of conducted surveys for the informal sector varies depending on the type of survey used. Mixed household-enterprises surveys, for example, are conducted annually, while the household income and expenditure survey and the labor force survey, which are components of the General Household Surveys in Nigeria, are conducted every 5 to 10 years. An ad hoc Informal sector survey sponsored by the Central Bank of Nigeria was one conducted in 1999.

358. The data items collected about the production activity of informal sector units include details of produced goods and services and some financial variables related to their expenditures. Employment data are also captured through the above mentioned surveys.

8. Supplementary topics

359. Except for the Consumer Price Index (CPI) data, which are always released every second week of the month, the economic statistics data disseminated by NBS do not have fixed release dates. Economic statistics data are disseminated in various formats – in the form of publications, newsletters, diskettes, CD-ROM and through the NBS website. A National Data Bank (NDB), which is now part of the NBS, has been also established in 1987 with the assistance of UNDP. It was meant to offer database facilities for acquiring, storing, updating, processing and retrieving statistical or other types of data.

360. Metadata dissemination is done in accordance with the IMF's General Data Dissemination System (GDDS). Data quality reports along with revision policy documents are regularly produced and disseminated to users. No user satisfaction survey has been conducted yet; however, a note book is kept at the Dissemination Section, for users to comment on the level of their satisfaction. A user-producer seminar, providing an opportunity for receiving a feedback on users' satisfaction with statistical products, is being held every year.

Problems and challenges

361. The lack of adequate resources (financial, human and technical) and the weak planning and implementation of economic surveys programme (inadequate frames, low response rates, data gaps due to discontinuity in surveys, inadequate supervision and editing, inadequate data capture of questionnaires, etc.) have been identified as the most important impeding factors for the compilation of basic economic statistics in Nigeria. Current survey frames which have been designed and used since 2004 are becoming quickly obsolete due to rapid changes in the economy and would no longer provide reliable data for economic planning and decision making. Significant efforts need to be made including requesting for assistance from donor agencies to build an up-to-date frame. The planned interactions with units from the organized private sector are expected to have a positive impact on NBS economic statistics programme and also to result in improved response rates.

Elements of solution to the problems encountered

362. Regarding the issue of frame, short term measures consisting of conduct of some key economic surveys and access to information of other economic statistics producing agencies, were adopted. Completed and returned to NBS questionnaires in response to the surveys were used to update the existing records in the frame (directory). Access to the records of some other economic statistics producing agencies, such as CBN, was requested and records were compared with those collected by NBS. This proved to be a very useful approach for classifying some of the records into sub-sectors and at product category levels in the case of Manufacturing. NBS frame was considered to be of better quality as it contained an “employment size” characteristic, unlike the frames of other agencies. The endorsed sample frames from different states were also used as an additional measure for improvement of NBS frames.

363. As a long term solution, the Director General/Chief Executive has developed a methodology which removes the burden of updating the frame from headquarters to the states. The field staff will visit the establishments on a regular basis and obtain facts to update the frame. The soft copy with changes will then be sent and pooled at the Economic Surveys and Census Division in Abuja. It is recognized, however, that this approach is resource intensive as it will require investments in desktop computers, motorcycles, and other logistics infrastructure and activities.

364. The Director General has also approved a strategy for handling the problem of high non-response rates to statistical surveys. The strategy promotes the establishment of a continuous dialogue between NBS and respondent units from organized private sector and calls for organization of regular meetings with respondents. Three such meetings have already been held in Kano, Lagos and Port Harcourt. They aimed at sensitizing the private sector establishments and their respective associations on the need to facilitate data gathering and increase the response rate among all categories of establishments. The above mentioned arrangements, if funds are available for their implementation, would

also reduce the growing apathy of respondents, numerous callbacks, and high number of un-analyzable questionnaires.

365. Provision of adequate funding will reduce the problems related to data gaps due to discontinuity of surveys, inadequate supervision, inadequate working materials and resources. Regular and relevant training for field and analytical staff will contribute for increasing the analytical capability of the staff and reducing the problem of un-analyzable questionnaires, poor editing and scrutiny of questionnaires, wrong lodgment of questionnaires, etc.

366. Adequate publicity and advertising is highly necessary for the raise of awareness and the improvement of response rates. In the case of the Quick Employment Generation Survey (QNEG) for which a lot of publicity was made, respondents claimed they saw the advert before the visit of the enumerators and the result gave a 70% response rate. For most of the economic surveys, however, the publicity was not satisfactory.

Senegal

1. General information

367. The National Statistical System (NSS) of Senegal is decentralized with statistical production structures of various forms (national directorates, divisions, services or offices) established at each ministry. Until 2004, different laws and decrees provided the legal basis for the organization of official statistics in Senegal:

- (a) Law No. 66-59 of June 1966 on the coordination of statistical activities and the protection of statistical confidentiality;
- (b) Decree No. 69-406 of March 1969 setting the composition and the operating modes of the Committee for Coordination of Statistical Surveys (COCOES);
- (c) Decree No. 005321 of May 1997 on the creation, organization and operation of the Statistics Committee.

368. These legal documents, however, did not make any provisions for the composition, organization or operation of the National Statistical System as a whole. The NSS existed as a juxtaposition of statistical production structures without functional hierarchical tie, evolving in an inadequate institutional environment. The statistical surveys, limited mainly to public units and often conducted with occasional periodicity, constituted a real obstacle for the efficient operation of the system.

369. A reform process to address these impediments had been initiated in 2004. It concluded with the adoption of a new Statistical Law and the establishment in 2005 of the National Agency for Statistics and Demography (ANSD) as the central body of the NSS. The Law on the organization of the NSS was adopted in July 2004 and covered

various issues including the coordination of statistical data collection, the confidentiality of statistical information, and the obligations of respondents to cooperate for the official statistical inquiries.

370. The general objectives of the reform centered on the establishment of a national statistical system which is capable of meeting new demands for statistical information and providing necessary data for measuring progress towards the Millennium Development Goals (MDG) and preparation of the Poverty Reduction Strategy Paper (PRSP) and the country's Strategy of Fast Economic Growth (SFEG). The specific objectives of the reform included:

- (a) Setting up a legal framework for the efficient functioning of statistical system in the country through update of the existing legislation and rules;
- (b) Creation of a central body of the statistical system capable of driving the reform and coordinating the system;
- (c) Setting up a coherent mechanism for coordination and planning of statistical activities;
- (d) Establishment of a system for management control and training of the National Statistical System staff.

371. To achieve these objectives, a National Strategy for the Development of Statistics (NSDS) was designed based on the principles recommended by the PARIS21 consortium. The implementation of NSDS is ensured through the financing strategy devised as part of the NSDS. The outputs delivered at the end of the different stages of NSDS process will take the form of studies and reports on the analysis, strategies and action plans of the National Statistical System, duly validated by the concerned authorities.

372. According to the new Law, the NSS comprises of three components: the National Council of Statistics, the autonomous National Agency for Statistics and Demography (ANSD), and other statistical production structures, subordinated to various ministerial departments. Besides ANSD, the other most important structures responsible for the production of statistical data in the country are the Direction of Forecast and Economic Studies, the line Ministries, the National Directorate of the Central Bank of West African States (BCEAO) for Senegal, the private institutions like Chambers of Trade and Industry, research and education institutions and the non-governmental organizations.

373. ANSD is an autonomous structure placed under the control of the Ministry of Economics and Finance, and managed by a Council. It is composed of headquarters and regional offices. At regional level ANSD is represented by 11 Regional Services of Statistics and Demography. At the central level (headquarters), it consists of five main directorates:

- Directorate of Economic Statistics and National Accounts (DSECN);

- Directorate of Demographic and Social Statistics (DSDS);
- Directorate of Management of Statistical Information (DMIS);
- Directorate of Financial Administration (DAF);
- The National School of Statistics and Economic Analysis (ENSAE-Senegal)

374. The economic statistics work at ANSD is undertaken by the Directorate of Economic Statistics and National Accounts (DSECN) whose role is to establish the basis for compilation of comprehensive economic statistics and national accounts for the country. It is structured into three Divisions - Economic Statistics Division (DSE), Conjuncture Statistics Division and Division of National Accounts and Analytical Studies.

375. The Division of Economic Statistics comprises of two units - the Business Statistics and Registers Unit and the Sectoral Statistics Unit. The former unit is in charge of the management of the national business register, the follow-up on the demography of enterprises, and the organization and conduct of structural business surveys. The latter unit is responsible for the collection and analysis of economic and sectoral statistics as well as for the coordination of economic statistics production in the NSS.

2. Institutional arrangements

376. The data compilation programme on economic statistics in Senegal covers all 14 ISIC sections listed in the questionnaire. Economic statistics with respect to sections D - Manufacturing, E - Electricity, gas and water supply, F - Construction, G - Wholesale and retail trade, K - Real estate, renting and O - Other community, social and personal services activities are solely compiled by ANSD. ANSD compiles concurrently with the respective line ministry or specialized agency economic statistics for three sections, namely, C - Mining and quarrying, H - Hotels and restaurants and I - Transport, storage and communications. Economic statistics for sections A - Agriculture, hunting, forestry, B - Fishing, M - Education and N - Health and social work are produced entirely by the line ministries or specialized agencies, while the Central Bank is responsible for economic statistics data about units in section J - Financial intermediation.

377. The Statistical and Fiscal Declarations (SFD) of enterprises and the regular statistical surveys, including surveys of the informal sector units, are the main data sources used by ANSD for the compilation of economic statistics. The economic statistics compiled by technical departments of line ministries or agencies, especially for the primary sector, are in physical terms (quantities). ANSD provides the corresponding prices for the further estimation of economic statistics indicators.

3. Economic Census

378. The last agricultural census in Senegal was conducted in 1998 and covered crop production units only. All units, including informal sector units, were enumerated. According to the National Strategy for the Development of Statistics the agricultural census planned for 2009 will cover the first ever census of livestock breeding and

farming units. Industrial census for activities in sections C - Mining and quarrying, D - Manufacturing, E - Electricity, gas and water supply as well as a census for activities in sections H - Hotels and restaurants and I - Transport, storage and communications was conducted in 2007. No threshold was applied with respect to units' inclusion in the total population of units to be completely enumerated; however, these censuses did not cover units of the informal sector. The next round of economic censuses for activities in the above mentioned sections is planned for 2009.

4. Economic surveys of the formal sector: survey frames

379. The survey frames used for the conducted economic surveys of the formal sector units are *list-based* derived mainly from the latest census list and the statistical business register. An exhaustive survey aiming to update the statistical business register is underway. It will be conducted on a two-year basis. Financial statements of businesses in the register will be collected each year and on their basis data for the secondary sector will be extrapolated. At present, the register contains 4300 active business units. The number of registered units has gradually increased since 2004 when there were only 2378 units in the register. Units engaged in activities of sections A - Agriculture, hunting, forestry and B - Fishing, are not covered by the business register as they are considered informal activities.

380. Economic surveys of the formal sector are conducted mainly at the *enterprise* level, especially for activities in sections C - Mining and quarrying, D - manufacturing, E - Electricity, gas and water supply, H - Hotels and restaurants and I - Transport, storage and communications. The National Department of Health Information (SNIS) conducts Demographic and Health Survey (DHS) to cover health and social work units. The last such survey was conducted in 2005. Similarly, the education units are observed by the respective Directorate of Education. For other community, social and personal services activities, a survey, planned for the end of 2007, was expected to update the list of those units in the statistical business register

5. Economic surveys of the formal sector: coverage and periodicity

381. Economic surveys of the formal sector for activities in sections C - Mining and quarrying, D - Manufacturing and E - Electricity, gas and water supply, are conducted with both annual and quarterly periodicities. Annual and infrequent surveys are used for activities in section I - Transport, storage and communications, while activities in the remaining sections F - Construction, M - Education, N - Health and social work and O - Other community, social and personal services activities are observed through economic surveys conducted on an infrequent basis only.

382. Prices of consumer goods and services are observed daily and the Harmonized Index of Consumer Price (HICP) is compiled monthly. Economic statistics for activities in section J - Financial intermediation are produced by the Banking Commission of the West African Monetary Union (Union Monétaire Ouest Africaine (UMOA)). Its annual report describes the current situation for this sector in the eight member countries.

383. Threshold based mainly on the turnover is applied with respect to units' inclusion in the sample surveys of industrial sector, comprising of sections C - Mining and quarrying, D - Manufacturing, E - Electricity, gas and water supply. Administrative data have been used to supplement the direct enumeration in these surveys. For activities in the remaining sections (F, I, M, N and O), no threshold was applied and no administrative data has been used.

384. *Mail dispatch* with follow up by *visits* and/or *telephone* is the main collection method used in conducted economic surveys for activities in sections C - Mining and quarrying, D - Manufacturing, E - Electricity, gas and water supply and O - Other community, social and personal services activities. For activities in sections F - Construction, I - Transport, storage and communications, M - Education and N - Health and social work, *visits* are the main data collection method used.

6. Data contents of economic surveys

385. The annual and quarterly economic surveys in Senegal provide some selected output details in terms of CPC compatible product classification. The quarterly data is collected predominantly for the purpose of compilation of the Industrial Production Index (IPI), while annual data is collected mainly for the primary sector, including Agriculture, Fishing. Financial statements of businesses are also collected annually.

386. Financial variables reflecting income, expenditure and balance sheet position of formal sector units are collected infrequently. Production and operating accounts of the surveyed units are the source for these data. Infrequent surveys such as the Household Survey and the Poverty Monitoring Survey (PMS), allow also for the computation of the final consumption expenditure of households

7. Informal sector

387. Informal sector in Senegal is defined as encompassing production units that have no statistical identification number or formal written accounting statements.

388. Economic surveys for the informal sector are usually conducted on an infrequent basis, and the means of statistical observation used to capture the activities of the informal units are mainly: mixed household-enterprise surveys, household income and expenditure surveys, labor force surveys, economic module of population census, informal sector enterprise surveys, and other surveys on Agricultural and fishing activities.

- (a) Mixed household-enterprise surveys are generally conducted every four years. They are based on the 1-2-3 system of surveys used by AFRISTAT member countries;

- (b) Household income and expenditure surveys and labor force surveys are conducted every two years;
- (c) The economic module of population census keeps track of some variables of interest such as the profession, the domain of activity, etc. The population census is generally conducted every ten years;
- (d) Informal sector enterprise surveys are conducted on a need basis. A new informal sector enterprise survey was planned for 2008;
- (e) Surveys for the monitoring of the agricultural campaign are conducted annually while the surveys on fisheries unloading are conducted monthly.

389. Units of the informal sector have been allocated to various ISIC sections on the basis of their main activity. However, this is done on an irregular basis. The data items collected about the production activity of informal sector units include: (i) some details on produced goods and services (mainly on agricultural, fishing, mining and quarrying, and harvesting products); (ii) total expenditures (household final consumption expenditure); (iii) expenditure details (final consumption by product); and (iv) total employment (from the 1-2-3 system of surveys and the PMS). These data items are generally collected on a two-year basis.

8. Supplementary topics

390. Economic statistics data disseminated by ANSD to the general public have fixed release dates. Since January 2001, Senegal has signed up to the IMF's General Data Dissemination System (GDDS), and intends to adhere to the Special Data Dissemination Standard (SDDS) in the near future (within the next 2-3 years). It has been assessed that the country complies with recommendations of these international standards in terms of the area of application, periodicity and timeliness of dissemination. Metadata (mainly methodological notes) are disseminated along with published data, however, a lot of improvements need to be done in this area. Data quality reports have not been disseminated yet, neither the revision policy documents prepared and user satisfaction surveys conducted.

391. The most important impeding factors for the compilation of economic statistics are related to the lack of adequate resources (human, financial, technical, etc.), the weak coordination between the various bodies of the National statistical System and the inadequacy of many statistical programs proposed by development partners. Very often, these programs are not linked to the national priorities, and are characterize with a lack of a dialogue between users and producers of economic statistics.

Seychelles

1. General information

392. The 1965 Statistical Act defined the legal framework for the compilation and dissemination of official statistics in Seychelles. The Act was reviewed, revised and replaced by a new Act in 2005, which established the National Statistics Bureau (NSB) to replace part of the old Management and Information Systems Division and its functions as a centralized system. Under the new Act, a National Statistics Council has also been established. The Council is made up of the major producers and users of statistics who will provide advice and guidance on the statistical programmes defined by NSB.

393. NSB is an autonomous body whose objectives are fixed by law and its priorities decided by the Chief Executive Officer (CEO) and the Council. Its mission statement is “to assist and encourage informed decision-making, research and discussion within government and the community, by providing a high quality, user-oriented Statistical Service; to actively co-ordinate the statistical activities across government agencies and promote the use of statistical standards.” The major responsibilities of NSB, among others, are to:

- (a) Collect, compile, analyse and publish statistical information relating to the commercial, industrial, financial, social, economic, environmental and general activities and condition of the people;
- (b) Collaborate with departments of Government in the collection, compilation and publication of statistical information, including statistics derived from the activities of those departments;
- (c) Promote the avoidance of duplication in the information collected by departments of government;
- (d) Promote and develop integrated social and economic statistics pertaining to the whole country and coordinate plans for the integration of those statistics.

394. NSB is made of two sections: the Corporate Support Section which is in charge of personnel, administration and information technology matters; and the Statistical Section which comprises four units: Economic Statistics, Trade and Tourism, Employment and Earnings, and Census and Survey.

395. The Economic Statistics unit is responsible for the compilation of national accounts, consumer price index and construction cost index, and production statistics. The national accounts are compiled on an annual basis. GDP at current and constant prices are compiled by production and expenditure approaches. GDP is also compiled by institutional sector.

396. In January 2007, Seychelles embarked on a project to move towards the SNA93 compilation practices and bring Seychelles national accounts in line with international standards. Substantive work was also undertaken on the classification of businesses and the ISIC Rev. 4 was adopted and adapted to suit local requirements. The next phases of

this project are to develop the income accounts and work on the elaboration of a supply and use tables.

397. The CPI is compiled monthly. July 2007 is the new base period. The weights for the items in the basket have been derived from the results of the HBS which was conducted in 2006/2007. The COICOP classification is used for classifying the commodities in the basket.

2. Institutional arrangements

398. The economic statistics programme of Seychelles covers all but one ISIC section listed in the questionnaire. Activities in section C - Mining and quarrying are the ones that are not covered by the programme. NSB, being responsible for the implementation of the overall economic statistics programme cooperates with the respective line ministries and specialized agencies for compilation of economic statistics about activities in sections A - Agriculture, hunting, forestry, B - Fishing, E - Electricity, gas and water supply, M - Education, N - Health and social work and O - Other community, social and personal services activities, and with the Central Bank regarding economic statistics on section J - Financial intermediation.

3. Economic Census

399. No economic census has been conducted to date in Seychelles. Economic statistics data are generally collected through two main sources: (i) administrative data collected from records of the Tax Office and data provided by the Central Bank for the financial intermediation sector; and (ii) the regular survey programme which targets mainly large firms. Questionnaires are generally sent to selected large firms for which data from the administrative records is either incomplete (missing records, data not in a usable format, etc.) or completely missing. There is no plan for conducting an economic census in the near future.

4. Economic surveys of the formal sector: survey frames

400. Survey frames used in economic surveys of the formal sector are *list-based* frames derived mainly from administrative business registers and a statistical business register. NSB maintains a statistical business register which has been established from a combination of various administrative records obtained from three main sources: financial statements of establishments and enterprises as per the Tax Business Register, the Licensing Authority, and the Social Security.

401. Economic surveys of the formal sector are mainly conducted at the establishment level and/or enterprise level.

5. Economic surveys of the formal sector: coverage and periodicity

402. Basic economic statistics data for the formal sector are mainly compiled from *annual financial statements* of establishments or enterprises provided by the following administrative data sources: (i) Tax Office records; (ii) Central Bank records; (iii) Seychelles Fishing Authority; and (iii) Government Revenue and Expenditure records, mainly for activities in ISIC sections M - Education and N - Health and social work.

403. In cases where administrative data are missing or are not in a usable format, mail questionnaires are sent to the establishment or enterprise which provide the relevant information as requested.

6. Data contents of economic surveys

404. The NSB annual economic surveys programme collects a full set of financial variables reflecting income, expenditure and balance sheet position which allows for derivation of value added. Data about these financial variables are obtained from annual financial statements of establishments or enterprises.

7. Informal sector

405. Economic statistics on the informal sector are covered by NSB economic statistics programme. The means of statistical observation used to capture the activities of informal sector units are mainly: (i) Households income and expenditure surveys; (ii) Labor force surveys; and (iii) Economic module of the census of population.

8. Supplementary topics

406. NSB is a subscriber to the IMF's General Data Dissemination System (GDDS), therefore, an Advanced Release Calendar was drawn up and on its basis the economic statistics data are disseminated to the general public at fixed release dates. Metadata are disseminated on the IMF's DSBB and soon these will be posted on the NSB's website as part of the NSDP. Data quality reports are not yet disseminated; neither is revision policy document prepared. User satisfaction surveys are not conducted yet.

407. The most important impeding factors for the compilation of basic economic statistics are related to: (i) the incomplete data sources; (ii) the low response rates; (iii) the delays in receiving back the completed questionnaires; and (iv) the inadequacy of the data format from administrative records and respondents, which makes it difficult to be directly used in national accounts.

Sierra Leone

1. General information

408. The Statistics Act of 2002 provided the legal framework for the statistical function and its activities in Sierra Leone. The Act established Statistics Sierra Leone

(SSL) as “the central authority for the collection, processing, analysis and dissemination of accurate, clear, relevant, timely and high quality statistical information on social, demographic, economic and financial activities to serve the needs of users, including government and the general public.

409. Under the Act, the mission of SSL is to coordinate, collect, compile, analyze and disseminate high quality and objective official statistics to assist informed decision-making, and discussion within the government, business and the media, as well as the wider national and international community. The statistics produced must be relevant, have integrity and be easily accessible.

410. The Act established the Statistics Sierra Leone Council (SSLC) as the governing body of SSL. The Council provides strategic guidance to the Statistician General in all areas of statistics, in particular in the area of the quality of the statistics series and on strategies of improving data production, and advises the supervising Minister on matters concerning government statistical policy. The Statistical Council has 14 members and meets at least six times a year.

411. The Act defined also the legal obligations on confidentiality and disclosure of information or data obtained for statistical purposes. Its article 20 stipulates that “...no return or other information collected by Statistics Sierra Leone for the purpose of official statistics that relates to an individual, a household, a business, or any other organization shall be disclosed to any unauthorized person ...”. Each staff of SSL on his appointment to any position in the organization receives a copy of the Statistical Act.

412. SSL is steadily evolving into an independent organization at the center of the country’s statistical system. It is mandated to provide an important official statistical service to the government and the wider national and international user community. Possibly the most important and challenging objective is a coordinated and improved national statistical system, which recognizes the important role played by other government statistical units in providing useful statistics.

413. The main responsibilities of SSL include to:

- (a) Review and approve all definitions and classification schemes employed in statistical work with particular reference to issues of labor statistics, gender, disability, regional and similar socio-economic issues in accordance with appropriate national and international standards and classifications;
- (b) Ensure an efficient and comprehensive collection, processing, analysis, documentation and storage of statistical information throughout the country;
- (c) Compile, report and document statistical data as well as maintain libraries or archives of statistical publications and make them accessible to the public;

- (d) Impartially disseminate statistical information to government departments, other institutions and the general public;
- (e) Promote co-ordination and integration of statistical activities of data collecting agencies including the Bank of Sierra Leone and the Ministry of Finance in accordance with recognized international technical standards in order to advance the quality, consistency, comparability and optimum use of official statistics and to avoid unnecessary duplication;
- (f) Create public awareness of statistical collection and other activities related to the collection of statistics;
- (g) Designate statistics produced by SSL or other institutions as ‘official statistics’;
- (h) Delegate any power conferred or duty imposed on SSL by the Statistics Act and impose conditions for such delegation;
- (i) Promote and develop statistical training;
- (j) Protect respondents to statistical inquiries from undue burden and breaches of confidentiality.

414. The economic statistics work is undertaken by the Economic Statistic Division (ESD) which is headed by a Director. The Division has five Sections each of which being headed by a Manager, and organized according to their principal functions. These Sections are: National Accounts Section, Price and Labor Statistics Section, External Trade Statistics Section, Business and Industry Statistics Section and Agriculture Statistics Section.

415. The staff in the ESD consists of fifteen statisticians, all of whom hold a postgraduate degree. Ten statisticians assigned to the various sections within the Division are based at the head office while five of these are attached to the five sector Ministries under the supervision of the Division (Agriculture, Tourism, Transport, Labour, Employment and Social Security, and Trade Ministries). In addition, there are two assistant statisticians and twenty two other support staff assigned to various sections within the Division. With the exception of the Price and Labour Statistics Section which has data collection staff deployed in the five main urban towns in the country, all other divisional staffs are based in Freetown, the capital city.

2. Institutional arrangements

416. The economic statistics programme of Sierra Leone covers 13 out of the 14 ISIC sections listed in the questionnaire. Activities in section F - Construction are the only one not covered by the programme. SSL is solely responsible for the compilation of economic statistics data with respect to activities in section G - Wholesale and retail trade as it also carries out consumer price surveys of retail businesses for the compilation of the

consumer price index. Central Bank compiles economic statistics data with respect to activities in sections D - Manufacturing and J - Financial intermediation, while economic statistics for the remaining sections are undertaken by line ministries and specialized agencies.

417. The data collected by line ministries is fragmented, not exhaustive, and the system is uncoordinated. As a result, data is not readily available in standard format on request. The planning units in the various ministries mandated to collect, analyze and disseminate these data have over the years become non-operational. Budgetary allocation for statistical activities has not been used for the intended purpose, nor is the data generated used for decision making. This situation was identified by the IMF as a structural problem that should be corrected and for which a structural performance benchmark was set.

418. Statistics Sierra Leone developed a comprehensive strategy encumbered in the National Strategy for the Development of Statistics (NSDS) to address the inherent structural problems and improve on the reliability, quality and timeliness of statistical information produced in the country. Concrete proposals incorporated in the NSDS completed in October 2007 included the resuscitation of the statistical units in line Ministries and Government Departments and coordination of the statistical activities of the line ministries. Under this plan, Statistics Sierra Leone in 2008 recruited, trained and deployed eight statisticians in eight key Ministries with five of these statisticians directly supervised by the Economic Statistics Division. It is through these statisticians that the statistical activities of the ministries are coordinated.

3. Economic Census

419. The last economic census in Sierra Leone was carried out in 2005. It was conducted on an economy-wide scale and covered also units of the informal sector. Administrative data were used where available to supplement the direct enumeration in this census. However, no threshold was applied with respect to the unit's inclusion in the population to be completely enumerated. The next economic census is planned for 2010.

4. Economic surveys of the formal sector: survey frames

420. The SSL maintains a statistical business register which covers most of the sections listed in the questionnaire. For these sections, the survey frames are *list-based* derived from the business register. Economic units classified in sections A - Agriculture, hunting and forestry, B - Fishing, C - Mining and quarrying, M - Education and N - Health and social work are not covered by the register.

421. Economic surveys of the formal sector are conducted at the *establishment* level for activities in sections D - Manufacturing, E - Electricity, gas and water supply, F - Construction, G - Wholesale and retail trade, H - Hotels and restaurants, I - Transport, storage and communications, J - Financial intermediation, K - Real estate renting and O -

Other community, social and personal services activities. For all remaining activities, the surveys are conducted at the *legal unit* level.

5. Economic surveys for the formal sector: coverage and periodicity

422. Economic surveys of the formal sector are currently conducted on an *annual basis*, and they are intended to address the needs of the National Accounts. Data for activities in sections A - Agriculture, hunting and forestry, B - Fishing, C - Mining and quarrying, M - Education, N - Health and social work and O - Other community, social and personal services activities are derived from the appropriate line ministries. Thresholds are applied in all conducted surveys with respect to units' inclusion in the sample.

423. *Visits* are the main data collection method used for conducted economic surveys of the formal sector.

6. Data contents of economic surveys

424. The SSL annual economic surveys collect financial variables that address the needs of national accounts. In overall, these variables reflect income, expenditure and balance sheet position of units which allows for calculation of their value added. Output details in terms of CPC product classification are also included.

7. Informal sector

425. Household income and expenditure survey is the main source of data with respect to collection of economic statistics for activities of informal sector units. The Sierra Leone Intergraded Household Survey, Informal Sector Enterprise Survey and the Labour Force Survey were planned for 2009 within the framework of the NSDS. However, with the delay in the implementation of the NSDS arising from problems relating to resources mobilization to support the program activities, the implementation of these surveys have been rescheduled for 2010 and 2011. The 2004 census of population data have also been considered useful for determination of the size of informal activities in the country.

426. Informal sector enterprises are defined as enterprises that are not registered with government and are operating without the required legal documents. They are allocated to various ISIC sections at the four-digit level on the basis of their main activity. The data items collected about the informal production units are mainly total revenues, total expenditure, and total employment.

8. Supplementary topics

427. Economic statistics data disseminated by SSL to the general public do not have fixed release dates. Metadata and quality reports are not disseminated yet, neither are revision policy documents prepared and user satisfaction surveys conducted.

428. The most important impeding factors in the compilation of basic economic statistics are related to:

- (a) *Lack of adequate funding*: as these types of data are not usually directly used by policy makers for planning, their production is not a priority spending item. Thus, no budgetary allocations are made for these activities. Because of the low budgetary support from government, donors become the main source of funding. While donor funding is crucial, governments must be encourage to set the measurement agenda and pay the bill;
- (b) *Low staff motivation and training*: the low salary level at SSL compared to other institutions with similar functions leads to a high staff turnover. Consequently, new recruitments are made of staff without the relevant professional experience. Continuous staff training becomes necessary to ensure continuity. National statistical offices in African countries have to reconsider their incentive packages to ensure that they are able to retain highly qualified and trained staff. Otherwise a vicious cycle of training would continue ;
- (c) *Lack of adequate equipment*: in most cases the basic equipment necessary for data collection, processing and analysis such as computers, printers, vehicles, etc., are not readily available.

South Africa

1. General information

429. The 1999 Statistics Act defined the rights and responsibilities of the national statistical system in South Africa. “The Act provided for a Statistician-General as head of Statistics South Africa (SSA), who is responsible for the collection, production and dissemination of official and other statistics, including the conduct of a census of population, and for co-ordination among other producers of statistics; to establish a Statistics Council and provide for its functions; to repeal certain legislation; and to provide for connected matters.” The Statistician-General reports to the Ministry of Finance. The Act established also a Statistics Council and provided for its advisory functions to the Ministry, the Statistician-General and any organ of state that produces statistics.

430. The Act covered also the issues of confidentiality of the statistical information and the obligations of respondents to cooperate on official statistical inquiries along with related offences and penalties. Regarding the issue of confidentiality, statistical data are anonymized and releases are in aggregates. In cases where there are possibilities for identifying individuals, random rounding techniques are implemented to prevent the identification of individual records.

431. Overall, the purpose of the Act is to advance the planning, production, analysis, documentation, storage, dissemination and use of official and other statistics by providing for:

- (a) A Statistician-General as head of Statistics South Africa and for a Council;
- (b) The respective functions of the Statistician-General, the Council and the Minister and their inter-relations;
- (c) The co-ordination between Statistics South Africa and other organs of state that produce official or other statistics;
- (d) The co-operation between the producers of official statistics and: (i) the users of such and other statistics in the government, other sectors of society and the public at large and; (ii) the respondents supplying the information that results in official and other statistics;
- (e) The liaison with international and regional organizations that: (i) request official statistics and; (ii) make recommendations about the standardization, classification, collection, processing, analysis and dissemination of statistics.

432. The mandate of SSA is to provide the state with a relevant and accurate body of statistical information about the economic, demographic, social and environmental situation in the country, and to inform the user community on the dynamics in the economy and society through the application of internationally acclaimed practice. This is in line with the Fundamental Principles of Official Statistics of the United Nations. The Statistics Act is in fact based on these Fundamental Principles within the South African context. The work at SSA includes:

- (a) Undertaking official demographic, economic and social censuses and surveys;
- (b) Collecting and processing administrative statistics;
- (c) Publishing and disseminating statistical reports and releases;
- (d) Compiling national and government accounts;
- (e) Providing statistical advice to government and other institutions;
- (f) Analyzing statistical surveys and samples to ensure accuracy and consistency.

2. Institutional arrangements

433. SSA is responsible for nearly the whole economic statistics programme except for Mining and Quarrying statistics which are undertaken by the Department of Minerals and Energy (DME), and some Financial Intermediation statistics which are under the

responsibility of the Reserve Bank. SSA uses the inputs (mainly administrative data) from DME and the Reserve Bank, along with its own statistics produced for other sectors to compile the estimates of the Gross Domestic Product (GDP).

434. The SSA basic economic statistics programme comprises the following main components: (i) Financial Statistics Surveys; (ii) Large Sample Surveys; (iii) Agricultural Statistics; (iv) Quarterly Employment Surveys; (v) Quarterly Indicator Series, particularly relating to building and electricity generation statistics; (vi) Monthly Indicator Series mainly based on surveys of enterprises engaged in manufacturing, wholesale and retail trade, and motor trades; and (vii) Monthly Mining Production Surveys which are based on an administered by-product source.

435. The *Financial Statistics Survey* programme is intended to measure the overall activity in the country's economy. It is driven by two surveys: the Annual Financial Statistics Survey (AFS) and the Quarterly Financial Statistics Survey (QFS). These surveys are designed to give information on selected income and expenditure items and the consolidated balance sheet by industry. They are based on samples of private and public enterprises operating in the formal non-agricultural business sector of the economy excluding financial intermediation, insurance and government institutions.

436. The *Large Sample Surveys* (LSS) programme encompasses a rolling set of industry surveys covering most industry sectors of the formal market economy every 3-4 years. The industry detail in these surveys is considerably greater than in the AFS, but the financial data set is the same. The LSS programme collects also value data (and quantity where appropriate) for products (goods and services) inputs and outputs primarily the in-scope industries within the industry sector being covered in a particular year.

437. The *Agricultural Statistics* programme, which is based on Agricultural surveys and censuses, is intended to measure the activity of the agricultural sector within the national economy. The programme is centered on two main components: (i) the Annual Agriculture Survey (AAS) which comprises a set of sample surveys that collect a range of financial data in respect of enterprises engaged in commercial agriculture, as well as data on land holdings, crop production, etc.; and (ii) the Agricultural census, which replaces the agricultural survey of that year, is conducted every 5 years and covers all enterprises within the agricultural sub-sectors including farming, forestry, ocean and coastal fishing and agricultural services.

438. The *Quarterly Employment Survey* (QES) programme regroups quarterly sample surveys of employer entities, measuring the demand for employment in the formal market sector. Data collected include end of quarter employment and quarterly earnings. The main focus of this programme is on the industrial dissection.

439. All components of the basic economic statistics programme are used as inputs for the compilation of annual and/or quarterly national accounts. The responsibility for compilation of GDP estimates is divided between SSA and the Reserve Bank, and there is a close liaison between the two organizations on reconciliation of their estimates. SSA

is responsible for producing the production and income-based measures of annual and quarterly GDP, while the Reserve Bank produces the expenditure-based measures.

3. Economic Census

440. In the past, SSA used to conduct economic censuses, mainly for activities in Agriculture and Manufacturing. The last full census in the manufacturing industry was conducted in 1996. However, a decision was taken in 2000 to discontinue these censuses and instead, to systematically, and in depth, cover each of the industry sectors in the South African formal market sector by means of large sample surveys on a rotating basis. The LSS program is conducted against the background of the AFS, which collects an extensive range of financial data annually. Whereas the AFS covers the entire formal market sector annually at broad industry detail, the LSS program covers individual industry sectors at a fine level of industry detail. The financial data set for the AFS and LSS programs is essentially the same, but the LSS also collects product details – goods and services produced and used.

4. Economic surveys of the formal sector: survey frames

441. The surveys frames used in the economic statistics survey programme are list-based, derived mainly from a statistical business register. SSA has developed its own Business Register (BR) from an integrated business register (IBR) which is run mainly by SSA and other government agencies such as the South African Revenue Service (SARS) and the Departments of Labor, Trade and Industry. The Systems of Registers Division in SSA maintains the BR and takes responsibility for creating the sampling and survey frames, used by the sampling specialists in the Methodology and Standards Division.

442. Data files from seven administrative databases are received and stored in the IBR on behalf of the contributing agencies. However, input data from the IBR refer to administrative units, none of which are entirely suitable as statistical units. To meet the statistical needs SSA has transformed the IBR units into statistical units and thus defined a legal unit and three types of statistical units for the economic statistics programme. The four types of units are the following: the legal unit level, the enterprise unit level, the kind-of-activity unit level and the geographical unit level.

443. Most of the economic surveys are conducted on the *enterprise* level which is a legal unit or a combination of legal units that includes and directly controls all functions necessary to carry out its production activities.

The Financial Statistics Survey Programme

444. The frame for this programme is the Business Sampling Frame (BSF) drawn from the BR, for which businesses registered in the Value Added Tax (VAT) system are the main source for creating and updating of statistical units. Businesses registered in the Income Tax (IT) system are used as a source for updating the register, and information

for tem is used in profiling and delineation. The BR takes responsibility for creating the BSF and the survey frames drawn from it.

Large Sample Survey program (LSS)

445. The frame for LSS is the BSF. A stratified simple random sample is drawn from the BSF using the enterprise turnover from the VAT source as a measure of size for stratification. For those enterprises below the VAT threshold or exempted from the VAT system, the turnover is obtained from income tax sources. In this sample, “large” enterprises, defined in terms of VAT turnover, according to turnover size guidelines by the Department of Trade and Industry are completely enumerated.

Agricultural Statistics

446. The survey frame for the agricultural surveys and censuses is the BSF. The surveys are based on samples of farming enterprises operating in the agricultural business sector of the economy which are registered in the VAT and/or IT systems.

Quarterly Employment Statistics (QES)

447. The survey frame for the QES programme is the BSF. The sample covers the following industries: Mining and quarrying; Manufacturing; Electricity, gas and water supply; Construction; Trade; Hotels and restaurants; Transport; Storage and communications; Financial intermediation; Insurance; Real estate and other business services; and Community, social and personal services (including government institutions). Mining and quarrying data are obtained as administrative data from the Department of Minerals and Energy.

Electricity Statistics

448. The business register cannot give accurate information on establishments generating electricity because the majority of enterprises in the small population are classified to other industry sectors (such as manufacturing). SSA used the 1995 Census of electricity, gas and steam as the frame for the sample. Also, Eskom regularly provides SSA with a list of generating establishments, which has remained constant over the years. SSA confirms with Eskom on a regular basis if there were any additions in electricity undertakings producing electricity. These include enterprises predominantly classified to manufacturing and mining, as well as local authorities.

Manufacturing; Wholesale, Retail and Motor Trade; Mining Production and Sales

449. The survey frames used for economic surveys in these sections are also based on the BSF.

5. Economic surveys of the formal sector: coverage and periodicity

The Financial Statistics Survey Programme

450. This survey program is based on the Annual Financial Survey (AFS) and the Quarterly Financial Survey (QFS) which depend on accurate reporting by responding entities. In most instances, it is the financial manager or accountant, or individual with a strong background in accounting, who completes the questionnaire.

451. The AFS is a sample survey covering the formal sector of the economy (except commercial agriculture) and collecting financial data, at a broad level of industry detail sufficient for the calculation of industry value added and gross profit, as well as balance sheet items. The survey covers the following industries: forestry and fishing, mining and quarrying, manufacturing, electricity, gas and water supply, wholesale and retail trade, construction, transport, storage and communication, real estate and other business services (excluding financial intermediation and insurance) and community, social and personal services (excluding government institutions).

452. The AFS provides an annual complement to the LSS program which will be described below. Whereas the AFS covers the entire formal market sector annually at broad industry detail, the LSS program covers individual industry sectors at a fine level of industry detail. The financial data sets for the AFS and LSS programs are essentially the same, but the LSS also collects product details – goods and services produced and used. The information for AFS is collected for the financial years of enterprises that ended on any date between 1 July of one year and 30 June of the following year.

453. The QFS is a subset of the AFS designed to produce a range of financial current indicators. It covers the same industries as AFS, excluding forestry and fishing. For QFS, information is collected in respect of the March, June, September and December quarters

Large Sample Survey program (LSS)

454. The purpose of the LSS is to conduct comprehensive survey program periodically covering the structure, financial performance, inputs and outputs of all industry sectors on a rolling basis, at a detailed industry level. Its main objectives are:

- (a) To collect financial year data once every three to four years on each industry sector (excluding agriculture, forestry and fisheries, financial intermediation, insurance and government) of the South African economy;
- (b) To publish the first (usually financial) results within one year after the end of the reference year and the final report within twenty four months after the end of the reference year;
- (c) To provide more detailed breakdown on the product composition of “sales of goods”, “income from services” and “purchases” than the AFS and other short-term economic indicator surveys.

455. The reference period is any financial year which ends on any date between July and June, e.g., July 2006 to June 2007. The questionnaires are dispatched by mail and follow-ups are made by phone, fax and e-mail. Visits are made when necessary to assist enterprises with the completion of the questionnaires. Estimates are presently published at national level in a statistical release. For some of the surveys, details of sales (value and quantity, where applicable) are published in a separate report.

Agricultural Statistics

456. Agricultural sample surveys collect financial data (income, expenditure, debt, market values, losses experienced), product data, employment, size of land and land use, for the enterprises engaged in the agricultural sector (excluding forestry, ocean and coastal fishing and agricultural services). The Agricultural census covers all enterprises within the agricultural sub-sectors including farming, forestry, ocean and coastal fishing and agricultural services.

457. Agricultural surveys and censuses primarily depend on respondents or their representatives (accountants/bookkeepers/managers of the farmer/farming units) to truthfully and accurately report on the enterprise's activity. The trend seen during data collection in the most recent (2005) agricultural survey was that in most instances it was the accountants/bookkeepers/managers that completed the questionnaires for the sampled agricultural enterprises.

458. The information for agricultural surveys is collected for the financial year of enterprises that ended at any date between 1 March of one year and 28 February of the following year. The estimates are derived using a combination of: actual data obtained from respondents and historical information and/or data obtained from imputation methods, for non-respondents. Imputation is performed only for large non-respondent enterprises with turnover of more than 3 million Rand.

Quarterly Employment Statistics (QES)

459. The QES generates quarterly estimates of the number of employees, gross salaries and wages and average monthly earnings by industry. The survey is based on a sample of private and public enterprises and government institutions operating in the formal non-agricultural business sector.

460. The QES survey collects payroll data for the following industries: Manufacturing; Electricity, gas and water supply; Wholesale and retail trade; Construction; Transport, storage and communications; Financial intermediation; Real estate and other business services; and Community, social and personal services (including government institutions).

461. Information for QES is collected quarterly in respect of the March, June, September and December quarters. Data for Mining and quarrying are obtained as administrative data from the Department of Minerals and Energy.

Electricity Statistics

462. The survey on Electricity Statistics covers electricity undertakings and establishments conducting activities concerned with the generation and/or transmission and distribution of electricity, including electrical power installations which, as subsidiary divisions of undertakings, produce electricity for regular use by these undertakings.

463. The basic statistical unit for the collection of information is the electricity undertaking or establishment which is the smallest economic unit that functions as a separate entity. Each statistical unit is classified by industry. Data are collected on a monthly basis and completed questionnaires are required to be returned to SSA within 10 days after the end of the reference period.

Manufacturing Statistics

464. The monthly survey on Manufacturing and Production Statistics (MPS) measures the overall quantity and value of manufactures products and total value of stocks from a sample of enterprises in the economy. The survey is based on samples of private enterprises operating in the formal non-agricultural business sector, excluding financial intermediation, insurance and government institutions. This short-term survey is dependent on accurate reporting by responding entities. In most instances, it is the production manager at the manufacturing plant who completes the questionnaire.

465. The type of unit used for the collection of information is the enterprise, which is a legal unit or a combination of legal units that includes and directly controls all functions necessary to carry out its production activities. Data are collected monthly and published within 6 weeks (42 days) after the end of the relevant month. The MPS provide monthly indicators for moving annual data forward quarterly, making the MPS an important source for compilation of quarterly GDP and components.

466. Estimates from the survey are based on data reported by respondents, together with data from imputation for missing respondents based on their previous responses. Imputation is only performed for large enterprises, and enterprises for which data for at least one previous month were received. For medium and small enterprises that have never responded no imputation is performed. For these enterprises the original design weights are adjusted for non-response by raising the counts.

Wholesale, Retail and Motor Trade Statistics

467. The family of monthly Wholesale Trade, Retail Trade Motor trade sales surveys measures the activity of each of these sectors in the economy. The surveys are based on samples of private enterprises operating in the formal business sector of the economy. The surveys are designed to give information on sales by industry (wholesale and retail trade) and activity (motor trade).

468. The type of unit used in the surveys is the enterprise, which is a legal unit or a combination of legal units that includes and directly controls all functions necessary to carry out its production activities.

469. Information is collected for one calendar month and estimates are based on data reported by respondents, together with data from ratio imputation for missing respondents. Ratio imputation is only performed for large enterprises, and enterprises for which data for at least one previous month were received.

Mining Production and Sales Statistics

470. The monthly Mining Production and Sales survey measures mining production and minerals sales in the economy. The survey covers mining establishments conducting activities in extracting, dressing and beneficiating of minerals occurring naturally, such as coals and ores. The survey is based on administrative data received from the Department of minerals and energy (DME).

471. The basic statistical unit for the collection of information is the mining establishment which is the smallest economic unit that functions as a separate entity. Each statistical unit is classified to an industry.

472. Information is collected monthly and published within 6 weeks (42 days) after the end of the relevant month. Estimates for non-responding units are obtained by DME using an exponential smoothing method.

6. Data contents of economic surveys

Annual Financial Survey

473. The SSA Annual Financial Survey collects the following data items: Description of the main activity; Income items; Inventory opening and closing values; Expenditure items; Net profit or loss before tax; Company tax paid or provided for during financial year; Dividends paid; Balance sheet; Book value of assets and capital expenditure on fixed assets and intangible assets; and Environmental issues (Triple Bottom Line reporting, and ISO 14001 certificate).

Quarterly Financial Survey

474. The SSA Quarterly Financial Survey collects the following data items: Income items; Inventory opening and closing values; Expenditure items; Net profit or loss before tax; Tax and company tax brought into account; Dividends payable; Book value of fixed assets; Capital expenditure on selected new fixed assets; and Capital expenditure on purchases of land, existing building and works, as well as used plant, machinery and vehicles which are imported.

Large Sample Survey program

475. The SSA family of Large Sample Surveys collects the following data items: Industrial classification; Imports and exports; Use of ICT; Details of employment; Income items; Expenditure items; Profit or loss; Inventories; Dividends paid; Balance sheet; Book value of fixed assets; Details of income from service; Details of sales of goods; and Details of purchases.

Agricultural Statistics

476. The SSA Agricultural surveys collect the following data items: Description of the main activity; Income items; and Expenditure items.

Quarterly Employment Statistics

477. The SSA Quarterly Employment Statistics surveys collect the following data items: Description of the main activity; and Payroll items, namely salaries and wages, overtime payments, bonuses, number of employees, number of employees appointed, number of employees resigned, retrenched and dismissed.

Electricity Statistics

478. The SSA Electricity Statistics survey collects the following data items: Electricity generated; Electricity consumed in power stations and energy storage systems; Net quantity of electricity generated and sent out from power stations; Purchases outside the country; SCO, DWA and Assets (applicable to Eskom only); Sales to undertakings outside the country; Provincial distribution of electricity (Eskom only).

Manufacturing Statistics

479. The SSA monthly survey of Manufacturing and Production Statistics collects the following data items: Manufacturing, processing, making or packing of products; Slaughtering of animals, including poultry; and Installation, assembly, completion, repair

Wholesale, Retail and Motor Trade Statistics

480. The main types of data items collected by the SSA family of monthly Wholesale Trade, Retail Trade and Motor Trade sales surveys can be classified into the following headings:

- (a) Wholesale trade survey: Total wholesale trade sales; Total income from trade on behalf of and on account of others sales;
- (b) Retail trade survey: Total retail trade sales;

- (c) Motor trade survey: Total motor trades sales; Motor trade sales by type of activity (new motor vehicle sales and used motor vehicles sales); Income from service department or workshop; Direct sales of automotive fuels, oils and additives; Direct sales of spares and accessories; Convenience store income; and Other direct sales and other trading income.

Mining Production and Sales Statistics

481. The SSA monthly Mining Production and Sales survey collects the following data items: Total production of commodities; and Local export and total sales value of minerals in South Africa.

7. Informal sector

482. No information is provided

8. Supplementary topics

Dissemination and users

483. The data dissemination policy in SSA adheres strictly to the Statistics Act regarding confidentiality. Statistical publications are usually available through SSA website for free public access and hard copies are sent via e-mail to subscribers. For some statistics, additional dissemination is done when officials from SSA visit respondents to assist in the completion of questionnaires. The advance release calendar is a well developed practice for economic statistics data. The most important series have a release schedule that is available on SSA website for the next 12-month period. The release schedule for the other series on the web is available for the following week. The individual publications also publish the future release dates of the publication itself.

484. The main users of the basic economic statistics include:

- (a) Government: policy makers;
- (b) The South African Reserve Bank;
- (c) Research and/or Educational institutions such as universities, the Human Sciences Research Council, etc.;
- (d) International organizations such as IMF, World Bank, International statistical offices, etc.;
- (e) Labor unions;
- (f) Non governmental organizations;

(g) Industrial federations;

(h) General public: academic and business economists, media and businesses, etc.

Difficulties and challenges

485. The most important factors impeding the compilation of basic economic statistics in South Africa are mainly related to the following: (i) updating and maintaining the business register; (ii) obtaining the required response rates; (iii) locating enterprises as administrative information on the business register is not adequate and reliable for all sampled enterprises; (iv) Reliability of administrative data sources: in some cases, administrative data were not representative of the sector; (v) Differences in accounting standards and enterprises (payroll systems of some enterprises are not designed according to the breakdown requested in the questionnaires); and (vi) growing demand for the inclusion of a provincial dimension in some surveys estimates (LSS for example) which is made difficult by the choice of the statistical enterprise as the reporting unit. SSA is exploring ways to address this need, possibly through the creation of sub-enterprises units in the BR when an enterprise has activities in more than one province.

Swaziland

1. General information

486. The 1967 Statistical Act defined the legal framework for the production and dissemination of official statistics in Swaziland. The Act established the Central Statistical Office (CSO) as a semi-autonomous Department under the Ministry of Economic Planning and Development, responsible for the coordination and operation of the national statistical system which regroups the structures and bodies involved in the production and dissemination of official statistics for the Swazi society as a whole. The Office is headed by a Director who reports to the Principal Secretary of the Ministry. Other producers of official statistics include the Central Bank and line ministries such as the Ministry of Finance, Ministry of Health, Ministry of Transport, Ministry of Enterprise and Employment, Department of Customs and Excise, etc.

487. The Act covered issues of the collection/interpretation and dissemination of statistical information, the confidentiality of individual data and possible violations. It established also a National Statistical Committee (NSC) as the statistical advisory body for all statistical matters. Even though the NSC was established, it lacks effectiveness, and the Act is currently under revision to enhance its role and update existing provisions to adapt to new socio-economic and institutional developments. The main duties of CSO include:

- (a) Raise public awareness about the importance and role of statistical information in the society;

- (b) Collect, process, analyze and disseminate quality statistical information in a coordinated and timely manner;
- (c) Promote the use of “best practices” in statistical production and dissemination;
- (d) Promote the use of statistical information at individual, institutional, national and international level;
- (e) Build sustainable capacity for the production and use of statistical information in the country;
- (f) Re-orient users and motivate suppliers as to their role in data production.

488. The economic statistics work programme is undertaken by the economic statistics Division which is run by three professional staff and four supporting staff.

2. Institutional arrangements

489. The economic statistics programme covers 13 of the 14 ISIC sections listed in the questionnaire as only activities in section B - Fishing are not covered. CSO is the primarily responsible agency for compiling economic statistics data for all covered activities. For the preparation of data for activities in section J - Financial intermediation and section N - Health and social work, it cooperates respectively with the Central Bank and the Ministry of Health.

3. Economic Census

490. The latest economy-wide economic census was conducted in 2006. All properly registered establishments, without application of any threshold were covered. Setting the target population of the economic census in such a way left the units of the informal sector out of its scope. The next economic census is planned for 2011.

4. Survey Frames used in surveys of the formal sector

491. The survey frames used in the economic surveys of the formal sector are *list-based*. The survey frames are derived from a statistical business register established by the CSO. The register is updated annually however, there is need for improvement of its maintenance. The two main classifications used for the compilation of basic economic statistics are CPC product classification and a national classification of economic activities compatible with ISIC. Economic surveys for the formal sector are conducted at the *establishment* level for all activities covered by the economic surveys programme.

5. Coverage and periodicity of economic surveys of formal sector

492. Economic surveys of the formal sector are conducted on an annual basis for all activities covered by the economic surveys programme. Data in these surveys are mainly collected through *mail dispatch* with subsequent follow-ups by *phone* and *visits*.

6. Data contents of economic surveys

493. The annual economic surveys provide full output details in terms of CPC product classification. They collect also a set of financial variables reflecting income, expenditure and balance sheet position which allows for calculation of value added.

7. Informal sector

494. The production activities of the informal sector units have not been surveyed by the CSO so far. However, for the first time, a recently conducted Labor Force Survey (LFS) incorporated an informal sector module. The collected data items mainly referred to the employment status and characteristics of informal sector units. LFS is planned to be conducted on a 10-year frequency basis.

8. Supplementary topics

495. Economic statistics data disseminated by CSO to the general public have fixed release dates. CSO has not yet established a quality review policy for its data. Metadata and quality reports are not disseminated yet, neither are revision policy documents prepared and user satisfaction surveys conducted. The main users of the basic economic statistics produced are planners, economists and policy makers from government institutions and agencies.

496. The most important impeding factors in the compilation of basic economic statistics are related to the lack of trained data collectors.

Tanzania

1. General information

497. The National Bureau of Statistics (NBS) was officially launched as an Executive Agency on 26th March 1999. It was formed from the former Bureau of Statistics to provide efficient services, giving increased value for money for the benefit of the Government and the general public. It is the only agency mandated to provide official statistics to the Government, business community and the public at large. The transformation from a government department to a semi-autonomous agency was geared towards improvement on the performance for the production and dissemination of statistics. Nowadays, NBS carries out its activities in a businesslike manner, using commercial financial management and business-planning techniques, and is customer oriented.

498. Until recently, the statistical practice in Tanzania was governed by the Statistics Ordinance of 1961. By 2001 however, the Ordinance was considered no longer adequate for a modern statistical system. The new Statistics Act enacted in 2002 aimed at providing a more accurate legal underpinning of the role of the NBS and listed the following functions for the institution:

- (a) Drawing up an overall national statistics plan for official statistics and keep it under continuous review;
- (b) Establishing statistical standards and ensure their use by all producers of official statistics;
- (c) Coordinating statistical activities in the country;
- (d) Collecting, compiling, analyzing and disseminating statistics and related information;
- (e) Maintaining an inventory of all available official statistics in the country and to assist users in obtaining international statistics;
- (f) Providing statistical services to official bodies and the public at large;
- (g) Providing a contact point for international organizations and foreign institutions in need of statistics on Tanzania.

499. Under the new Act, the mission of NBS is to facilitate planning and decision making within the government and the business community, to stimulate research and inform public debate through the provision of relevant, reliable and timely statistics and quality statistical service in general. NBS endeavors to pursue this important mission on behalf of the Government, efficiently and diligently, by cutting down unnecessary costs. It has the capacity and technology to deliver the required statistical services to the nation. The staff shared the vision for NBS “to be the authoritative source of statistical information pertaining to socio-economic conditions in the country, an institution able to provide such information most effectively, a point of reference on statistical methodology and standards” and a centre for coordinating statistical activities in view of producing statistics that are consistent.

500. The NBS staff consists of qualified professional statisticians, who have been selected carefully to cater for the new roles of the NBS. The agency is therefore ready for the challenge in delivering this service by reducing operational costs and to finance its operations by setting inviting prices on the products and services rendered. NBS has committed itself to maintaining the capacity to be a prominent player in the delivery of statistical services in the country and to make a significant contribution to the activities of the national economy.

2. Institutional arrangements

501. Compilation of economic statistics for activities in sections A - Agriculture, hunting, forestry, B - Fishing, C - Mining and quarrying, D - Manufacturing, F - Construction, G - Wholesale and retail trade M – Education, N - Health and social work, E - Electricity, gas and water supply and H - Hotels and restaurants, I - Transport, storage and communications and O - Other community, social and personal services activities and K - Real estate, renting and business activities is undertaken by NBS. The NBS cooperates with all line ministries and specialized agencies within the national statistical system, including the Central Bank.

3. Economic Census

502. Economic census is one of the means of statistical observation used in the NBS of Tanzania economic statistics programme. Other means of statistical observation are the economic surveys and the administrative data sources.

4. Economic surveys of the formal sector: survey frames

503. The surveys frames used for the conducted economic surveys of the formal sector units are *list-based* mainly derived from the Central Register of Establishments (CRE) which is the Tanzanian statistical business register. The register is a directory of active registered establishments both private and public in the social and economic sectors of the country. The CRE attempts to cover all registered establishments with at least one person employed and classifying them in accordance with the International Standard Industrial Classification, Rev.3 (ISIC, Rev.3). Currently, the released CRE is for the establishments engaging five or more persons. The main problem associated with the register is its low reliability. However, considerable efforts have been made by the NSB for its improvement and updating.

504. The baseline survey frames derived from the business register are enhanced by using inputs from the conducted economic census. Usually, a sample of enumeration areas is drawn and all businesses of the selected areas are re-listed in advance for the conduct of the next economic survey.

5. Economic surveys for the formal sector: coverage and periodicity

505. Economic surveys and censuses undertaken by NBS and the administrative data sources are the main sources for compilation of economic statistics in the country. Sample surveys are conducted by drawing a sample from the existing list of names, addresses, size and other relevant information of establishments provided in the CRE. Currently the sample frame of establishments is being updated so that other surveys such as distributive trade surveys and construction surveys can pick sample from the frame.

506. Economic surveys of the formal sector are conducted at the *establishment* level which is defined as an economic or service delivery unit which engages under a single

control, in one or predominantly one kind of activity at a single location, e.g. an establishment can be a mine, a factory, a workshop, etc.

6. Data contents of economic surveys

507. The conducted economic surveys include a set of financial variables reflecting income, expenditure and balance sheet position of units which allowed for derivation of value added by economic activities.

7. Informal sector

508. The main data items collected through surveys like Labour Force Survey and household based surveys included: total revenues; some details on produced goods and services; total expenditures; some expenditure details; and total employment. The information from these surveys is used to estimate the income gained from the informal activities.

8. Supplementary topics

Dissemination and users

509. For most of the conducted surveys in NBS, including economic statistics surveys, the final results are printed out and distributed to users. Also, several survey results are posted on the website and some users are provided with these statistics in soft copy. Sometimes, if funding is available, users are invited to attend workshops where the final results (economic statistics, etc.) at the national or regional level of these surveys are discussed. Economic statistics are published yearly in the economic survey book which is prepared jointly by NBS and the Ministry of Planning, Economy and Empowerment. Most of the users need the book for their planning purposes as well as decision making. The main users of official statistics include: the government, business community, general public and international organizations like UNSD.

510. NBS, as the principal Statistical authority, is aware of the expectations of the society on the rights of access to statistical information and has adopted a well formulated data dissemination policy. Among the principles proclaimed by the national and international statistical communities, maintenance of professionalism and integrity in statistical work are the major considerations. Apart from the general principles, issues considered in this policy include user targeting, user friendliness and a client-based service culture, pricing policy, and promotion of statistical literacy in the community to ensure proper interpretation and application of statistics.

Difficulties and challenges

511. The most important factors impeding the compilation of basic economic statistics In Tanzania are mainly related to: the weakness of the statistical system as a whole; the lack of adequate financial resources; the poor quality of the administrative data produced

(some datasets are incomplete and a lot of data are not made available in a friendly and timely manner); and the low reliability of the statistical business register.

Tunisia

1. General information

512. The Statistical Law No. 99-32 of 13 April 1999 defined the rights and responsibilities of the national statistical system as a whole in Tunisia. In its three chapters, the Law set the fundamental principles of statistical activity, the structure of the national statistical system, the roles and missions of the public statistical structures, and various regulations, including the one for the confidentiality of statistical information. In this latter aspect, the Law stated the obligation to respect the confidentiality of individual data collected from businesses, households and individuals for the purpose of statistical surveys. Individual data can be released only under the ultimate requirement for authorization from the Ministry supervising the national statistical office and after a consultation with the National Statistical Council (NSC). Before the adoption of the Statistical Law, individual data were provided to organizations and universities for statistical and research purposes, after being anonymized. More precise procedures are now adopted with respect to the disclosure of individual statistical data.

513. A number of important actions for the enhancement of the national statistical system have been implemented in Tunisia since adoption of the Law. At the institutional level, the status of the national statistical office (Institut National de la Statistique (INS)) has been clarified and enhanced. A National Statistical Council (NSC) has been created in 2000 with the mandate of coordinating the activities of the public statistical bodies, including the national statistical office, other line ministries and specialized agencies, and training schools and centers, and ensuring the dialogue between the producers and users of the official statistical data. A School of Statistics and Analysis of Information was also created to train future statisticians in the country.

514. Two plans for statistics have been developed by the NSC covering respectively the periods of the 10th (2002-2006) and 11th (2007-2011) National Development Plans. They relate to all statistical structures and are being updated on an annual basis. The INS, which is under the supervision of the Ministry for Development and International Cooperation, establishes its work programmes within the framework set up by the plans and proceeds with the implementation of the statistical activities.

515. The INS is headed by a Director General assisted with seven Directors, each of whom heading one of the following Directorates: Demographic and Social statistics; Business Statistics; National Accounts; Current Economic Studies; Regional Statistics; Coordination, Dissemination and Information Technology; Known Services. The Economic statistics work at INS is undertaken by the following three Directorates: Business Statistics; National Accounts; and Current Economic Studies.

2. Institutional arrangements

516. The INS is the primarily responsible institution for the implementation of the economic statistics programme in Tunisia. According to the Statistics Law, for the fulfillment of this responsibility the INS cooperates with all line ministries and specialized agencies within the national statistical system, including the Central Bank.

3. Economic Census

517. In general, economic censuses are conducted only for activities in section B - Fishing. The last economic census in that sector was conducted in 2004 and it covered units of informal sector. Administrative data were also used to supplement the direct enumeration but no threshold was used with respect to the population to be completely enumerated. Extensive coverage for activities in the remaining sections is obtained through administrative registers. For these activities, thresholds were used with respect to the units' inclusion in the population to be completely enumerated, mainly on the number of employees, the turnover and other key variables.

4. Economic surveys of the formal sector: survey frames

518. The Decree No. 94-780 of 4 April 1994 mandated INS to establish and maintain a statistical business register. It is still under construction and since 2006, a regular "assessment and control" survey is conducted in order to improve its quality and make it ready and usable for the economic survey programme. For each registered business, the register records two types of information: the identification (identification number, corporate name, address, etc.) and the characteristics (activities, employment, etc.) of the business. This assessment survey covers mainly 17,000 small (6 to 49 employees) and medium-size business (50 to 199 employees). Significant efforts will be needed to cover those businesses with less than 6 employees (micro-businesses).

519. The survey frames for activities in section A - Agriculture, hunting and forestry, are *area-based* established mainly from the geographical census areas, the big farms and the private estates. For all remaining activities, the survey frames are *list-based* derived mainly from administrative business registers. These frames are being progressively included in the statistical business register as it is updated and improved.

520. Economic surveys of the formal sector are mainly conducted at the *enterprise* level except for activities in section A - Agriculture, hunting and forestry for which the surveys are conducted at the *local unit* level.

5. Economic surveys for the formal sector: coverage and periodicity

521. The INS economic surveys programme for the formal sector encompasses various surveys with different periodicities. The programme is conducted mainly by the Business Statistics Directorate and the Current Economic Studies Directorate:

- (a) The main economic surveys conducted by the Business Statistics Directorate include the following: (i) National Survey of Economic Activities; (ii) National Survey on Micro-Businesses Activities; (iii) Annual Survey on Employment and Salaries; and (iv) Other Business Surveys.
- (b) The main economic surveys under the responsibility of the Current Economic Studies Directorate include: (i) Annual Survey on Investment; (ii) Quarterly Survey on Industrial Investment; (iii) Quarterly surveys on the Situation and Prospects of Industrial Firms; (iv) Price Indices; (v) Industrial Production Indices; (vi) Industrial Sales Price Indices; and (vii) Survey on the Trade Conjuncture.

522. The following paragraphs in this section will give more details on the economic surveys of the Business Statistics Directorate as these surveys are more relevant to the compilation of basic economic statistics.

The National Survey on Economic Activities (NSEA)

523. The purpose of the NSEA is to encompass the economic activities of businesses in various sectors through a comprehensive survey program with the aim of establishing a benchmark statistics about them. Its main objectives are:

- (a) To collect detailed information on businesses accounts;
- (b) To accurately measure the weight of the various sectors in the overall economic activity and to better identify the respective contributions of the modern activities within each sector;
- (c) To help public and private users in their studies and projects;
- (d) To respond to the various needs of the national accounts.

524. Economic units engaged in non-agricultural activities in the country, including Industry, Mining, Energy, Construction, Trade, Hotels, Transport and other various services fall within the scope of the survey. Financial activities and non-market services as well as public administrations are excluded from the survey. The units surveyed are resident legal entities as opposed to establishments which are geographical entities. The activities of these economic units are determined on the basis of the Tunisian Classification of Economic Activities.

525. The survey frame used is based on the statistical business register and an updated version of the frame is prepared on the 31st of December each year. A stratified sample is then drawn from businesses with 6 or more employees. The stratification variables are mainly the activity and the size of the economic unit. All businesses with more than 50 employees are fully enumerated.

The National Survey on Micro-Businesses Activities (NSMBA)

526. The NSMBA is considered a valuable tool for the statistical measurement of the informal sector. The survey is conducted every five years during the last quarter of the year, and targets the business owners/managers of micro-businesses asking them for information about the characteristics, production, employment, etc. of their unit.

527. The main objectives of the NSMBA are to collect information on production activities and employment of the target population. The results of the survey are intended to give a better picture of the economic situation of micro-businesses (all economic units with less than 6 employees, engaged in non-agricultural activities) in order to determine the opportunities and weaknesses of this sector within the global dynamics of the national economy. On December 2006, the national statistical register recorded a total number of 482 735 of such businesses in the country. The sampling fraction for the survey in 2007 was about 3.3 percent and a stratified sample was drawn using activity and size as stratification variables.

The Annual Survey on Employment and Salaries (ASES)

528. The main objective of the ASES is to establish a series of indicators on the various relationships between Employment, Salaries and Hours worked. The survey collects information on the growth in employment, by socio-professional category, and on the gross salary breakdown between base salary, overtime and bonuses. The survey seeks also to measure the actual working hours.

529. The survey covers mainly the economic units with more than 6 employees, engaged in non-agricultural activities including Industry, Construction, Trade, Hotels, Transport and other various services. A stratified sample of 4000 units is drawn from a population of 17,000 such businesses registered in the statistical business register. The composition of the take-all stratum is still under consideration. In the past, the 866 businesses with 200 or more employees accounted for 45% of the total number of employees.

Other Business Surveys

530. Other Business Surveys with different frequencies are conducted by the INS for or in collaboration with various line ministries and specialized agencies within the national statistical system. Such surveys include among others, the annual survey on *competitiveness* which is conducted for the Institute of Quantitative Economic, the bi-annual survey on *Innovation, Research and development* which is conducted for the Ministry of Scientific Research, etc.

6. Data contents of economic surveys

531. The INS annual and quarterly economic surveys provide full output details in terms of CPC product classification. They collect also a set of financial variables

reflecting income, expenditure and balance sheet position of units which allow for calculation of value added by economic activity.

7. Informal sector

532. Economic statistics for the informal sector are mainly provided through the National Survey on Micro-Businesses Activities (NSMBA) which is *an informal sector type* enterprise survey conducted on a five-year basis. The data items collected about the activities of informal units fall in the following five categories: total revenues (at the 2-digit level of the Tunisian Classification of Economic Activities); some details on produced goods and services; total expenditure; some expenditure details; and total employment.

8. Supplementary topics

533. Economic statistics data disseminated by INS to the general public have fixed release dates. Whenever possible, methodological documents about data quality and the revision policy are disseminated along with the published statistics. No user satisfaction survey has been conducted yet.

534. The most important factors impeding the compilation of basic economic statistics in Tunisia are related, among others, to the difficulties of accessing the information from administrative data sources; the lack of cooperation from business managers; the lack of harmonization with respect to Tunisian Classification of Economic Activities; the lack of adapted survey questionnaires; the weaknesses of the statistical business register, etc.

Uganda

1. General information

535. The Uganda Bureau of Statistics (UBOS), formerly known as the Statistics Department under the Ministry of Finance, Planning and Economic Development, was transformed into a semi-autonomous body by the Statistical Act No. 12 of 1998. The decision to establish the Bureau emerged from the need for an efficient and user-responsive agency that emphasized Professional Independence, Trustworthiness and Usefulness of Statistics to meet the growing demand for statistics on the social, economic and political development of the country.

536. The Statistics Act provides for the development and maintenance of a National Statistical System by the UBOS to ensure collection, analysis and publication of integrated relevant, reliable and timely statistical information. In addition, it establishes the UBOS as a coordinating, monitoring and supervisory body for the National Statistical System. The Act, therefore, provides an enabling institutional and regulatory framework for the production and management of official statistics, and ensures the professional independence of the Bureau. The provision on Confidentiality in Section 19 of the Act

ensures that individual data collected for statistical compilation, whether they refer to natural or legal entities are strictly confidential and used exclusively for statistical purposes. The confidentiality is well protected to the extent that the data collected on individual units remains confidential to the Uganda Bureau of Statistics. The only data to be released to anyone, (other Departments, Industry groups or individuals), is contained in tables of aggregated data from which it will not be possible to identify anything about any single establishment either directly or indirectly.

537. UBOS, as empowered by the Statistics Act, has primary responsibility for production of Official Statistics. The Act stresses the role of coordination with other data producers and users, which is ensured through the establishment of the Directorate of Coordination Services at the UBOS. The Plan for National Statistical Development (PNSD) in Uganda, put in place in 2006, is the framework for strengthening capacity and the quality of statistics production across the National Statistical System (NSS) to support planning, policy formulation and monitoring for results-based management. The design of the PNSD emphasized mainstreaming of sector statistics and implementation is focused on prioritized activities of the Sector Strategic Plans for Statistics (SSPS) and is to cover Line Ministries, Government Agencies, Local Governments, the Private Sector, Non Governmental Organizations (NGOs) and Research Institutions including Higher Institutions of Learning. To date a total of 19 agencies have been mainstreamed in the PNSD each with its own SSPS. With the PNSD, the Bureau, therefore, aims at developing a "Coherent, Reliable, Efficient and Demand-driven NSS that supports Management and Development Initiatives"; to which all relevant data producing agencies in the NSS will contribute. The mission of the Bureau is "to develop a coherent, reliable, efficient and demand-driven National Statistical System that supports management and development initiatives", and the strategic objectives drawn to achieve this include:

- (a) Providing high quality official statistical/information services;
- (b) Promoting standardization in the collection, analysis and publication of statistics to ensure uniformity in quality, adequacy of coverage and reliability of statistical data and information;
- (c) Providing guidance, training and other assistance as may be required to other users and providers of statistics;
- (d) Promoting co-operation, co-ordination and rationalization amongst producers, users and suppliers of statistics at national and local levels so as to avoid working at cross purpose, omissions, duplication of efforts, and to ensure optimal utilization of scarce resources.

538. The UBOS is comprised of seven directorates and an independent unit responsible for internal audit. The Economic Statistics work is undertaken by the following two directorates: Business and Industry Statistics and Macro Economic Statistics.

2. Institutional arrangements

539. The Economic Statistics programme covers all activities undertaken in Uganda in the 14 ISIC sections listed in the International Standard Industrial Classification (ISIC) Rev 3. Whereas the UBOS provides most of the data on Economic Statistics collected through surveys, this is further supplemented by administrative data compiled by specific Line Ministries, Departments and Agencies including but not limited to: A - Agriculture data compiled by the Ministry of Agriculture, Animal Industries and Fisheries; E - Electricity, Gas and Water by the Electricity Generation, Distribution and Regulatory Authorities and the National Water and Sewerage Cooperation; M - Education by the Ministry of Education and Sports; N - Health and Social Work by the Ministry of Health; J - Financial Intermediation by the Central Bank; Hunting; Forestry. In order to enhance data quality the UBOS works jointly with the respective line ministry or specialized agency regarding compilation of economic statistics and in such cases a Memorandum of Understanding (MoU) is drawn clearly spelling out the roles of each institution and outputs expected. Efforts are underway to draw MoUs with all key producers of Economic Statistics. To date the MoUs drawn by the Bureau for the compilation of some key Economic Statistics include:

- (a) Trade Statistics with the Central Bank and the Uganda Revenue Authority;
- (b) Private Capital Flows & Investment Surveys with the Central Bank and the Uganda Investment Authority;
- (c) Tax Statistics with the Uganda Revenue Authority;
- (d) Innovation, Research and Development Statistics with the Ministry of Tourism, Trade and Industry and the National Council of Science and Technology.

3. Economic Census

540. The last economy-wide census in Uganda was carried out in 2003 for the reference period 2000/2001. It covered units of both informal and formal sectors for all activities as spelt out in the ISIC Rev 3. All the businesses covered by the census were those with a fixed location, while for the household sector, even household based businesses were covered.

541. Thresholds with respect to the units' inclusion in the population to be completely enumerated were applied mainly on the number of employees in all activities except those in section E - Electricity, gas and water supply. For activities in section A - Agriculture, hunting, forestry the threshold applied was on a different variable. No administrative data were used to supplement the direct enumeration. The next economic census is planned for the reference period 2008/2009.

4. Economic surveys of the formal sector: survey frames

542. The survey frames for conducted economic surveys of the formal sector units are *list-based* derived from a statistical business register, except for activities in section M - Education which are derived from a combination of administrative registers and the statistical business register. Economic surveys are conducted mainly at the *establishment* level. However, if a business is part of an enterprise group and is not self-accounting, it is surveyed at the enterprise level.

5. Economic surveys for the formal sector: coverage and periodicity

543. Economic surveys of the formal sector units are conducted on an infrequent basis, mainly every 10 years. There is a plan, however, to reduce their periodicity to at least every 5 years and supplement them with annual sample surveys. An Annual Business Inquiry (ABI) is to be undertaken in 2008 and it is expected to cover up to 500 businesses country-wide, but funding problems still exist for this programme.

544. Thresholds with respect to the inclusion of units in the sample were applied in all conducted surveys, mainly based on the number of employees. For the 2000/2001 Uganda Business Inquiry the thresholds varied from section to section:

- (a) For sections D - Manufacturing, G - Wholesale and retail trade and H - Hotels and restaurants, all businesses with 20 or more employees were covered;
- (b) For section C - Mining and quarrying, utilities (part of section E) and insurance (part of section J), all businesses with 5 or more employees were covered;
- (c) For the remaining sections, all businesses with 10 or more employees were covered.

545. Administrative data were also used to supplement the direct enumeration for those units below the thresholds.

546. *Visits* are the main collection methods used for conducted surveys.

6. Data contents of economic surveys

547. Two categories of data items are collected through the infrequent surveys - a set of financial variables reflecting income, expenditure and balance sheet position of units which allows for derivation of value added by activity based on ISIC, Rev.3 and full output details in terms CPC compatible product classification. For this second category, the CPC coding was not implemented in the last survey; instead, HSC codes were used as a proxy for CPC. However, there is a plan to use the CPC coding for future inquiries.

7. Informal sector

548. There is no a proper definition of informal enterprises currently in use by UBOS, but such definition includes in principle the following: all businesses without a fixed

location; without final or structured accounts; without legal ownership; that could be household-based most of the time; and that have a lifetime of less than 1 year (e.g. hawkers, etc.); do not pay taxes; and are employing less than 5 persons.

549. The mixed household-enterprise survey conducted every 10 years is the main data source used for collecting information about the activities of the informal sector units. The Informal Businesses in households are covered as a module in a Household Survey Program. The questionnaires for households are different from the businesses and also different for each sector. With availability of funds this survey is to be conducted at least every 5 years. Units of the informal sector were allocated to various activities at the four digit level of ISIC and this was provided for in the questionnaires.

550. The data collected about the production activity of the informal units referred mainly to their total revenues, some details on produced goods and services, total expenditure, some expenditure details, total employment and gross capital formation. Data was not collected on depreciation of fixed assets for household based businesses.

8. Supplementary topics

551. Economic statistics data disseminated by UBOS to the general public do not have fixed release dates. UBOS has not yet established a quality review policy for its data. Metadata and quality reports are not disseminated yet; neither are revision policy documents yet prepared. The first user satisfaction survey was planned for 2008. Planners, Economists and Policy Makers from government institutions and agencies are the main users of basic economic statistics produced and disseminated by UBOS.

552. The most important impeding factors in the compilation of basic economic statistics are related to the lack of funding for conducting surveys. So far all business surveys have been funded by donors such as DFID. Difficulties exist also with measuring the contribution of the informal sector. There is a strong need for specialized surveys conducted for this sector only. Inability to conduct annual surveys or bi-annual surveys to supplement the inquiry data is also a serious impediment for the compilation of annual and short-term basic economic statistics. Availability of an up-to-date business register is considered crucial for implementing an efficient economic statistics programme.

Zambia

1. General information

553. The Census and Statistics Act of 1964 (chapter 127) established the legal authority for the collection, processing and dissemination of the official statistics in Zambia. By this law, all establishments and individuals are required to give information on official request. It also ensures that the information supplied is only used for statistical purposes, i.e. it is kept strictly confidential and no individual, company organization name or identity is disclosed.

554. The Central Statistical Office (CSO) is one of the ten Departments under the Ministry of Finance and National Planning (MFNP). It is headed by a Director and is divided into four broadly defined subject matter Divisions each headed by a Deputy Director, namely: Economic Statistics Division, Social Statistics Division, Agriculture and Environment Statistics Division and Information Technology, Research and Dissemination Division. The Divisions are further subdivided into Branches and Sections. Besides the subject matter branches and sections, there are Units, which are referred to as Service Units. Their role is principally to service the day-to-day operations of the subject matter divisions. These include operations, information technology, administration, transport, accounts, internal audit, and security. In addition CSO has an office in each of the nine provinces of the country.

555. A Principal Statistician heads the Provincial Statistical Offices. Currently CSO has a total of 656 established posts. 547 or 83 percent of the established posts are filled. The staff members are categorized as professional, sub-professional, technical and support staff.

556. The Economic and Financial Statistics Division is subdivided into six branches, namely: National Accounts, Industrial Production, Balance of Payments, Prices and Consumption, Public Finance Statistics Branch and the Living Conditions Monitoring Unit. The division is responsible for the production of economic and financial statistics from households and business establishments. It collects information on External Trade, Balance of Payments and Industrial Production which includes Mineral and Transport Statistics.

557. In addition, the division collects information for National Accounts from which the Gross Domestic Product (GDP) is derived. The division also analyses the Consumer Price Index (CPI), a measure of inflation, which is derived from prices statistics. The division is also charged with the responsibility of monitoring of living conditions and poverty levels for the Zambian population, including the provision of timely information on Food Security through the Food Security, Health and Nutrition Information System (FHANIS). FHANIS provides complementary information to the Living Conditions Monitoring Survey (LCMS). The division also provides technical advice on economic and financial statistics.

558. The Public Finance Statistics Branch (PFSB) collects, compiles, analyses and disseminates Central Government Financial Statistics, Local Government Statistics, Money and Banking Statistics and Financial Statistics pertaining to Grant-Aided institutions and Social Security institutions.

2. Institutional arrangements

559. The CSO of Zambia's economic statistics programme covers all 14 ISIC sections listed in the questionnaire. Except for economic statistics on activities in section C - Mining and quarrying which are compiled solely by a line ministry, CSO is responsible

for the compilation of these statistics for activities of all of the remaining sections. CSO cooperates with the respective line ministries and specialized agencies for the production of economic statistics for activities in sections A - Agriculture, hunting and forestry, B - Fishing, H - Hotels and restaurants, I - Transport, storage and communications and J - Financial intermediation. Also, economic statistics for activities in section E - Electricity, gas and water supply are compiled by a different statistical body.

3. Economic Census

560. The first economic census was carried out in 2007 and it covered activities in all ISIC sections except for section M - Education. The next economic census is planned for 2012 and it is supposed to be conducted on an economy-wide scale.

4. Economic surveys of the formal sector: survey frames

561. The survey frames for conducted economic surveys of the formal sector are *list-based* derived from the latest census list. Administrative business registers are also used to supplement or verify the list-based frames. CSO has no statistical business register yet.

5. Economic surveys for the formal sector: coverage and periodicity

562. Economic surveys of the formal sector are mostly conducted on a quarterly basis for all activities except for those in section A -Agriculture, hunting and forestry (excl. hunting and forestry) carried out on an annual basis. In most of these quarterly surveys, the data are collected from administrative data sources except for activities in sections C - Mining and quarrying, D - Manufacturing and E - Electricity, gas and water supply, for which statistical surveys are used. Monthly surveys are conducted only for activities in section H - Hotels and restaurants.

563. No information is provided on the use of thresholds and on the data collection methods.

6. Data contents of economic surveys

564. The conducted economic census in 2007 collected a set of financial variables reflecting income, expenditure and balance sheet position of units which allowed for derivation of value added by economic activity.

7. Informal sector

565. The estimates of the production activity of the informal sector units in Zambia are based on the information derived from conducted mixed household-enterprise survey, household income and expenditures survey and labor force survey. This information allowed units to be allocated to various ISIC sections. The main data items collected through surveys included: total revenues; some details on produced goods and services; total expenditures; some expenditure details; and total employment.

8. Supplementary topics

566. Economic statistics data are disseminated by CSO to the general public in the Monthly bulletin released on the last Thursday of every month. Metadata and a revision policy document are disseminated along with the published data.

567. The most important impeding factors in the compilation of basic economic statistics are related to the lack of adequate resources to carry out the needed surveys.

III. The way forward: good practices and their implementation

1. The objective of this chapter is to describe good practices in the compilation of basic economic statistics and to provide guidance and advice for African countries in dealing with difficulties and challenges encountered in their daily activities for the compilation and dissemination of relevant, accurate and timely basic economic statistics. The structure of the chapter reflects the main issues raised by countries with respect to the difficulties and challenges that impede the compilation of basic economic statistics in the African region.

1. Strengthening national statistical infrastructure

2. One of the main issues highlighted during the discussion sessions of the Addis Ababa and Pretoria meetings, was related to the weak national statistical infrastructure observed in most of the African countries, which includes the physical infrastructure, the human and financial resources and the overall statistical surveys infrastructure. On the physical side, the lack of adequate facilities and poor equipment including information technology equipments and vehicles, were the most common impeding factors reported. On the resources side, inadequate funding of statistical programmes, inadequate trained staff, lack of staff motivation and a high staff turnover were also highlighted. On the survey infrastructure side, the lack of comprehensive and up-to-date statistical business register for the construction of survey frames, the lack of use of advanced and up-to-date statistical methods and techniques were among the factors reported.

3. *Need for a strategic approach to strengthening national statistical infrastructure.* Overcoming or even significantly reducing those shortcomings is a very difficult task which can only be achieved over a rather long period of time assuming that a well thought out strategy for strengthening national statistical infrastructure is developed and systematically implemented. Such a strategy should be driven by a clear understanding of the needs of the producers and users of statistical information in general and economic statistics in particular. It is a good practice to cover in such strategy the following dimensions:

- (a) *Institutional and organizational*, including the legal framework and the organizational structure governing the operation of the national statistical system;
- (b) *Methodological and technical*, covering the system of standards and technical tools of the knowledge body on which statistical practice is based;
- (c) *Statistical advocacy*, including the statistical awareness of the economic policy makers (Government, business community) and also in the society as a whole.

4. These dimensions are interdependent and require resources. Therefore, any planned activities in those areas should be formulated taking into account the competing

demands for the countries' resources, in which statistics are not usually high on the list. In this context, it is advisable to clearly define the desirable outcomes at different stages of the strategy implementation and periodically reprioritize the objectives depending on the circumstances.

5. *Institutional and organizational dimension.* The existing statistical laws should be reviewed and the proposals for their revision to adapt to the ever changing socio-economic environment should be developed and submitted to the appropriate bodies. Updates and amendments of these laws must aim at empowering the national statistical offices and facilitating their statistical operation by strengthening the cooperation among the various agencies within the statistical system; harmonizing statistical practices including the use of common classification and identification systems, concepts and definitions used for the collection, compilation and dissemination of economic statistics; and integrating the various statistical activities into the same statistical programme. Statistical laws allow national statistical offices to have access to all available data sources including business registers and administrative data, and at the same time guarantee to the respondents that the information they provide is used according to official confidentiality rules.

6. *Methodological and technical dimension.* Considerable attention should be given to the implementation of sound statistical techniques in all stages of national statistical inquiries (planning, collection, compilation and dissemination) in accordance with existing international standards and recommendations. Substantial efforts need also to be made for adequate staff training and a sound staff retention policy within the national statistical system to ensure that the agencies responsible for the production of economic statistics are adequately staffed in a sustainable manner. In this context, international organizations and the donor community can play an important role by providing funding and/or technical assistance activities (practical training seminars/workshops, etc.). Sustainability can be improved in this area by conversion of donors into investors/partners, as funding of statistical infrastructure leads to long term gains for all parties involved.

7. *Statistical advocacy dimension.* A high level of statistical awareness is one of the most important preconditions for effective functioning of the national statistical system. The statistical advocacy should assist the society to fully appreciate the value of statistical information for the decision-making at the government, business and community level. This will help to make the general case that statistics form a necessary part of the enabling environment for improving development outcomes, mobilizing and properly using national and international resources for statistics and, promoting coordinated investment in the development of statistical capacity. Statistical advocacy should be done at every level, but especially at the highest level of government. At the country level, the users and producers of statistics and national statistical associations should strive to enlist commitment to the development of statistics.

8. Statistical advocacy plays a key role in getting the government support and financing for national economic statistics programmes. Political leaders and senior

officials, including policy makers and financial planners should be sensitized and be involved in the process in order to create a greater political will for the development and use of statistics and to promote a culture of empirical evidence-based policy, planning and decision-making. Moreover, attracting the attention of the donor community including the business sector, civil society organizations and academia, and international and/or regional economic organizations, enhances the success of the programme.

9. At the institutional level, national statistical offices are encouraged to improve their visibility and profile within the system of governmental agencies and sensitize those agencies on the usefulness of produced economic statistics for national policy making, and the need for a more close cooperation between all agencies of the national statistical system. In this context, a more effective use of the central position of national statistical offices should be implemented, focusing on their role as coordinators of statistical activities and promoters of a wide system of statistical standards. Delegation of certain data compilation/dissemination activities to other agencies should be seen as a resource saving device.

10. At the country level, countries are encouraged to enact new statistical legislations or revise existing legislations to ensure that they are up-to-date in dealing with the new developments in the socio-economic environment. It is a good practice to refer to the UN Fundamental Principles of Official Statistics to encourage the legislations to support national statistical operations by: (i) providing for the functions and operations of the national statistical system and national statistical office; (ii) appointing the head of the national statistical office as the highest authority in the national statistical system with respect to substantive statistical matters, and granting the position a sufficiently high status in the government; (iii) ensuring the professionalism of the national statistical office in the enhancement of integrity, credibility and impartiality of official statistics and increasing its autonomy in order to promote its efficiency and effectiveness; (iv) providing for the coordination, harmonization and effectiveness of the national statistical system by establishing a statistical board, council, commission, or committee to advise on or set priorities for statistical production; the body should have the authority to enforce compliance with its decisions; (v) conferring the power to collect statistical data; (vi) setting rules for compliance and statistical confidentiality to ensure that individual records are not accessed by unauthorized individuals or shared with political authorities or regulatory and tax agencies; (vii) providing for data dissemination and access and; (viii) providing sufficient funding for statistical operations.

11. It should be emphasized that one of the effective ways to strengthen the national statistical infrastructure is the promotion of the increasingly closer collaboration between all different offices/agencies in the national statistical system, which are responsible for producing and disseminating official statistics (including national statistical offices, line ministries and specialized agencies, and the central bank). This will facilitate the flow of information and the harmonization of activities and practices in the compilation and dissemination of official statistics. The establishment and reinforcement of statistical advisory committees, in order to facilitate the harmonization and coordination of

statistical activities across all these governmental agencies is a proven good practice that should continue and be strengthened.

12. At the regional level, countries are advised to consider establishing a greater collaboration between their respective national statistical offices (South-South cooperation) in order to share experiences and exchange ideas on how to deal with issues and challenges related to their statistical work programme. In many cases, some of these countries share common circumstances (geographical, political, socio-economic, level of statistical advancement, etc.), making it easier to replicate proven successful practices that have been tested and used in one of them.

13. At the international level, African Centre for Statistics (ACS) is invited to develop a multi-year action plan to assist African countries in the area of basic economic statistics in consultation with countries, regional and international organizations and begin its implementation. It is also invited to review available statistical training materials and develop a knowledge base which can be used by countries in their training activities. ACS is also encouraged to strengthen their cooperation with regional and international partners, including UNSD, to seek more complementarity and efficiency in their technical assistance programmes for African countries; inform these partners about the needs of African countries with respect to the compilation and dissemination of basic economic statistics; and ask those organizations to review their assistance programmes in view of these needs.

2. Economic surveys

14. As has been highlighted in the preceding chapters, economic surveys, including economic censuses and sample surveys, remain the most commonly used tool for the collection and compilation of basic economic statistics in the African region. Economic surveys are likely to remain a foundation for a successful compilation of economic statistics in Africa for years to come. Therefore, national statistical offices are advised to make additional efforts to run the economic survey programmes in a more efficient way by finding a right balance between various forms of the surveys and adopting a more integrated way of their organization. A well established economic survey programme will provide a regular flow of information on the activities and structure of the variety of economic sectors and sub-sectors, play a key role for the macroeconomic analysis and, as a consequence, be of a vital importance for the formulation, monitoring and assessment of national development policies.

15. One of the main advantages of statistical surveys as compared to other data collection methods (such as administrative data sources) is that the whole process of their planning and implementation is under the control of the national statistical office itself. Also, respondents have less reason to deliberately misreport the data as the statistical office guarantees the confidentiality of the data and the fact that the data will not be used for other than statistical purposes.

16. The decision of whether to conduct a census or a sample survey is based on numerous factors including among others the budget and resources available, the size of the population and subpopulations of interest, and the timeliness of the survey results. The main reason for selecting a sample survey over a census is that sample surveys often provide a faster and more economical way of obtaining information of sufficient quality for the user's needs. Since a sample survey is a smaller scale operation than a census, it is easier to control and monitor. However, in some cases, a census may be preferable or necessary, especially for the design and establishment of statistical business registers.

Economic censuses

17. An economic census is a statistical survey that is conducted at infrequent intervals of time (usually every five or ten years) aiming at collecting the identification variables together with a limited number of economic variables. In general, the primary purpose of such a census is to establish/update the survey frame and/or business register (such economic censuses are frequently referred to as censuses of establishments). Some countries might use censuses to collect an expanded list of economic variables in order to obtain a more detailed picture of a country's economy including distribution of economic activities by various geographical, administrative and small area breakdowns.

18. Economic censuses in African countries usually cover almost all 14 of the ISIC sections listed in the "Country Notes" questionnaire, except for the agricultural sector which usually requires specific inquiry techniques. However, economic census in some countries can be limited to individual sectors or activities, that is, a complete enumeration of economic units for individual sectors or activities as opposed to an economy-wide census.

19. Conduct of an economic census is a good practice for providing African countries with the information needed for establishing and maintaining of statistical business registers, as well as for providing the statistical foundation for continuing economic analysis by policymakers and businesses. However, the conduct of such an extensive operation requires significant financial and human resources. Before planning an economic census countries should secure adequate funding for its conduct and be proactive in their work with data providers for achieving high response rates.

20. To conduct a successful economic census it is a good practice to:

- (a) Establish clear census objectives that make sure organizational roles and responsibilities of National Statistical Offices and other institutions involved are well understood;
- (b) Establish programme priorities in close collaboration with key data users;
- (c) Ensure that programme priorities satisfy important government and public policy needs;

- (d) Use available information on response characteristics when determining content, developing data collection strategies, or improving data collection methods;
- (e) Align data requests with business recordkeeping practices and accounting conventions.

21. The conduct of economic census should be seen as an integral part of the economic statistics programmes in countries where access to administrative data is very difficult or when such data are fragmented, insufficient and of a poor quality. Despite their high costs, economic censuses should be conducted at regular intervals (at least once every five or ten years) in accordance with international standards, in order to establish sound benchmarks of basic economic statistics. To reduce the costs of economic census data, complete enumeration should be limited to a few topics, with other items investigated on a sample basis. Also, significant efforts should be made to integrate various industry censuses to the extent possible to reduce the costs of mounting separate efforts.

22. Countries are encouraged to apply thresholds in the conduct of censuses, as this is an effective way to maximize their cost efficiency, and, at the same time, to highlight the necessity to develop appropriate methods to account for economic activities of units below the threshold including use of available administrative data sources and informal sector surveys.

23. It is a good practice to collect not only the identification variables such as name and physical location of the unit, legal organization, type of ownership, kind of activity, etc., but also the economic variables which are needed for building stratified samples as well as for obtaining of a broad picture of country's economy. Such economic variables may differ from industry to industry but normally they include number of persons employed, turnover, capital, etc.

Economic sample surveys

24. *Advantages of sample surveys.* Economic census will continue to play an important role in the national programmes of economic statistics of African countries global data collection strategy. However, as economic censuses are infrequent and limited in terms of data content, it is a good practice to complement them by periodic (annual, quarterly or monthly) sample surveys, which can provide up-to-date measure of the economic activity by collecting more detailed sector specific data.

25. Economic sample surveys aim at obtaining data about the activities of a large population of economic units by selecting only a fraction of the units (sample) of that population. Conclusions about the total population of units are made on the basis of the estimates obtained from the sample survey data. The sample survey approach is a less costly way of data collection as comparing to the economic census. Since economic sample surveys are operated on a smaller scale than economic censuses and are easier to monitor and control, they can be conducted more frequently to provide information on

short-term dynamics of economic sectors and sub-sectors. It is a welcome development that economic sample surveys are more and more actively used for the collection and compilation of basic economic statistics in the African region.

26. *Need for reliable sample frame.* Availability of a sampling frame of the statistical units is a prerequisite for conducting sample surveys as it provides a basis for the selection of the sample units. Depending upon the source of the sampling frame, surveys may also be classified as either list based or area based. In a list based survey, the initial sample is selected from a pre-existing list of enterprises or households. In an area based survey, the initial sampling units are a set of geographical areas. After one or more stages of selection, a sample of areas is identified within which enterprises or households are listed. From this list, the sample is selected and data collected. It is a good practice to consider data needs, available infrastructure and resources before making a decision on what kind of survey should be undertaken. However, the best practice is to base the sample surveys on a sound and up-to-date business register.

27. *Establishment and maintenance of statistical business register.* The unavailability of reliable survey frames/lists is one of the most impeding factors for the conduct of economic surveys programmes in the African region. In this connection, countries are encouraged to develop strategic programmes to establish/improve survey frames, preferably using existing administrative registers, inputs from economic censuses and other existing data sources. Also, it is a good practice to undertake a systematic profiling of large enterprises to ensure availability of the reliable information about them in the business register.

28. *Promotion of an integrated approach.* Countries are encouraged to adopt an integrated approach to surveys design and implementation in order to improve their efficiency in terms of use of common classifications, to ensure more uniformity in definition of data items, to avoid duplication in collection arrangements and to reduce data collection costs and the response burden.

29. *Selection of an appropriate statistical unit.* Countries are encouraged to use the establishment as the most appropriate statistical unit in order to ensure the compilation of homogeneous and geographically distributed data and also to ensure compliance with the requirements of SNA 2008. However, as the choice of statistical units reflects a trade-off between data availability and the homogeneity of the economic activity, the enterprise can also be chosen as a statistical unit in some cases. As a matter of fact, in African context, most enterprises have a single establishment and hence coincide with their establishment.

30. *Special attention to surveys of particular activities.* Economic activities such as agriculture, construction, mining and quarrying, manufacturing, retail trade and services sector in general, remain the important basic economic activities in the African region and as such, should be given more attention in any work geared towards the improvement of the compilation of basic economic statistics, especially in the economic surveys programmes. Countries are also advised to establish a medium-to-long term plan for an

effective compilation of short-term economic statistics in order to be able to monitor the short-term dynamics of the various economic activities in these economic sectors and sub-sectors.

3. Use of administrative data

31. The use of administrative data remains a problem area for most of African countries. However, it is a good practice to systematically work towards incorporation in economic statistics programmes of more administrative data as, in the long run, this is one of the more direct ways to increase efficiency of statistical operations in view of limited financial and human resources.

32. *What are administrative data?* Administrative data encompasses any record resulting from fiscal, taxation or other requirements, created to facilitate the administration or operation of government programmes, or to supervise and oversee compliance with legal obligations by certain segments of the society.

33. *Advantages of administrative data.* One of the main advantages of using administrative records for statistical purposes relates to cost. Surveys are generally expensive, especially when they take the form of censuses or personal interviews. Administrative data, in contrast, generally cost nothing, particularly if they originate in the public sector. Even where there is a cost, expenditure and resources used in data collection and processing are bound to be less than if the same data were obtained through a specific survey. Given the size and scope of statistical business registers, it would be difficult to create and maintain them satisfactorily through survey data alone, therefore it is a good practice to make efforts to increase the use of information obtained from administrative sources. The use of administrative data also helps to reduce the form-filling, burden on respondents. Completing questionnaires for statistical purposes may often involve duplication of effort for the respondent unit if the same data have already been reported to other government bodies. A side-benefit is that in some cases the use of administrative records may allow certain statistics to be produced with greater frequency, at no additional cost to the informants.

34. Administrative data generally guarantees a greater coverage of the target population, whereas sample surveys normally cover only a relatively small proportion directly. Data obtained from administrative sources have the advantages of not introducing sampling and other errors inherent in the survey process, dealing with a smaller number of non response errors, and allowing for more specific subpopulations (geographic level, size of firm, economic activity). Coverage is particularly important from the stand point of statistical business registers, since these have to encompass all economic units active in the country. In that regard, the use of administrative data is the necessary prerequisite for the building and updating of business registers. Finally, making use of existing administrative data can enhance the prestige of the national statistical office by making it seem more efficient.

35. *Drawbacks of administrative data.* Although there are many advantages in using administrative records, there are some drawbacks. One of the main difficulties encountered is the discrepancy between administrative and statistical concepts. Administrative data are not produced initially for statistical purpose and the corresponding needs and priorities may differ from those of the statistical system. In the public sector for example, administrative records are generally created for taxation or control purposes and are subject to legislation and/or political changes which may induce risks in terms of stability. Variables may also be defined differently as a result, it is necessary to convert administrative units into statistical ones.

36. Similarly, the classification systems used in administrative records may differ from those used by the statistical office; and even if they are the same, they may be applied differently, depending on the main objective of the administrative data source. When classification systems are different, it is usually necessary to construct conversion tables to transform the codes used by the administrative classification into those required by the statistical body. This can result in a precise codification at more aggregate levels, but not necessarily at the level of individual units.

37. Another frequent problem in using administrative data relates to the temporal availability of data, since these may not be available on a timely basis to meet the needs of the statistical office, or they may relate to a reference period that does not match the statistical purpose. In general there will always be a lag between the occurrence of an event in the real world and its recording in the administrative source, followed by a further delay until it is incorporated into the statistical body. Lags relating to enterprise births and deaths are one of the major sources of coverage error in statistical registers.

38. *Verification of administrative data.* When a variety of administrative sources are used, the statistical office faces a problem of data verification. This process will be facilitated if there is some common identification code (or number) in the records. If not, verification will have to use other variables, such as name, address and activity code, etc. In that case, it is likely that a certain proportion of verification errors will require visual investigation for confirmation. Data inconsistency is another problem that arises when using multiple sources. Data from one source may contradict those of another, as a result of different definitions, classifications or even error in one of the sources. It is a good practice to foresee such a problem in advance and make plans for its resolution. To resolve conflicts of this type, rules of priority need to be established to decide which source is most reliable for each variable. Once sources have been priority-ranked for each variable, it will be possible to ensure that figure from a high priority source will not be replaced by another of low priority.

39. If more than one source is possible, a crucial question is related to the identification of the best alternative. Although there is no straightforward answer to this question, a combination of steps can be taken to reach a decision. Data sources should be compared in terms of variable coverage and precision, preferably through some kind of quality survey, to determine the correct values of the variables in question. To this end, a factor that should be taken into consideration is the ability of the national statistical office

to influence the preparation of the administrative record, by making suggestions or participating in the definition of concepts, variables classifications and so forth, in order to enhance the final quality of the administrative data collected.

40. *Increasing use of administrative data as a long term strategy.* The importance of the use of administrative data in the compilation of basic economic statistics cannot be overemphasized, not only as a tool to reduce respondent burden but also for most African countries, as a tool for compensating the relative lack of resources for conducting appropriate surveys in number, coverage and frequency. As such, the role of administrative data sources for economic statistics should be clearly acknowledged and included in the long-term programmes for the development of national statistics as well as the necessary specific action plans for the enhancement of their use.

41. To meet the priority needs of key data users in a timely, cost-effective and efficient manner with data of adequate quality, national statistical offices should use a balanced mix of administrative records, censuses and sample surveys. Although statisticians tend generally, to be wary of the quality of administrative data in terms of concepts and coverage, maximum use of existing administrative data sources should be encouraged.

42. A more extensive use of administrative data is recommended to be a part of a long term strategy to improve quality of basic economic statistics and make data compilation more cost efficient; in this connection issues of confidentiality, quality and access to administrative data should be on top of the agenda of any inter-agency body responsible for cooperation on statistical matters. As such, a more active work is needed with administrative data sources in order to comply with the established confidentiality laws and at the same time solve the problems which statistical offices are facing.

43. *Need for more effective institutional arrangements.* An extended collaboration between national statistical offices and other government agencies and line ministries is recommended in order to harmonize the practices in the compilation of administrative data and take adequate measures to broaden the scope of these data sources and reach a greater coverage of the units. As such, the establishment of an atmosphere of “goodwill” is a necessary precondition for an effective and beneficially cooperation between statistical offices, other government institutions and the respondents.

44. National statistical offices should also institute mechanisms for statistical audit of administrative records to improve the quality of information derived from these sources. They should therefore, develop a mechanism to: (i) keep abreast of administratively collected data held by other government bodies; (ii) evaluate each new data request to determine the extent to which it can be met by available administrative records without resorting to a new or expanded sample survey; (iii) negotiate with custodians of the relevant data to determine how the data can be shared within the legal framework of government information activities and; (iv) assist other national agencies in designing and exploiting their administrative systems in order to provide good quality statistics that

are as compatible as possible with the other data produced within the national statistical system.

45. It is also necessary to broaden the spectrum of services provided by national statistical offices to other government institutions. These can include quality assessment of administrative data obtained from them, assistance in correct implementation of various statistical methods and approaches, preparation of analytical studies, etc. It is also important to organize joint training for the staff of statistical offices, institution and organizations, providers of administrative data for the achievement of better understanding and strengthening their cooperation.

4. Statistical business register

46. *A concept of a statistical business register.* Statistical business register (SBR) is fundamental to the compilation of economic statistics in providing the necessary tools for identifying the universe of productive units active in the economy, preparing sampling frames for the conduct of business surveys, while also serving other purposes such as studies on business demographics, and statistics on the productive base, with breakdowns by size, economic activity and geographic characteristics. The register needs to contain data relating to enterprise identification, type of activity, variables indicating size, and other elements that make it possible to track a firm's life history.

47. *Need in a regular updating of SBR.* To ensure it remains current, the register must be updated at least once a year to record units' births and deaths and capture changes of address and stratification variables. The most effective methods for updating the statistical business register combine the use of information from administrative records and data from statistical surveys. Administrative records have the advantage of covering the entire enterprise universe, while surveys offer potentially more complete information although for a more restricted population.

48. *Steps to establish SBR.* The task of constructing and maintaining a statistical business register is complex, but it can be greatly facilitated if supported by information originating in administrative records. As such, countries with no business register are encouraged to start with existing administrative records/registers and develop their own statistical register which will be used for the conduct of subsequent statistical surveys and to establish a sound updating and maintenance policy using the feedback received from statistical surveys. In this context, apart from specific legislation allowing administrative records to be used for statistical purposes, it is essential to establish a cooperation policy with the bodies that supply such records, since the ability to influence the design or reformulation of administrative systems stems from mutual understanding of the needs of each party involved.

49. *Availability of good quality administrative data as precondition for effective maintenance of SBR.* It is important however, to ensure the "fitness for use" of these administrative records, that is to evaluate major aspects of these records with respect to

quality, coverage, definition of concepts, methodologies, classification and the variables investigated, before adopting them as a source for the updating of the statistical business register. Also, an existence of a good business register is not a guarantee that births of important economic units can be always captured in a timely manner. In this connection countries are advised to consider establishing additional mechanisms to ensure capturing the emergence of such units.

50. Although most African countries lack of a comprehensive and up-to-date business register for their economic surveys' programme, it is worth noting the encouraging fact that the majority of these countries do maintain at least "in-house statistical frames" for the conduct of their surveys. As such, countries are encouraged to use these frames as a basis, along with existing administrative records, for building comprehensive and up-to-date statistical business registers which in turn will enhance the whole statistical data production process.

5. Informal sector

51. *The concept of an informal sector.* Since its first appearance in the early 1970s, the term *informal sector* is widely used in economic statistics to refer to the activities not covered by the existing, conventional sources of statistics. The informal sector is only one of the components of the non-observed economy¹², which also includes illegal activities such as the production and trade of narcotics, traditional alcohol or adulterated drinks, etc., and the underground economy whose principal characteristic is that it is similar to the activities registered production units seek to hide from the government in order to pay fewer taxes. However, activities performed by production units of the informal sector are not necessarily performed with the deliberate intention of evading the payment of taxes or social security contributions, or infringing labor or other legislations or administrative provisions. Accordingly, the concept of informal sector activities should be distinguished from the concept of activities of the hidden or underground economy.

52. In January 1993, the 15th ICLS adopted a *Resolution concerning statistics of employment in the informal sector* to assist national statistical offices in developing definitions, classifications and methods of data collection for the informal sector. The resolution covered issues relating to the definition of the informal sector and the design, content and conduct of informal sector surveys. The informal sector definition adopted formed part of the 1993 SNA although chapter IV of the 1993 SNA reproduced only the main parts of the definition.

53. *The ICLS definition of the informal sector.* The ICLS defined the informal sector as a highly heterogeneous sector, encompassing production units of different features with a wide range of economic activities, as well as people (i.e. workers, producers, employers) working or producing under many different types of employment relations and production arrangements. As such it is broadly characterized as consisting of units

¹² See "Measuring the Non-Observed economy: A Handbook", OECD 2002.

engaged in the production of goods and services with the primary objective of generating employment and income to the persons concerned. These units typically operate at a low level of organization, with little or no division between labor and capital as factors of production. Labor relations – where they exist – are based mostly on casual employment, kinship or personal and social relations rather than contractual arrangements with formal guarantees.

54. According to this definition, the informal sector can be regarded as a group of production units which form part of the household sector as household enterprises or, equivalently unincorporated enterprises owned by households. Production units of the informal sector have the characteristics features of households' enterprises. The fixed and other assets used do not belong to the production units as such but to their owners. Also, expenditure for production is often indistinguishable from household expenditure. Similarly, capital; goods such as buildings or vehicles may be used indistinguishably for business and household purposes.

55. Within the household sector, the informal sector comprises (i) informal enterprises owned and operated by own-account workers, either alone or in partnership with members of the same or other households, which may employ contributing family workers and employees on an occasional basis, and (ii) enterprises of informal employers which consists of enterprises owned and operated by employers, either alone or in partnership with members of the same or other households, which employ one or more employees on a continuous basis.

56. Informal enterprises are a sub-set of households unincorporated enterprises, i.e. enterprises owned by individuals or households that are not constituted as separate legal entities independently of their owners with at least some production for sale or barter on the market, and for which no complete accounts are available that would permit a financial separation of the production activities of the enterprise from the other activities of its owner(s). Fixed and other capital used does not belong to the enterprise as such but to the household members.

57. It is a good practice, for operational purposes, to define enterprises of informal employers, depending on national circumstances of African countries, in terms of one or more of the following criteria: (i) the size of informal sector enterprises in terms of employment, below a nationally determined threshold; and (ii) non-registration of the enterprises or its employees. Informal sector enterprises should not be registered under specific forms of national legislation such as factories' or commercial acts, tax or social security laws, professional groups' regulatory acts, or similar acts, laws or regulations established by national legislative bodies.

58. While the size criterion should preferably refer to the number of employees employed on a continuous basis, in practice, it may also be specified in terms of the total number of employees or the number of persons engaged during the reference period. The upper size limit in the definition of enterprises of informal employers may vary between countries and branches of economic activity. The choice of the upper size limit should

take account of the coverage of statistical inquiries of larger units in the corresponding branches of economic activity, where they exist, in order to avoid an overlap.

59. The importance of the informal sector in African countries comes not only from its significant share with respect to the GDP, but also from its socio-economic role as a provider of employment and income to a large portion of the population. As such, the compilation of statistics reflecting informal sector should be part of countries' economic statistics programme. In this connection countries are encouraged to extend the coverage of the surveys and censuses to units of the informal sector and to keep it as a regular practice in the production and dissemination of basic economic statistics in the African region.

60. African countries are advised to adapt to their local circumstances existing international standards and recommendations on the informal sector such as the recommendations of Delhi Group (see annex 1) and the recommendations included in the SNA 2008, and use them as guidelines for reviewing their own practices and developing appropriate compilation methods in order to achieve a greater coverage of the informal sector. Annex 2 of this manual describes the main approaches used for the measurement of the informal sector including the household surveys, the establishment surveys, the household income and expenditure surveys, and the mixed household-enterprise surveys.

6. Basic economic statistics and national accounts

61. One of the main objectives of establishing sound programmes of basic economic statistics is compilation of reliable national accounts. The national accounts represent a system that serves as a coordinating framework for economic statistics. It ensures the consistency of concepts, definitions and classifications used in different but related fields of statistics. It also ensures the consistency of data obtained from sources like establishment, enterprises and households surveys. Data collected from these sources enable not only to calculate key aggregates such as the gross domestic product (GDP) but also to analyze the economic interaction between the different economic sectors and within the framework of the whole economic activity. Most of the various data collected under each and every economic activity contribute to the compilation of national accounts. For example, data on identification particulars, employment, earnings, output and intermediate consumption are specifically needed for the compilation of data on gross domestic product (GDP).

62. The System of National Accounts (SNA) in its 1968, 1993 and 2008 versions is the internationally agreed standard set of recommendations on how to compile measures of economic activity in accordance with strict accounting conventions based on economic principles. The SNA is designed for economic analysis, decision-making and policy-making, whatever the industrial structure or stage of economic development is reached by a country. However, compilation of national accounts in African countries remains in general a very challenging task and most countries are still at the very beginning of the implementation process of 1993 SNA. For many of these countries, the national accounts

compiled are still largely based on the 1968 SNA and only a few countries are compiling the set of accounts beyond the production account, quarterly national accounts and financial accounts.

63. Two levels of difficulties are generally identified in the process of compilation of national accounts: the first level refers to the availability and quality of data sources, and the second level refers to the processing of data from these sources into national accounts. Very often, within the national statistical offices, the lack of coordination between the various data collection and processing units implies that even in cases, where adequate data sources exist, the national accounts can still lack adequate data for their compilation. Also, in most African countries, national statistical offices are short of adequate human and financial resources to process available data into national accounts consistent with the SNA.

64. As the provision of a quality data to national accounts compilers remains one of the main tasks of their basic economic statistics programmes, countries should take into account as much as possible, the data requirements of SNA. In particular, it is important to ensure that the SNA concepts are used in the surveys and censuses through involvement of national accountants at the various stages of statistical operations. At the same time however, needs of SNA should be balanced with needs of other users such as industry, socio-economic policy makers, etc. It is a good practice to establish and maintain effective working arrangements between statisticians compiling basic economic data and national accountants to review regularly the methodologies, data sources and data compilation practices to ensure more effective functioning of national statistical offices.

65. Further, African countries are encouraged to establish an integrated national system for the collection and compilation of economic statistics data which addresses the needs of the SNA, in collaboration with other bodies of the national statistical system including the Central Bank, line ministries and other government agencies (tax revenue, customs, etc.), in order to avoid the duplication of efforts in the collection of the relevant data through surveys, censuses and use of administrative data sources.

7. Data quality and metadata

66. Basic economic statistics is a result of a complex production process comprising many stages starting from the collection and processing of data to compilation and dissemination of statistics. In each of these stages statisticians need to assess the quality of the data production process and at the same time anticipate and control potential problems which can introduce errors to the point of rendering the end results useless. The ultimate goal is to enhance the overall quality of their data by making sure that all systems and procedures are well-planned, tested and monitored to ensure that they are performing as expected and to take corrective actions in case the standards are not achieved.

67. It is a good practice to incorporate quality assurance activities as well as compilation and dissemination of metadata in economic statistics programmes and periodically review their effectiveness. National statistical offices of African countries need to continue their efforts in this direction. In particular, the provision of information about data quality and metadata to users of economic statistics is the area where more progress is needed to ensure that users understand the purpose, contents and scope of the data, are better positioned to manipulate and analyze the data as well as to evaluate if the data meet their needs.

68. There is a bidirectional relationship between metadata and quality: metadata describes the quality of statistics while being at the same time a quality component which improves the availability and accessibility of statistical data. Therefore, the tasks of achieving a high quality basic economic statistics and provision of the comprehensive metadata are interlinked and can be effectively dealt with only in an integrated way. A number of African countries are making noticeable progress in this direction. However, a lot still has to be done and good practices in this area of statistical work have to be systematically identified and promoted. The sections 7.1 and 7.2 describe main elements of such practices while additional details are available in Annexes 3 and 4, respectively.

Enhancing data quality of economic statistics

69. Quality has always been one of the obvious requirements of statistics, although the notion of quality, including in African countries, has changed over the years. Years ago, quality in the sense of reliability or accuracy might have been a fundamental prerequisite for a statistical office whose role was seen primarily to produce and publish facts as a base for debate, decision making and research. Data must be accurate otherwise they might lead to wrong conclusions. They must also be reliable otherwise they will not be used. However, even if data are accurate, they cannot be said to be of good quality if they are produced too late to be useful, or cannot be easily accessed, or appear to conflict with other data, so quality is increasingly understood as a more broad concept.

70. *Concept of quality.* Quality is seen nowadays as a multifaceted concept firmly linked to user perspectives, needs and priorities. Quality measurement of economic statistics is concerned with providing the user with sufficient information to judge whether or not the data are of adequate quality for their intended use, i.e. to judge their “fitness for use”. Therefore, it is a good practice to treat the work with the user community as one of the most essential components of the national programmes of economic statistics. Data users must be able to verify that the conceptual framework and definitions that would satisfy their particular data needs are the same as, or sufficiently close to those employed in collecting and processing the data. Users need also to be able to assess the degree to which the accuracy of the data and other quality factors are consistent with their intended use or interpretation.

71. *Dimensions of quality.* It is a good practice to identify quality dimensions and to undertake steps and measure them even if in the beginning this task seems to be difficult and uncertain. The following eight dimensions of quality (see Annex 3) should be taken

into account by African countries for measuring and reporting the quality of their statistics in general and basic economic statistics in particular – prerequisites of quality, relevance, credibility, accuracy, timeliness, methodological soundness, coherence, and accessibility.

72. These dimensions of quality are overlapping and interrelated. There is no general model that brings them together to optimize or to prescribe a level of quality. Achieving an acceptable level of quality is the result of addressing, managing and balancing these elements of quality over time with careful attention to program objectives, costs, respondent burden and other factors that may affect information quality or user expectations. As the elements of quality form a complex relationship, an action taken to address or modify one aspect of quality will tend to affect other elements of quality. Thus the balance of these factors may be altered in ways that cannot be readily modeled or adequately quantified in advance. This balance is a critical aspect of the design of the surveys conducted by the statistical agency. The decisions and actions which achieve this balance are based on knowledge, experience, reviews, feedback and consultation, and inevitably on judgment.

73. *Developing national quality assessment frameworks.* Various international organizations and countries have developed data quality assessment frameworks, outlining the various dimensions of quality and quality measurement and integrated them into quality assessment frameworks. Although the existing quality assessment frameworks differ to some extent in their approaches to quality and number, name and scope of quality dimensions, they complement each other and provide comprehensive and flexible structures for the qualitative assessment of a broad range of statistics. National statistical offices of African countries are encouraged to assess those frameworks in the context of their country needs and to develop on their basis the national quality assessment frameworks that fit best their countries practices and circumstances.

74. *Measuring data quality and reporting on data quality.* The measurement of the quality of any statistical data, including basic economic statistics, is not a simple task. Problems arise from the difficulties involved in quantifying the levels of individual dimensions and in aggregating the levels of all dimensions. Under these circumstances, deriving a single quantitative measure of quality is not possible. In the absence of such a single measure, countries are encouraged to use a system of quality measures/indicators based on their own quality assessment frameworks and to regularly issue quality reports as part of their metadata. The quality framework offers responsible agencies a practical approach to providing data that meet different users' needs, while the provision of quality information allows users to judge for themselves whether a data set meets their particular quality requirements. It is a good practice that a quality review of basic economic statistics be undertaken every four to five years, or more frequently if significant methodological or other changes in the data sources occur.

75. *Quality indicators.* Quality indicators are summarized quantitative data that provide evidence about the quality or standard of the data produced by national and international statistical agencies. They are linked to the achievement of particular goals or

objectives. Unlike ordinary raw statistics, quality indicators are generally conceptualized in terms of having some reference point and, so structured, can assist in making a range of different types of comparisons.

76. Quality indicators usually consist of information that is a by-product of the statistical process. They do not measure quality directly but can provide enough information for the assessment of a quality. For example, in respect of accuracy, it is almost impossible to measure non-response bias, as the characteristics of non-respondents can be difficult and costly to ascertain. In this instance, the response rate is often utilized as a proxy quality indicator to provide a measure of the possible extent of non-response bias.

77. It is not intended that all quality dimensions should be addressed for all data. Instead, countries are encouraged to select those quality measures/indicators that together provide an assessment of the overall strengths, limitations and appropriate uses of a given data set. Certain types of quality measures and indicators will be produced for each data item; for example, item response rate for total turnover can be calculated with each new estimate. Alternatively, some others would be produced once for all data items and would be rewritten only if there were changes. The latter case is exemplified in the description of survey approaches to data collection for the quality dimension “methodological soundness”, which would be applicable to all data items.

78. It is a good practice that countries, while defining the quality indicators for basic economic statistics, ensure that the indicators satisfy the following criteria: (i) they cover part or all of the dimensions of quality as defined previously; (ii) the methodology for their compilation is well established; and (iii) the indicators are easy to interpret.

79. *Types of quality indicators.* Quality indicators can be classified according to their importance as follows:

- (a) *Key indicators*, which ought to fulfill the criteria given above. Examples of key quality indicators are the coefficient of variation, measuring the accuracy of data obtained through sample surveys, and the time lag between the end of the reference period and the date of the first release of data, measuring the timeliness of distributive trade statistics;
- (b) *Supportive indicators*, which fulfill the criteria to the extent that they are considered important as indirect measures of the data quality. Such an indicator, for example, is the average size of revisions undertaken between the provisional and final estimates of a particular data set, which measures the accuracy of statistics;
- (c) *Indicators for further analysis*, which are subject to further examination and discussion on the part of statistical offices. After a careful analysis of statistical office capabilities and available resources, for example, some countries may

decide to conduct a user satisfaction survey and calculate a user satisfaction index for measuring the relevance of basic economic statistics.

80. It is recommended that careful attention be paid by countries to maintaining a correct balance between different dimensions of quality and the number of indicators. The objective of quality measurement is to have a limited set (minimum number) of indicators which can be used to measure and follow over time the quality of the data produced by the statistical office and to ensure that users are provided with a useful summary of overall quality, while not overburdening respondents with demands for unrealistic amounts of quality metadata.

81. *Minimum set of quality measures/indicators.* Table 10 below presents a limited set of key indicators¹³ which African countries are encouraged to use on a regular basis for measuring the quality of basic economic statistics. Their utilization is easy to implement and they provide users with a clear and up-to-date overview of the overall quality of statistics.

Table 10: Key indicators for measuring the quality of basic economic statistics

| <i>Quality dimension</i> | <i>Quality measure/indicator</i> |
|--------------------------|---|
| Relevance | R ₁ . Identification of gaps between key user interests and compiled data in terms of concepts, coverage and detail R ₂ . Conducted users' satisfaction surveys |
| Accuracy | A ₁ . Sampling errors - Coefficient of variation A ₂ . Non-sampling errors - Unit response rate - Item response rate A ₃ . Quantity response rate (e.g., percentage of total sales reported) A ₄ . Number and average size of revisions of data |
| Timeliness | T ₁ . Time lag between the end of the reference period and the date of the first release (or the release of final results) of data |
| Methodological soundness | MS ₁ . Number and rates of divergences from the relevant international statistical standards in concepts and measurement procedures used in the collection/compilation of statistics |
| Coherence | CO ₁ . Comparison and joint use of related data sets from different sources |
| Accessibility | AC ₁ . Number and types of means used for dissemination of statistics AC ₂ . Data sets made available, by mode of dissemination, as a percentage of total statistics data sets produced |

¹³ For more quality indicators, see the European Statistics Code of Practice, at: http://epp.eurostat.ec.europa.eu/portal/page?_pageid=2273,1,2273_47140765&_dad=portal&_schema=PORTAL; the IMF Data Quality Assessment Framework website at: <http://dsbb.imf.org/Applications/web/dqrs/dqrsdqaf/>; and the United Kingdom of Great Britain and Northern Ireland Office for National Statistics, *Guidelines for Measuring Statistical Quality*, at: <http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=13578>.

Metadata for economic statistics

82. Even if most African countries now produce some metadata there is a lot of room for improvement in this area as metadata, especially metadata available to users, is not complete and access to it is very often restricted and/or not user friendly. It is one of the areas where further efforts are very much needed and may produce noticeable results in a rather short period of time.

83. *Concept of metadata.* The term metadata defines all information used to describe other data. A very short definition of metadata, then, is “data about data.” Metadata descriptions go beyond the pure form and content of data to encompass administrative facts about data (who has created them and when), and how data were collected and processed before they were disseminated or stored in a database. In addition, metadata facilitate an efficient search for and location of data. Metadata describe or document microdata, macrodata or other metadata and facilitate the sharing, querying and understanding of data. It refers also to any methodological descriptions on how statistics are collected and manipulated. For example, metadata include the name of the data item, the unit from which the information has been collected, data sources, information about classifications used and series breaks, and definitions and methodologies used in their compilation.

84. *Users of metadata.* Without appropriate metadata, it would not be possible to fully understand basic economic statistics or to conduct international comparisons. The most fundamental purpose of metadata is to help users of economic statistics data to interpret, understand, and analyze the data, even if they have not themselves participated in the process of production of these data. In other words, metadata should help users to transform statistical data into information. Users of metadata include not only those who are outside of the statistical process, but also producers of economic statistics as they need to monitor and analyze the efficiency of their operations. However, there is an important distinction between an “in-house user” and an external user of statistical data that should be taken into account when designing and disseminating metadata. Producer-users have meaningful relevant pre-knowledge due to their own participation in the design and operation of the statistical production processes. Thus, in-house producer-users will not have the same need for metadata as external users, who have not participated in the design and production of the statistical data. The wide range of metadata users means that a broad spectrum of metadata requirements have to be addressed by national statistical offices in their efforts for producing and disseminating high quality economic statistics.

85. *Metadata and production of high quality statistics.* Economic statistics metadata help also producers of statistics. The new knowledge gained from interpreting the data may also lead to both production and dissemination enhancements by lowering the costs and improving data quality, and by facilitating the dissemination of comprehensive, timely, accessible and reliable data. Metadata helps the producer of statistical data develop new, improved processes by informing about relevant methods and tools, how they can be used, and what the experiences from earlier applications are. Metadata is also

a tool for modifying work process to improve data quality or reduce costs. Reductions in costs can also result from the reuse of metadata from a previous implementation. In the form of prior experience, metadata, whether recorded or from personal knowledge, is useful for the production and use of economic statistics data, from the initial planning stages of surveys and censuses through the dissemination and use of the final datasets. In this context, documenting procedures with respect to what work and what didn't will help make better future choices and avoid pitfalls. The more relevant metadata is available in the designing or implementing phase of a particular procedure, the more likely the specification or end results will be of better quality.

86. The wide range of possible users and uses means that a broad spectrum of metadata requirements has to be addressed. It is a good practice to make sufficient metadata available to enable both the least and the most sophisticated users to readily assess the data and their quality. It is recommended that segmentation of users into groups and a layered approach to metadata presentation, in which each successive layer provides more detail, be accepted by countries. As a minimum segmentation, metadata at the following two levels are recommended:

- (a) Structural metadata presented as an integral part of the data tables;
- (b) Reference metadata providing details on the content and quality of data which may accompany the tables or be presented separately via the Internet or in occasional publications.

87. Metadata is also, a suitable tool for the promotion of international comparability of data as it provides a mechanism for comparing national practices in the compilation of statistics. This may help and encourage countries to implement international standards and to adopt best practices in the compilation of economic statistics in the African region. A better harmonization of approaches adopted by different countries will improve the general quality and coverage of key statistical indicators.

88. *Importance of metadata for African statistical systems.* It is important for developing countries in general and African countries in particular, which are undergoing rapid change in their statistical systems, to compile and provide to users comprehensive descriptions of the methodologies underlying the statistical series presented in their publications. Such information is essential to users both within and external to the agency responsible for collecting and compiling the data. Unfortunately, in the case of the African region, many countries still provide only minimal information on the methodologies used to compile their key statistics. The paucity of information currently provided, sometimes originates from fear of criticism about the quality and coverage of the statistics that they produce. However, in reality the opposite is true. In fact, by being more open about both the strengths and weaknesses of existing data, the users will be in a better position to correctly analyze the statistical data provided. There is also a greater likelihood that a wider understanding of the problems/issues of data collection throughout the user community (especially in key government ministries) will help bring about the required changes and improvements.

89. The provision of metadata in developing countries in general and African countries in particular, requires the adoption of a more systematic approach by national statistical offices in the compilation and presentation of sufficient detail about the methodologies used in both their statistical collections and in administrative statistics obtained from other agencies in the national statistical system. It requires considerable thought on the part of national statistical offices as to what aspects of methodology are important and which will have considerable impact on how data may be used. These may vary from subject to subject and from user to user. Therefore, knowledge of the main uses of the data is essential. This entails statisticians in national statistical offices developing a close understanding of how their statistical data are used by users and analysts both within and outside their organization.

90. *Metadata dissemination.* Efficient dissemination of metadata requires integration of data and metadata when these are disseminated by electronic media and other supports providing links facilities (e.g. Internet facilities, diskette, CD-ROM, etc.). The integration of data and metadata means that metadata is readily accessible directly by users when they consult the statistical data. For example, data disseminated by paper publication requires appropriate cross-referencing to metadata that users can access directly if required. More specifically, data and metadata should be linked in such a way that users can select the metadata items they really need for different countries and different indicators.

91. Detailed and comprehensive metadata need to be widely disseminated to all users of statistics. When disseminated through electronic products, metadata should be easily downloadable, along with the data, into a standard spreadsheet for further use. Appropriate metadata also implies the on-going maintenance of metadata, and effective signaling to users of changes in statistical methodology that may influence analysis and interpretation of the data. The quality and coherence of the disseminated metadata is crucial for its use by internal and external users.

92. Countries are encouraged to accord a high priority to the development of metadata and to consider their dissemination an integral part of dissemination of economic statistics. Countries are also encouraged to follow existing international standards such as the IMF's SDDS and GDDS, in developing their own metadata program with the objective of achieving more transparency with respect to the user community. Annex 4 provides a non exhaustive list of metadata components that countries are encouraged to use in order to establish their own list of metadata according to their own circumstances.

8. Dissemination and work with users

93. *Importance of dissemination.* Dissemination is the release through various media of the statistical outputs to the broad community of users. Disseminating basic economics statistics to users involve reducing a large set of information into concise and important details while indicating the strengths and weaknesses of the particular data sets. It is

important to underscore that dissemination does not simply complete certain statistical cycle but critically impacts on overall efficiency and sustainability of the statistical process. A well organized dissemination increases relevance of the statistics and motivates respondents to participate in statistical surveys thus contributing to enhancing data quality while poor dissemination practices will undermine public trust in statistics with all its negative consequences.

94. African countries are encouraged to pay a significantly more attention to the dissemination of basic economic statistics. This includes making economic statistics more easily accessible to user community and considerably more user friendly, launching sustainable promotion campaigns to better educate users on benefits they can derive from available economic statistics. In this context, it is a good practice to make the public aware of the release dates of the main series of economic statistics, to honor those dates and to make release of such statistics a public event, including the invitation of mass media.

95. *Dissemination and timeliness.* In producing statistical information there is usually a trade-off between the timeliness with which the information is prepared and the accuracy and level of detail of the published data. Timeliness and accuracy have been seen in preceding sections to be important quality dimensions for economic statistics. A crucial moment, therefore, for the well established relations between national statistical offices as producers of economic statistics and the user community is devising an appropriate compilation and release schedule. Also, in order to generate interest and maintain – and be seen to maintain – a position of neutrality, release data for survey results should be pre-announced. If unexpected circumstances arise, there should be a plan to explain the reasons for the delay.

96. *Dissemination and confidentiality.* If national statistical offices have the legal power to collect and disseminate statistical information, they also have the obligation to protect confidentiality of respondents. It is essential to gain and maintain the confidence of respondents to statistical surveys. In this context, the sixth United Nations Fundamental Principle of Official Statistics provides the basis for managing the statistical confidentiality: “Individual data collected by statistical agencies for statistical compilation, whether or not they refer to natural or legal persons are to be strictly confidential and used exclusively for statistical purposes.”

97. Confidentiality of economic statistics data can be assured through implementing disclosure control methods. The goal of disclosure control is to ensure that the confidentiality of the respondent is respected while preserving the usefulness of the data to the greatest extent possible. Disclosure occurs when an individual respondent (person, household, business, etc.) can be identified from the released data and confidential information is revealed as a result. For example, tables of magnitude containing numeric values such as means or totals of dollar values, or number of employees, present a disclosure risk especially when the data comes from a business survey. This is because the skewed nature of business data may cause some cells to be dominated by one or two large businesses, and releasing these cells’ values may yield a reasonably good estimate

of the values of these large contributors. Similarly, data from economic census, may provide a narrow (accurate) range of income for a given socio-professional category in a certain geographical area.

98. There are two main approaches used to protect the confidentiality of data: restricted access methods and restricted data methods. Restricted access methods prevent or restrict access to the data, for example, by limiting access to statistical facilities such as buildings, sites or servers to authorized staff, using password-protected files and encryptions, sharing data under the term of license agreement, etc. Restricted data methods include reduction methods (i.e., reducing the information released) and data perturbation methods (i.e., modifying the data). Before choosing a disclosure control method, various methods should be compared with respect to their impact on the data and the risk of disclosure.

99. Data reduction methods include: (i) cell collapsing: categories are grouped to increase the number of entries per cell (e.g., reduce the level of industrial detail provided); and (ii) cell suppression: when sensitive cells are suppressed, usually non-sensitive cells must also be suppressed, so that the sensitive cell values cannot be derived from the marginal total. These other cells are called complementary suppression cells, and many rules exist to choose which cells to suppress. The choice of which rules to apply in a specific case depends on the nature of the variable and the degree of protection sought.

100. Data perturbation methods include: (i) deterministic rounding: data in a cell are rounded according to a deterministic rule. However, this can result in bias, for example, the equality of rounded values with rounded marginal totals may not be maintained; (ii) random rounding: the direction of rounding is determined randomly. This method offers more protection than deterministic rounding because it is more difficult to estimate the original value; (iii) controlled random rounding: in this method, pre-defined aggregate margins are preserved; and (iv) adding noise: random noise can be added to table results, to introduce more uncertainty and decrease the disclosure risk.

101. As more and more large and complex enterprises are operating in African countries the national statistical offices face the issue of collecting the information about their activities and, at the same time, of protecting confidentiality of the collected data. In general, large units are more easily identifiable than small ones, and have a higher probability of being selected in trade surveys; and most likely, their data will dominate the totals in a number of cells, thus allowing identification of such units. As statisticians apply general rules of confidentiality with respect to these enterprises they need to do this in such a way as to minimize the loss of information. It is a good practice to explore various options including use of data from publicly available administrative sources and reaching agreements with those enterprises regarding release of some data. However, preserving the confidentiality remains an obligation and the trust of data reporters should not be compromised.

102. *Dissemination and data revisions.* The revisions represent an essential part of countries practices on the compilation of economic statistics. They occur as a consequence from the trade-off between the timeliness of published data and their reliability, accuracy and comprehensiveness. To solve these issues statistical offices compile provisional data that later are revised when new and more accurate information become available. Although, in general, repeated revisions may be perceived as reflecting negatively on the reliability of official data, the attempt to avoid them by producing accurate but very untimely data will result in failing to satisfy the users' needs. It is important to emphasize that the revisions are conducted for the benefit of users, namely, to provide them with data that are as timely and accurate as possible.

103. *Good practices in revision policy.* The development of a sound and transparent revision policy should not aim at impeding revisions but rather, should aim at providing users with the necessary information to cope with revisions in a more systematic manner. Essential features of a sound and transparent revision policy include among others: (i) consultations with users to elicit views about revisions practices; (ii) availability to users of a clear short summary statement of when to expect revisions and why; (iii) making sure that the current revision cycle is relatively stable from year to year; (iv) balancing the need for methodological or conceptual change with users' concern by introducing major revisions for a minimum period of at least four to six years; (v) making sure that revisions are carried back several years to give consistent time series; (vi) making documentation on revisions readily available to users via statistical publication and databases; (vii) reminding users about the size of the likely revisions based on past history and; (viii) making sure that when a mistake in reporting or processing is made, the revision is made in a transparent and timely manner.

104. *Dissemination formats.* Data can be disseminated both electronically and in paper publications. It is a good practice to use a range of the dissemination format that best suits the users' needs. For example, press releases have to be disseminated in ways that facilitate redissemination by mass media; more comprehensive or detailed statistics need to be disseminated in electronic and/or paper formats. If resources permit, current statistics and longer time series can be organized and accessed (free of charge or for a fee) through the electronic databases maintained by the statistical office. In addition to statistics that are routinely disseminated, statistical offices can make data available to users upon request. For some specific purposes, customized tabulations of data (non-standard activity classification, specific types of units, etc.) can be provided. It is advisable that countries ensure that users are clearly made aware of the availability of additional statistics and the procedures for obtaining them. It is a good practice also to promote searchable databases as they are the preferred means of dissemination for increasing number of users.

105. *Work with users.* A strong relationship should be developed between key users and producers of economic statistics data in order to articulate needs, facilitate assessment and prioritization of their needs, and develop strategies for meeting these needs. Adequate attention should be paid to identifying the minimum data sets that meet the priority needs for each economic/policy sector, taking into account capacities

available to produce data on a sustainable basis and the costs related to such undertaking. Assessment and prioritization of user needs should be reflected in national work programs, especially in the national strategy for the development of statistics.

106. A number of important mechanisms can be used for assessing and prioritizing user needs including: (i) continuous dialogue between data producers, planners and policy-makers, chambers of commerce and industry, trade unions, etc.; (ii) Creation of inter-ministerial committee of users and producers of data chaired by a high level person that would convene regularly, and technical working groups or task forces for key sectoral areas to determine the core set of national statistics to produce; (iii) discussions with policy-makers to channel the statistical system's response to changes in structure and focus, such as decentralization and the consequent needs for data at the sub-national level; (iv) meetings of users and producers of data to discuss the conduct and content of censuses and large-scale sample surveys and; (vi) symposia and workshops/seminars on various statistical themes.

107. Countries are encouraged to enhance the work with the user community as it is essential for ensuring trust in the statistical work, improving the policy relevance of the compiled statistics, mobilizing additional resources needed to ensure sustainability of the statistical programmes and, improving the visibility of national statistical offices.

9. Reducing the response burden and improving the response rates

Reducing the response burden

108. Caring for respondents is a precondition for effective functioning of national statistical offices, as respondents represent the primary source from which the required information is collected in African countries. The need to drastically reduce response burden is one of the major strategic challenges faced by national statistical offices in the African region. A successful response burden reduction programme is in the interest of both respondents and data compilers as data quality can be higher, response quicker and the response rates might rise, while collection cost fall.

109. The concept of response burden has two dimensions: a quantitative and a qualitative one. The first refers to cost in terms of time and money and the second to perception. A sound response burden policy should explicitly involve both aspects, because they are decisive for the willingness of respondents to cooperate. It is a good practice to improve coordination and integration of data collection activities of the economic statistics programme.

110. *Coordinated questionnaire design.* Individual surveys should be developed within the context of a coordinated survey strategy aiming at minimizing the number of questionnaires and contact points within the statistical office (respondents generally dislike receiving quantity of questionnaires from different departments of the office). For a new survey for example, it is important to consider first whether some of the needed

information can be obtained from an existing survey. Also, the number of contact points can be reduced by concentrating the survey activities in such a way that one particular respondent only communicates (or reports) to one department within the statistical office. Integration of questionnaires and clustering of surveys may not only reduce the perception of burden, but also contributes to the consistency of the reported data and thus to the quality of statistics.

111. *Coordinated delimitation of sampling frames.* Survey populations are often delineated according to fields of economic activity. Care should be taken so that a particular respondent is not classified in different groupings at the same time. This risk can be reduced by drawing samples for all such surveys from one unequivocal source, i.e. a centrally maintained business register. However, a true guarantee for avoiding overlaps demands more: the different surveys covering different classification code areas should apply the same type of statistical unit, as well as a uniform method and moment of determining their respective sampling frames in the business register.

112. *Coordinated sampling.* Without proper internal coordination within the statistical office, some statistical units may receive more forms than others, although these businesses are comparable in size, activity, etc. A powerful tool to spread the response burden is the combination of a centrally maintained business register and a comprehensive computer program for coordinated sampling.

113. *Information on response burden.* Although quite challenging, national statistical offices should aim at informing respondents in advance about the surveys they will be involved in. Ideally, the national statistical office should send a comprehensive listing of these surveys, including the average completion time of the questionnaire, at the beginning of each year. Moreover, it can be helpful to consider sending a listing of surveys for which they will be excluded from sampling, so as to prove that the spreading of response burden really works. Such practice is only possible with a very well planned and centrally organized survey strategy.

114. *Use of administrative data sources.* The use of reliable and timely administrative data sources can be a valid tool for reducing the response burden in economic statistics inquiries. Countries are encouraged to include the extensive use of administrative data sources as part of their long-term programmes for reducing the response burden and improving the quality of their basic economic statistics.

115. *Sound survey policy.* Countries are encouraged to establish a sound policy of survey design and data collection procedures based on a coordination of the various steps and actions both internally at the statistical office (central supervision of the delimitation of sampling frames and selection of the samples drawn), and externally by using existing sources of information, such as administrative registers, to the largest possible extent. A sound sample design and a user-friendly questionnaire are powerful tools against overburden. However, prior to all these measures, the possibilities to make use of existing administrative registers must be considered.

Improving the response rates

116. The issue of non-response is closely related to that of response burden. In fact, the degree of non-response can, to a certain extent, be an indicator for the burden as it is perceived by the respondents to statistical inquiries. A growing response burden is often accompanied by falling response rates. In this context, many of the measures directed towards reduction of the burden will have a positive effect on response rates as well.

117. Low response rates from the statistical inquiries conducted by national statistical offices, represent a common issue faced by African national statistical offices in their efforts to produce timely and reliable economic statistics. In order to bring change both in the culture towards reporting and in the approach to eliciting responses and to obtaining basic data, the issue has to be tackled at various levels.

118. It is good practice to maintain an active outreach and promotion programme to keep the respondents community aware of the importance of economic statistics and urge respondents to provide the needed information in a timely and accurate way. African national statistical offices should persistently work with political decision makers including senior ministries and the Central Bank to ensure their support. Establishing a nation wide Statistics Day can be a very helpful in this respect.

119. The statistical offices should keep the responsible governmental agencies aware of the needed resources to be able to follow up with respondents to obtain the necessary replies. Also, it is a good practice to place a greater reliance on the development of the statistical skills of the existing staff including in survey planning, sampling, edit, estimation and imputation procedures. In this context, countries are encouraged to use sound sampling and data processing techniques (e.g., imputation and weight updating techniques) to take into account the effects of non response and ensure the reliability and accuracy of estimates derived from their economic statistics surveys. However, this is only possible if the statistical offices are able to hire skilled staff and develop and implement their economic statistics programmes according to accepted international standards and practices. Cooperation with regional and international organizations for staff training is encouraged.

120. *Work with respondents.* A great deal of work needs also to be done with the respondents in order to improve the response rates. Because a statistical office relies on respondents' goodwill, their generosity and non-remunerated use of their time, an implicit contract is made with these providers of the data. In order to respect the implicit contract, the statistical office it is a good practice to consider the following factors during the planning of statistical inquiries:

- (a) Intrusion into privacy should be limited;
- (b) There must be no risk of indirect harm to the respondent for providing the required statistical information;

- (c) Confidentiality should be guaranteed to respondents: they should know that all information will be publicly released in a format that will prevent the disclosure of personal information;
- (d) In order for respondents to provide informed consent, they must be informed of: the purpose of the survey including the expected uses and users of the statistical inquiry; the authority (law) under which the data are collected; the collection registration details; the mandatory or voluntary nature of the survey; the identity of the parties to any agreements to share the information, etc.

121. Although legal proceedings exist in most African countries to help national statistical offices get the needed data from respondents, in the case of statutory statistical inquiries, the law enforcement is to be considered the last resort and in most cases a reserved policy is advised. In addition, sensitizing the respondents on the importance of economic statistics inquiries, and creating a true partnership along with building trust and personal relationship with the respondent are among the most recommended ways of improvement of the response rates.

122. The following measures are generally considered good practices aimed at increasing the response rates in basic economic statistics surveys:

- (a) Dispatch survey questionnaires around the dates data are supposed to be available;
- (b) Set the final return date not too far away, for example, not more than two weeks for quarterly surveys, so as to avoid respondents to forget about the questionnaire;
- (c) Ensure follow-ups by sending reminders within a week after final return date. Telephone reminders give higher scores than written reminders, but are more expensive. Therefore, start with one or two written and end with a telephone reminder;
- (d) Give priority to larger businesses, especially with respect to expensive actions, such as personal visits;
- (e) Permit in some cases “guess estimates” especially, for those respondents who are willing but not able to deliver the required data in time;
- (f) Always contact respondents - quickly after return- who only partly complete the questionnaire or report implausible data, so as to avoid the impression that their behavior does not matter;
- (g) Invite respondents to contact the statistical office in case of questions and make sure that there is always a qualified staff member to answer;

- (h) Make sure that the mailing list is based on up-to-date information, so as to avoid misaddressing;
- (i) Try to make appointments with contact persons and mention name and coordinates on the address label;
- (j) Reward respondents with extracts of publications. If they are not interested, let them indicate other staff within the organization who should be interested;
- (k) Train staff in handling difficult respondents.

10. Role of international, regional and sub-regional organizations

123. In the context of enhancing the statistical capacity of African countries, the role of leading international, regional and sub-regional organizations cannot be over-emphasized. These organizations and the donor community in general, play an important role in funding national statistical programmes and projects, developing methodologies and frameworks for the collection and compilation of statistical data, and organizing technical assistance activities in the form of training workshops, seminars, organization of working groups, etc.

124. Africa is becoming an emerging region in terms of statistical development and these leading organizations have repositioned themselves to respond in a robust manner to the emerging statistical awakening. In this context, there is a real need for a strategy aimed at improving the co-ordination between these various organizations in the design and implementation of their technical assistance programmes. Such strategy would make the programmes more complementary and more coherent. The strategy would also enhance the efficiency in reducing the costs and minimizing the duplication of technical assistance programmes. Equally important is also to ensure an effective participation of the African countries in the identification of their needs and the design and implementation of any policy geared towards the enhancement of their statistical capacity.

125. UNSD is taking special efforts to enhance the statistical capacity of African countries in compiling economic statistics in order to significantly enhance, in the medium term, the availability and quality of basic economic statistics which are policy relevant for macroeconomic and sectoral policy making and management in Africa and meet immediate data requirements for decision making in business community and other users based on a solid foundation of the System of National Accounts. UNSD is also committed to a strong partnership with ACS, international and regional/sub-regional organizations, and African countries in order to make significant progress in statistical development in general and by extension, in national development outcomes in the African region.

IV. Annexes

Annex 1: Recommendations of the Delhi Group on the informal sector

1. The 15th ICLS¹⁴ of January 1993 provided considerable flexibility to countries in defining and measuring the informal sector. Some elements of flexibility were desired, because the 15th ICLS resolution was the first international standard ever adopted on this topic. Its main purpose was to provide technical guidelines for the development of informal sector statistics rather than to achieve the international comparability of data. Other elements of flexibility arose from lack of agreement. However flexibility reduces international comparability. To address this problem, the UN Expert Group on Informal Sector Statistics, constituted in 1977 and mostly known as the Delhi Group, has endeavored to harmonize national definitions of the informal sector on the basis of the framework set by the ICLS definition.

2. The Delhi Group was set up as an international forum to exchange experience on the measurement of the informal sector, present data collection practices, including definitions and survey methodologies followed by member countries, and recommend measures for improving the quality and comparability of informal sector statistics. It was initiated by developing countries (where the informal sector represents a significant segment of the economy) to further clarify the concepts and methodologies for measuring the informal sector.

3. The Group was made up of experts from the statistical offices of Armenia, Australia, Bangladesh, Brazil, Colombia, Cuba, Ethiopia, Fiji, France, India, Indonesia, Malaysia, Mexico, Namibia, Nepal, Nigeria, the Philippines, Poland, the Republic of Korea, Sri Lanka, Thailand, Turkey, Venezuela and Zambia; representatives of international bodies such as the Asian Development Bank, the Economic and Social Commission for Asia and the Pacific, the International Labor Organization, the Statistical Institute for Asia and the Pacific and the United Nations Statistics Division; and other institutions such as the Center for Development Alternatives, the Center for Social Development, the French Scientific Research Institute for Development and Cooperation, the Gujarat Institute for Development Research, the Harvard Institute for International Development, and the National Council for Applied Economic Research.

4. The Delhi Group recognized that there were limits to harmonization of informal sector statistics; nevertheless, on the basis of the largest common denominator, the Group was able to identify a subset of the informal sector that could be defined uniformly and for which countries could make internationally comparable data available. Accordingly, the Group adopted the following text: "Since the informal sector manifests itself in different ways in different countries, national definitions of the informal sector cannot be fully harmonized at present. International agencies should disseminate informal sector

¹⁴ Resolution concerning statistics of employment in the informal sector, adopted by the Fifteenth International Conference of Labour Statisticians, January 1993.

data according to the national definitions used. In order to enhance the international comparability of informal sector statistics, they should also disseminate data for the subset of the informal sector, which can be defined uniformly.”

5. To arrive at this subset of the informal sector, the Delhi Group adopted the following recommendations:

- (a) All countries should use the criteria of legal organization (unincorporated enterprises), type of accounts (no complete set of accounts), and product destination (at least some market output);
- (b) Specification of the employment size limit of the enterprise in the national definition of the informal sector is left to the country’s discretion. For international reporting, however, countries should provide figures separately for enterprises with less than five employees. In the case of multiple-establishments enterprises, the size limit should apply to the largest establishment;
- (c) Countries using the employment size criterion should provide disaggregated figures for enterprises, which are not registered, as well as for enterprises, which are registered;
- (d) Countries using the criterion of non-registration should provide disaggregated figures for enterprises with less than five employees as well as for enterprises with five or more employees;
- (e) Countries, which include agricultural activities, should provide figures separately for agricultural and non-agricultural activities;
- (f) Countries should include persons engaged in professional or technical activities if they meet the criteria of the informal sector definition;
- (g) Countries should include paid domestic services unless these are provided by employees;
- (h) Countries should follow the Resolution adopted by the 15th ICLS regarding the treatment of outworkers/homeworkers (paragraph 18). Countries should provide figures separately for outworkers/homeworkers included in informal sector;
- (i) Countries covering urban as well as rural areas should provide figures separately for both urban and rural areas; and
- (j) Countries using household surveys or mixed surveys should make an effort to cover not only persons whose main job is in the informal sector, but also those whose main job is in another sector and who have a secondary activity in the informal sector.

6. Since the subset of the informal sector presently covers only a relatively small part of the informal sector in any country, the Delhi group recognized that further efforts were needed to enlarge it in the future.

Annex 2: Measuring the informal sector

1. The appropriate methods for measuring the informal sector depend upon the measurement objectives. If the aim is simply to monitor the evolution of the informal sector employment in terms of the number and the characteristics of the persons involved and the conditions of their employment and work, then the data can be obtained from an existing labor force survey. Similarly, if the aim is to obtain information on the demand by households for goods and services produced by the informal sector, then supplementary questions can be included in a household income and expenditure survey. Also, depending on the level of detail of the collected information, a consumption budget survey can report the weight of the informal sector in the overall household's supply.
2. On the other hand, the measurement objectives may be much more complex. For example, the aim may be to collect detailed structural information on the informal sector including the number and characteristics of the enterprises involved, their production activities, employment, income generation, capital equipment, the conditions and constraints under which they operate, and their organization and relationships with the formal sector and the public authorities. In this case, measurement requires a dedicated informal sector survey in which the informal sector enterprises themselves and their owners are the observation and reporting units. In this case, there are two basic survey design options, namely an enterprise/establishment survey or a mixed household-enterprise survey. The choice depends upon data requirements, the organization of statistical systems, and the resources available.
3. The design must take into account the large number of enterprises likely to be in scope and their typical characteristics – small size, high mobility and turnover, seasonal variations in business activity, clustering in specific areas, lack of recognizable features for identification/location, lack of usable records, and eventual reluctance to participate. There are two main approaches for measuring the informal sector: the indirect measurement approach and the direct approach which is based on sample surveys.
4. The *indirect measurement* of the informal sector consists in making assumptions about the relationship between economic activity and a few variables in order to make projections. The difference between the projections and the value observed represents an entity (the non-observed economy) whose weighting has been omitted from official national accounts statistics. The main indirect methods for measuring the informal sector include: (i) the differential method, which simply allocates the difference between expenditures and income to the informal sector. It is based on the comparison of aggregates and account balances (from the input-output table); (ii) the good influx method, which is based on the same principle but at a disaggregated level; (iii) the labor input approach which assumes a stable relationship between the potential labor force (based on age) not incorporated in the informal sector and production by the informal sector; and (iv) different monetary approaches that assume stable relationship between economic activity and few monetary variables. It is worth noting that indirect methods in

general are often criticized for not distinguishing between the informal sector and the other components of the non-observed economy.

5. The direct approach is based mainly on sample surveys. It encompasses the household surveys, the establishment surveys, the household income and expenditure surveys, and the mixed household-enterprise surveys. The following paragraphs describe the main measurement options in more detail.

Description of the Household survey

6. The *household survey* in African countries is generally conducted under the Living Standards Measurement Studies (LSMS) which is one of the three components of a living standards measurement programme undertaken by the World Bank. The two other components are the community survey and the consumer price survey. The goal of the LSMS is to establish better methods for collecting and analyzing data on the living conditions of households and communities and to contribute to the optimization of development policies by providing empirical support to political dialogue. The methodology and questionnaire of the household survey were first tested in the mid-1980s in Cote d'Ivoire and Peru. In all, more than 60 surveys have been conducted as part of the LSMS programme around the world.

7. The household survey is a multi-level survey. At the first level, the primary unit (enumeration areas) is a territorial division that includes houses based on their common characteristics and the sample (master sample) is established by stratification according to provinces, communities (urban versus rural), characteristics of dwelling and average level of education of heads of households. At the second level, household were selected with equal probability in each enumeration area. Each time the household survey is conducted, households are first counted in the enumeration areas established by the master sample, and then the number of houses is established to determine the households selected for the survey.

8. In order to meet the objective of monitoring the evolution of informal sector employment in terms of the number and characteristics of the persons involved and the conditions of their employment and work, additional questions on required data items are added to the existing household survey. These additional questions should be canvassed to all employed persons in the sample households during the reference period of the survey, irrespective of their status in employment and in respect of their main and secondary jobs as in many countries a large number of informal sector activities are undertaken as secondary jobs. This would make it possible to collect comprehensive data on informal sector employment and to obtain information on the conditions of employment and work from all categories of informal sector workers, including employees and contributing family workers. These data can be related to the corresponding data on employment in other sectors and unemployment.

9. Some activities are likely to go unreported as employment in the labour force survey and it is often necessary to make special probes on these to ensure full coverage of

informal activities. For example, special probes may be required for unpaid work in small family enterprises, activities undertaken by women on their own account at or from home, undeclared activities, and informal sector businesses conducted as secondary jobs by farmers, government officials or employees of the private formal sector. In order to capture adequately the work of children in the informal sector, it may also be necessary to lower the minimum age limit that the surveys use for measurement of the economically active population. In designing the survey sample, care should be taken to include an adequate number of areas where informal sector workers live.

10. Although the additional cost of the measurement of informal sector employment is relatively low, there are some limitations in such an approach, including: (i) informal sector employment is obtained as part of total employment, which is usually measured in relation to a short reference period such as one week. Estimates of informal sector employment derived from such a survey are unlikely to be representative of the whole year. For improving the representativeness, frequency of data collection during the year need to be increased in the case of quarterly, monthly or continuous surveys or a longer reference period such as one year need to be used in the case of annual or less frequent surveys; (ii) estimation of the number of informal sector enterprises is difficult, if not impossible. It is not identical to the number of informal sector entrepreneurs because of the existence of business partnerships; (iii) the application of the informal sector definition may pose problems in the case of employees, contributing family workers and proxy respondents, who usually have only limited knowledge of the characteristics of the enterprises in question, including the characteristics relating to the definition of the informal sector; and (iv) the possibilities for disaggregating the data by branch of economic activity and other characteristics depend upon the sample size and design.

11. Unlike the other surveys (mixed and enterprise surveys), the household survey uses only one questionnaire. It collects information on different themes including the economic activities and the independent non agricultural employment.

Description of the household income and expenditure survey

12. This type of survey is a potential source of information on the demand by households for goods and services produced in the informal sector. For each expenditure group, data may be collected on the distribution of expenditure by point of purchase distinguishing for example, supermarkets, formal shops and workshops, public sector and other formal points of purchase, ambulant vendors and street stalls, home vendors, small/informal shops and workshops, markets and other informal points of purchase. Household income and expenditures surveys cannot provide however, information on the total demand for informal sector products. They can only provide data on household final consumption expenditure for informal sector products which is only a part (albeit the most important one) of the total demand.

Description of the informal sector establishment survey

13. The *establishment survey* requires a field census of all establishments from which a sample would be selected, where applicable. The method faces one major difficulty: the absence of a fixed location for the conduct of certain activities, which makes it difficult to establish a sample frame. Often, the establishment survey does not capture the full range of activities. When examples of this type of survey exist in a country, the surveys often do not have national coverage. They do not always use the same questionnaire, or even the same definition of the informal sector, making comparisons difficult. With a few exceptions, such as the need to have more precision on a specific activity (for example, gold washing), the mixed survey and the household survey are both preferred to the establishment survey.

14. Establishment surveys are used if the purpose is to collect detailed structural information on the composition of the informal sector in terms of the number and characteristics of enterprises involved, their production activities, employment, income generation, capital equipment, equipment of informal sector enterprises, the conditions and constraints under which they operate, their organization and relationships with the formal sector and the public authorities, etc.

15. In order to use the establishment survey approach, availability of an up-to-date sampling frame of informal sector enterprises or establishments is a must. Such a frame, however, is generally not available in many countries. Countries with large informal sector often do not have business registers. Even where a business register exists, it does not usually cover informal sector enterprises. Thus, in most cases enterprise surveys can be conducted only following a census of informal sector units or, a general economic/establishment census covering the relevant branches of economic activity and containing the items required for the identification of informal sector units. The economic census lists can be used as a list frame if the informal sector survey is conducted immediately after the census. If the informal sector survey is to be conducted later, data from the last establishment or economic census can still be used to construct an area sampling frame for the selection of sample areas.

16. The enterprise surveys approach has following limitations: (i) establishments/economic censuses are large scale resource oriented exercise; (ii) complete coverage of the informal sector is difficult to achieve without omission or duplication as it is difficult to identify or locate many informal sector businesses because they operate from non-fixed locations and lack recognisable business premises; (iii) information is collected separately for each establishment; it may be difficult to show the linkages between several informal sector activities undertaken by the same individuals or households, and to consolidate the data at the enterprise or household level; and (iv) there may be double counting of activities in cases where, for example, some members of a family produce goods in a small workshop or at home, and other members of the same family sell these goods in a market or street stall.

17. Notwithstanding these limitations, establishment surveys continue to be a useful and efficient method of data collection on the “upper” segments of the informal sector (identifiable establishments), which are often the main target groups of small enterprise development programmes.

Description of mixed household-enterprise survey

18. There is a marked trend in recent years to survey the informal sector through *mixed household-enterprise surveys*. Such surveys are the most suitable approach when the aim is to collect comprehensive data about the informal sector as a whole and about the various segments of which it is composed. These surveys can cover all informal sector entrepreneurs and their activities, irrespective of the size of the enterprises, the kind activity and the type of workplace used, and irrespective of whether the activities are undertaken as main or secondary jobs. In particular, they can also cover activities undertaken inside the owner’s home or without fixed locations.

19. The basic principle of mixed household-enterprise survey is to construct a sampling frame of informal sector enterprises through a household survey operation, prior to the informal sector survey itself. In a mixed household-enterprise survey, a sample of households is selected and each household is asked whether any of its members is an *entrepreneur*, i.e., the sole proprietor of, or a partner in, an unincorporated enterprise (household survey component). Data for all the enterprises thereby identified (or for a sub-sample of them) are then collected – either immediately from the respondent reporting on behalf of the enterprise or in a subsequent stage of data collection (enterprise survey component).

20. Mixed household-enterprise surveys makes it possible to cover small enterprises that are not included in list frame based enterprise surveys. Despite its many advantages in the measurement of the informal sector, the mixed household-enterprise survey approach is subject to some limitations including the followings: (i) enterprises with production units in more than one location are difficult to handle through the sampling design of mixed household-enterprise survey; and (ii) an enterprise that is a partnership may be reported by each of its partners who may be in different households resulting in duplication of coverage. Mixed household-enterprise surveys can be conceived either as *independent* informal sector surveys or as informal sector *modules* attached to existing labour force or other household surveys.

21. *Independent mixed household-enterprise surveys* can often be technically better arrangements because their sample can be specifically designed to meet the informal sector measurement requirements, for example to produce estimates of specified reliability in selected strata. Data may be required for each economic branch, or to support analysis of the differences between various informal sector segments regarding their income-generating potential, constraints and other characteristics.

22. Independent surveys are based on a multi-stage design involving the following four steps:

- (a) *Selection of areas as primary sampling units*: an area frame is used, consisting of enumeration areas of appropriate size, stratified according to the overall density of informal activity in these areas, or densities of informal sector activities of different types. Enumeration areas with a high density in the relevant activity groups are selected at a higher rate in order to obtain more coverage, increased sampling efficiency and reduced costs;
- (b) *Listing or interviewing of all households in the sample areas*: The quality of listing is a key factor for the overall quality of the estimates obtained from the survey. It is useful at this level to undertake a dual mutually exclusive listing of: (i) household and household-based (including mobile) entrepreneurs; and (ii) establishments in the sample areas. Some countries even use different area sampling frames for (i) and (ii) because they tend to be clustered in different areas. The listed households and establishments are then grouped in strata by industry, sex of the entrepreneur, type of workplace, etc., for stage allocation and selection;
- (c) *Selection of sample households with owners of potential informal sector enterprises* as ultimate sampling units. The allocation of the final sample to the various strata must be as homogeneous as possible and ensure that an adequate number of ultimate sampling units from each stratum is selected;
- (d) *Main interviewing of sample households and enterprise owners.*

23. The design of an independent informal sector survey entails fairly complex survey operations and sample design and estimation procedures. It requires a team of qualified survey staff, sound training of interviewers, constant supervision and control of all survey operations, and care in keeping records of the listing operation, sample selection and sample outcome for each sample area. The cost aspect is also particularly important for the first survey phase, which is an expensive operation unless it can be combined with a household listing for another survey. The task is to list all the households in the sample areas, to identify all the potential informal sector entrepreneurs and their enterprises, and to obtain any additional data to be used for their subsequent stratification and selection.

24. *The modular approach* involves the attachment of an informal sector module to an existing household survey such as a labor force survey or a household income and expenditure survey which means that the informal sector survey sample is obtained as a sub-sample of the base survey. The informal sector survey may be conducted simultaneously with the base survey or subsequently. The latter arrangement is preferred in most cases as it: (i) facilitates the management and coordination of the two surveys; (ii) ensures that the survey operations for the base survey can proceed smoothly; (iii) is unlikely to have a negative impact on the quality of the base survey data; and (iv) provides a better control over the identification and selection of the sub-sample for the informal sector.

25. The modular approach is less complex and less expensive than the conduct of an independent informal sector survey because information collected during the base survey provides the basis for the identification and selection of the sub-sample of households or persons for the informal sector survey, and no special household listing or interviewing is required. From the methodological point of view, the strengths of the modular approach lie in its possibilities to: (i) monitor changes of the informal sector over time, if the base survey is conducted regularly and an informal sector module is attached to it at sufficiently frequent intervals; (ii) achieve a complete coverage and accurate identification of potential informal sector entrepreneurs in the sample households during the base survey interviews, particularly if a well-designed labor force survey is used for this purpose; (iii) use the sampling weights of the base survey for the households with informal sector enterprises and thereby facilitate the estimation of the survey results; and (iv) relate data on the informal sector activities to data obtained from the base survey.

26. However, the modular approach can only be used in situations where a suitable base survey exists, and where it is feasible in terms of survey operations and response burden to add data collection for the informal sector to data collection for the base topic. The representativeness of the data over time may be limited by the frequency and reference period of the base survey. The base survey sample is not likely to have been efficiently designed from the perspective of informal sector measurement, neither at the level of sample areas nor at the level of sample households. There is no control over the size of the informal sector sample or over its distribution by type of activity. The resulting number of informal sector entrepreneurs included in the sample may, therefore, be quite small, and insufficient to yield reliable separate estimates for each type of informal sector activity for which such estimates would be desirable (e.g. estimates by branch of economic activity).

27. *Integrated surveys* can be seen as special types of modular surveys designed to meet several objectives at the same time, i.e., the collection of data about the informal sector and other topic such as labor force, household income and expenditure. Such surveys are especially useful for countries that do not have a household survey to which an informal sector module can be attached, and that need to collect data on a range of topics without having the resources that are necessary for separate surveys.

28. Integrated surveys aim at incorporating the sample design requirements for informal sector measurement into a combined survey design as an additional objective, to the extent that all requirements can be reconciled. For this purpose, efforts are made in the sample allocation and selection to increase the number of households with informal sector enterprises included in the sample and to enhance the representation of the various types of informal sector activities in the sample. It should be noted however, that integrated surveys are operationally complex undertakings, especially if the aim is to cover the whole country including rural areas. Moreover, the response burden for sample households tends to be high. Examples of integrated surveys include the 1-2-3 system of surveys implemented in many African countries, especially AFRISTAT member countries. The following paragraphs describe this 1-2-3 method.

Description the 1-2-3 method

29. The *1-2-3 method* is an integrated system of surveys that has two objectives: (i) a macroeconomic objective which seeks to provide information which might be of interest to both economic modelers and national accountants concerned with defining a good method for including the informal sector in the national accounts. This objective is achieved by measuring employment and informal production together with the consumption of goods and services provided by the informal sector; and (ii) a socio-economic objective, which aims to describe the conditions under which informal activities are carried out, thus making it easier to devise policies in support of small or micro-enterprises as part of national or international projects.

30. The definition of informality used in 1-2-3 surveys was developed jointly by economic researchers and national accountants from Africa and France specialized in developing countries on the basis of work carried out by the Mexican statistical institute (INEGI) in the late 80s. These types of surveys are applied and used extensively in African countries, especially in AFRISTAT's member countries. According to this definition, the informal sector covers all activities which fall completely or partly outside national rules, insofar as they are not recorded in one or more existing administrative registers. Also, it is important to note that the concept of informality used here is clearly distinguished from the concepts of illegal and underground economies. Moreover, the two crucial concepts of the 1-2-3 system have been defined according to existing international rules and standards namely the 1993 SNA and the ILO resolutions on the operational statistical definitions of employment and of the informal sector.

31. The method is based on a system of three interconnected surveys which combines households and informal producers and have the advantage of giving a precise measurement of the weight of the informal sector in economic aggregates such as the total employment, total production, value added, intermediate consumption, household income and final household consumption. The first module measures employment, stating whether it is formal or informal; The second module measures production generated by the informal activities which were detected during the first stage, thus focusing on informal sector production units; The third module analyses household consumption in relation to its origin and once again makes a distinction between demand on the informal sector and demand on the formal sector.

32. The first module uses a household survey to determine the supply of labor and the potential for the individuals to become part of the labor market. It also allows identifying the heads of informal production units (IPU), who are the source of informal activities and who will be interviewed during the next stage. This phase comprises two questionnaires, the first of which collects socio-economic and demographic data on household members and the characteristics of their dwellings. The second questionnaire is specific to employment and is used to situate people relative to employment. It covers any potential member of the labor force.

33. The second module uses a survey of those involved in the informal sector to determine the components of the IPU's economic activities. The sample for this survey is obtained by stratification of the exhaustive list of the head of IPU's derived from the first phase. This module is concerned in particular with investigating their behavior in terms of employment, prices, production, investment and competition. As such, it provides information on the characteristics of the IPU, its premises, its detailed production account up to the gross operating surplus, the number of employees belonging to the IPU, the socio-demographic characteristics of the employees, their category in the IPU (employee, apprentice, partner, family helper, etc.) the method of financing and its access to formal financing (banks, micro-finance, informal loans). The module allows also, an analysis of how the informal sector fits into the national economy.

34. The third module analyzes households' consumption, making it possible to pinpoint the origin of the demand addressed to the informal sector by estimating the amount of expenditure per type of product for the various categories of households and also by assessing the respective weights of the formal and informal sectors in the households' expenditure. The last two modules therefore look at the informal sector both from the perspective of supply, as a component of the productive sector, and from the perspective of demand, expressed as the proportion of consumption satisfied in the informal sector.

Annex 3: Data Quality Assessment Frameworks

1. A lot of work has been done in recent years to apply the concepts of quality to statistical data by developing Data Quality Assessment Frameworks (DQAF) intended to assess the quality of data produced by statistical organizations. This annex presents a set of eight main quality dimensions integrated in the data quality assessment frameworks used respectively by the IMF, Eurostat and OECD.
2. The IMF Data Quality Assessment Framework (DQAF) takes a holistic view of data quality and includes governance of statistical systems, core statistical processes and statistical products. The Framework is organized in a cascading structure covering the prerequisites and five dimensions of quality – assurance of integrity, methodological soundness, accuracy and reliability, serviceability and accessibility.
3. The European Statistical System (ESS) focuses more on statistical outputs and defines the quality of statistics with reference to six criteria – relevance, accuracy, timeliness and punctuality, accessibility and clarity, comparability and coherence.
4. The OECD Quality Measurement Framework views quality as a multifaceted concept. The quality characteristics depend on user perspectives, needs and priorities, which vary across groups of users. Quality is viewed in terms of seven dimensions – relevance, accuracy, credibility, timeliness, accessibility, interpretability and coherence.
5. *Prerequisites of quality:* They refer to all institutional and organizational conditions that have an impact on the quality of the statistics produced. The elements within this dimension include the legal basis for compilation of data; adequacy of data sharing and coordination among data producing agencies; assurance of confidentiality; adequacy of human, financial, and technical resources for the implementation of economic statistics programmes and measures to ensure their efficient use; and quality awareness.
6. *Relevance:* The relevance reflects the degree to which the data meets the real needs of users. Therefore measuring relevance requires identification of user groups and their needs. There are multiple uses and users, and they may change over time. New needs may arise that require new data. Relevance may be indirectly assessed by ascertaining whether there are processes in place to determine the view of users and the uses they make of the data. The statistical office’s challenge is to weigh and balance the differing needs of current and potential users with a view to producing a program that goes as far as possible towards satisfying the most important needs of users within given resource constraints.
7. *Accuracy:* The accuracy is the degree to which the data correctly estimate or describe the quantities or characteristics they have been designed to measure. Accuracy refers to the closeness between the values provided and the (unknown true values). It has

many attributes and in practice there is no single aggregate for or overall measure of accuracy. In general, it is characterized in terms of errors in statistical estimates and is traditionally decomposed into bias (systematic error) and variance (random error) components. In the case of sample surveys-based estimates, the accuracy can be measured using the indicators: coverage, sampling errors, non-response errors, response errors, processing errors, measuring and model errors.

8. *Credibility*: The credibility refers to the confidence that users place in the data based on the image of the statistical office or agency that produces the data. Confidence by users is built over time. One important aspect of credibility is trust in the objectivity of the data, which implies that the data are perceived to be produced professionally in accordance with appropriate statistical standards, and that policies and practices are transparent. For example, data should not be manipulated, nor should their release be timed in response to political pressure.

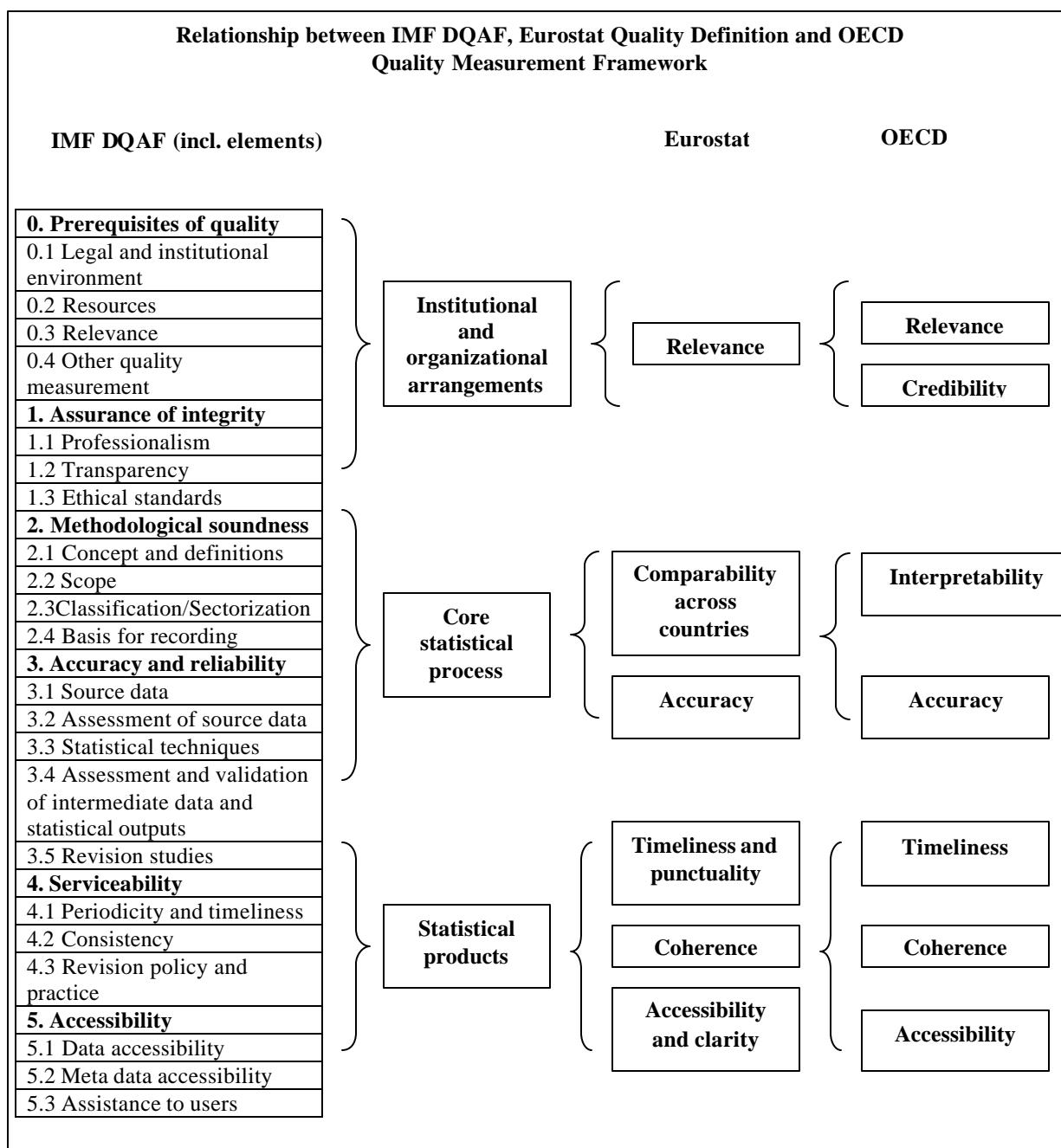
9. *Timeliness*: The timeliness refers to the delay between the end of the reference period to which the data pertain, and the date on which the data are released. Timeliness is closely related to the existence of a publication schedule. A publication schedule may comprise a set of target release dates or may involve a commitment to release the data within prescribed time period from their receipt. This dimension is usually involved in a trade-off against accuracy. The timeliness of information also influences its relevance.

10. *Methodological soundness*: This dimension refers to the application of international standards, guidelines and good practices in production of statistics. The adequacy of the definitions and concepts, target populations, variables and terminology, underlying the data, and information describing the limitations of the data, if any, largely determines the degree of adherence of a particular dataset to international standards. This dimension is closely related to the interpretability of data.

11. *Coherence*: The coherence of statistical data reflects the degree to which the data are logically connected and mutually consistent, i.e. the degree to which they can be successfully brought together with other statistical information within a broad analytical framework and over time. The use of standard concepts, classifications and target populations promotes coherence, as does the use of common methodology across surveys. Coherence has four important sub-dimensions: (i) *Coherence within a dataset* implies that the elementary data items are based on compatible concepts, definitions, and classifications and can be meaningfully combined; (ii) *Coherence across datasets* implies that the data across different datasets are based on common concepts, definitions and classifications; (iii) *Coherence over time* implies that the data are based on common concepts, definitions, and methodology over time and; (iv) *Coherence across countries* implies that the data are based on common concepts, definitions, and methodology across countries.

12. *Accessibility*: The accessibility dimension refers to the ease with which statistical data can be obtained from the statistical office. This includes the ease with which the existence of information can be ascertained, as well as the suitability of the form or the

media of dissemination through which the information can be accessed. The aspects of accessibility are also the availability of metadata and the existence of user support services. Accessibility requires development of an advance released calendar so the users will be informed well in advance on when the data will be available, where and how to access them.



Source: Lucie Laliberte (IMF), Werner Grunewald and Laurent Probst (Eurostat), "Data quality: A comparison of IMF's Data Quality Assessment Framework (DQAF) and Eurostat's quality definition," January 2004. The last column showing the relationship with the OECD Quality Measurement Framework was contributed by the United Nations Statistics Division.

Annex 4: Metadata Components

1. This section presents a non-exhaustive list of some of the main components of a statistical metadata system.

Characteristics of the data

2. The description of key characteristics of the data help the users understand the data and the context in which it has been produced, in order to be able to use it in an appropriate way. These characteristics include:

(a) Overview of the data set:

- *Historical background*: survey name, organizational sponsor(s) of the survey or administrative data set, organization name(s) that conducted data collection;
- *Objectives*: purposes, for which information is required, stated within the context of the program or research problem that gave rise to the need for information; how the information is used;
- *Uses*: decisions to be made based on collected information and how information will support decisions ;
- *Users*: organizations, agencies, and groups expected to use the information;
- *Type of respondent*: establishments, companies, persons, housing units, etc.;
- *Model and its assumption*: information if the data are estimates or projections.
- *Data release version and type*: whether the data are preliminary or final, and whether this is a pilot study with a small number of cases or restricted geographic area.

(b) Guidelines and process for collecting and processing the data:

- *Forms and questionnaires*;
- *Rules for data entry*: procedures, and training given to person entering data on the form (e.g., manuals for interview rules);
- *Data capture*: method of data capture, accuracy rate, and quality control measures;

- *Keying/scanning specs.*

(c) Population Universe, Population Coverage :

- *Definition of target population:* all the establishments, persons, housing units or other units in the data set;
- *In case of administrative data:* define the program participation rules and the means of collecting the data (whether the program information is provided by a respondent or by interviews with a case manager or information is keyed or whether there are any quality control measures);
- *In case of a survey:* describe the sampling frame used to identify the population;
- *If applicable:* provide information on eligibility criteria and screening procedures.
- *Description of the survey design:* including the following: (i) Results of small-scale fields tests of survey procedures; (ii) Methods used to implement the design and collect the data (such as mail, telephone, or personal interviews); (iii) Sampling frame (i.e., the sources of information such as lists, directories, and records, that cover the universe and information about any exclusions); (iv) Size of the sample and the rules for selection from the universe and determination of the size; (v) Sampling unit used if there is a multi-stage or multi-phase sampling; (vi) Method of estimating sampling variances; and (vii) Disposition of sample cases (e.g., numbers of interviewed cases, ineligible cases, and non responding cases);
- *Coverage:* measurements of the completeness of coverage of the target population and the sampling frame, that is, the extent to which all elements on the list used are members of the target population and provide measures of the extent to which units are missed and duplicated on the frame.

(d) Time frame of data set:

- *Time coverage and frequency availability of the data set;*
- *Variations in timing:* what is known about cyclical, seasonal, or other variations over time in the dataset.

(e) Information for using the data:

- *Wording of questions or information on the form of administrative records;*

- *List of data elements, the range of their possible values, and their definitions* and, any changes of the definitions over time;
- *List of data elements* by data set, year of availability, lowest geographic area, and population universe;
- *Description of indexes* or other variables constructed by combining information from other variables on the file and whether data are seasonally adjusted;
- *Unweighted frequency counts* to check tabulations from microdata records;
- *Variance estimates*: explanation on how to calculate estimates of variances that are specific to the survey;
- *Record layout*: the description of the data elements on the file and their physical location;
- *Code lists* used, including classification schemes for variables, and recoding rules;
- *Top coded values*, if any;
- *Unit response rates* (weighted or unweighted) for surveys and participation rates for administrative records, and how the rates are calculated;
- *Contacts for questions*: names, telephone numbers, and email addresses;
- *Errata and Notes*: including geography and data corrections.

(f) Geographic scope:

- *Geographic areas* included in data set (specific areas present in the data set);
- *Definition of geographic components and hierarchy*;
- *History of changes in geographic boundaries* and how handled;
- *Maps* of geographic boundaries (outlines of areas).

(g) Comparisons :

- *Time series comparisons*: explain important changes such as the history of revisions within the data set, the character of revisions, and the effect of revisions on the data series; and legislative/program changes that would affect time series comparisons;

- *Comparability of similar data elements among data sets* with related surveys;
- *Procedures for adjusting dollar amount.*

Quality of the data

3. To evaluate the data for their purposes, and to understand its biases and level of precision, users draw on information about known data anomalies and a description of the sources of error (both sampling and non-sampling) associated with the survey, how errors were calculated, and edits to the original data to account for errors. They need to know, for example, coverage as well as response rates at the unit level and for items level on the questionnaires.

(a) Data Limitations :

- *Statistical precision of survey results*: this could include estimates of sampling variances, standard errors, or coefficients of variation, or presentation of confidence intervals;
- *Non-sampling errors*: for both administrative and survey data, provide reporting errors, response variance, interviewer and respondent bias, and errors in processing the data that may affect the data, any measures of bias, and methods to deal with such problems;
- *Edit and imputation rules*: such as those for non-response to an item and how non-response is handled in the database (e.g., whether it is left blank or edited, or if edited, what are the edit rules for using available information and assumptions to substitute values in the data set);
- *Confidentiality edits*: describe the statistical techniques used to ensure that information about individuals is not released;
- *Weighting scheme for survey data*: including adjustments for non-response and benchmarking and how to apply them.

(b) Advanced Methodology:

- *Evaluation of the accuracy of the data* – studies;
- *Data quality*: provide research that measures data quality and explain measures to gauge the quality of the data.

Dissemination of the data

4. Data producers release information to the public and data users need to understand the avenues for access and when they can obtain it. They also need to be advised if there are revisions to a previously released data set and the procedures the producer uses to protect the confidentiality of the data.

(a) Data dissemination and release schedule:

- *How to obtain data;*
- *Data products, type;*
- *Data release schedule;*
- *Timeliness.*

(b) Confidentiality procedures

(c) Sponsor/legal authority

Papers and presentations

5. The indicate clearly, professional papers and presentations related to the data set, including analysis of policy questions, research about the quality of the data, and decision memoranda help data users deepen their understanding of issued related to the data set.

Annex 5: Country Note Questionnaire

Country Note

Country:

General information

Please describe the legal basis for the production of official statistics in your country. In particular, is there a Statistical Law which defines rights and responsibilities of the national statistical office?

Type here:

How is the economic statistics work organized in your office? Please briefly describe and provide copies of (i) organizational chart and (ii) work programme of your office in the area of economic statistics.

Type here:

Form 1 Institutional arrangements

Please put X in appropriate cells; Type any remarks in the box "Note to form 1"

| ISIC Sections | Which agency is responsible for compilation of statistics with respect to the following economic activities? | | | | |
|--|--|-------------------------------------|--------------|---------------------------|--------------|
| | National Statistical Office | Line ministry or specialized agency | Central Bank | Other (Please specify) | Not compiled |
| 1 | 2 | 3 | 4 | 5 | 6 |
| A - Agriculture, hunting, forestry | | | | | |
| B - Fishing | | | | | |
| C - Mining and quarrying | | | | | |
| D - Manufacturing | | | | | |
| E - Electricity, gas and water supply | | | | | |
| F - Construction | | | | | |
| G - Distributive trade (wholesale and retail trade) | | | | | |
| H - Hotels and restaurants | | | | | |
| I - Transport, storage and communications | | | | | |
| J - Financial intermediation | | | | | |
| K - Real estate, renting | | | | | |
| M - Education | | | | | |
| N - Health and social work | | | | | |
| O - Other community, social and personal services activities | | | | | |
| Note to Form 1. | | | | | |

Form 2 Economic census

Please put X in appropriate cells; Type any remarks in the box "Note to Form 2"

| ISIC Sections <i>If some parts of a given section are not covered, please, indicated in a footnote below the form</i> | The year of the last census or N/C for not conducted | Were units of informal sector covered? Yes or No | Were the administrative data used to supplement direct enumeration? Yes or No | Was any threshold applied? | | | The next census is planned for <i>(please leave blank if no such plans exist)</i> |
|--|--|--|---|----------------------------|---|----------------------|--|
| | | | | No | Yes | | |
| | | | | | 1 – # of employees – turnover other | 2 3 - Comments | |
| 1 | 2 | 3 | 3 | 4 | 5 | 6 | 7 |
| A - Agriculture, hunting, forestry | | | | | | | |
| B – Fishing | | | | | | | |
| C - Mining and quarrying | | | | | | | |
| D- Manufacturing | | | | | | | |
| E - Electricity, gas and water supply | | | | | | | |
| F – Construction | | | | | | | |
| G - Distributive trade (wholesale and retail trade) | | | | | | | |
| H - Hotels and restaurants | | | | | | | |
| I - Transport, storage and communications | | | | | | | |
| J – Financial intermediation | | | | | | | |
| K - Real estate, renting | | | | | | | |
| M – Education | | | | | | | |
| N - Health and social work | | | | | | | |
| O - Other community, social and personal services activities | | | | | | | |
| Note to Form 2. | | | | | | | |

Form 3 Survey Frames used in surveys of formal sector

Please put X in appropriate cells; Type any remarks in the box "Note to Form 3"

| ISIC Sections <i>If some parts of a given section are not covered, please, indicated in a footnote below the form</i> | What units are surveyed: 1- legal unit 2 -enterprise 3- enterp. group 4 -establishment 5- local unit 6- other | Survey Frame is area based | Survey Frame is list based and is derived from: <i>(if multiple sources are used, please indicate)</i> | | | | If Statistical Business Register does not exist, do you plan to establish it in future? |
|--|---|-----------------------------------|--|--|-----------------------------------|-------------------------------|---|
| | | | The latest census list | Ad hoc list of units composed from various sources | Administrative Business Registers | Statistical Business Register | |
| 1 | | 2 | 3 | 4 | 5 | 6 | 7 |
| A - Agriculture, hunting, forestry | | | | | | | |
| B – Fishing | | | | | | | |
| C - Mining and quarrying | | | | | | | |
| D- Manufacturing | | | | | | | |
| E - Electricity, gas and water supply | | | | | | | |
| F – Construction | | | | | | | |
| G - Distributive trade (wholesale and retail trade) | | | | | | | |
| H - Hotels and restaurants | | | | | | | |
| I - Transport, storage and communications | | | | | | | |
| J - Financial intermediation | | | | | | | |
| K - Real estate, renting | | | | | | | |
| M – Education | | | | | | | |
| N - Health and social work | | | | | | | |
| O - Other community, social and personal services activities | | | | | | | |

Note to Form 3

Form 4 Coverage and Periodicity of Economic Surveys of Formal Sector

Please put X in appropriate cells; Type any remarks in the box "Note to Form 4"

| ISIC Sections Units are classified at [] digit level of ISIC Please type "No" in the box to the right if ISIC is not used [] | Currently conducted economic surveys | | | | Are any thresholds applied in any of the surveys with respect to unit's inclusion in a sample? | | Collection methods |
|--|--------------------------------------|--------|-----------|---------|--|---|---|
| | Infrequent (every # years) | Annual | Quarterly | Monthly | Yes/No | If Yes, do you use administrative data as a supplement? | 1 – mail dispatch follow-ups by: 2 – phone 3 – fax 4- e-mail visits 5 – CATI 6 – |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| A – Agriculture, hunting, forestry | | | | | | | |
| B – Fishing | | | | | | | |
| C - Mining and quarrying | | | | | | | |
| D- Manufacturing | | | | | | | |
| E - Electricity, gas and water supply | | | | | | | |
| F – Construction | | | | | | | |
| G - Distributive trade (wholesale and retail trade) | | | | | | | |
| H - Hotels and restaurants | | | | | | | |
| I - Transport, storage and communications | | | | | | | |
| J - Financial intermediation | | | | | | | |
| K - Real estate, renting | | | | | | | |
| M – Education | | | | | | | |
| N - Health and social work | | | | | | | |
| O - Other community, social and personal services activities | | | | | | | |
| Note to Form 4. | | | | | | | |

Form 5 Data contents of economic surveys

Please put X in appropriate cells; Type any comments in the appropriate box

| Data items | Currently conducted economic surveys | | | | Comments |
|--|--------------------------------------|--------|-----------|---------|----------|
| | Infrequent (every # years) | Annual | Quarterly | Monthly | |
| 1 | 2 | 3 | 4 | 5 | |
| A set of financial variables reflecting income, expenditure and balance sheet position which allows for derivation of value added | | | | | |
| Full output (produced goods and services) details in terms of CPC compatible product classification | | | | | |
| Full output (produced goods and services) details in terms of national product classification which is NOT compatible with CPC | | | | | |
| A limited set of financial variables reflecting selected income, expenditure and balance sheet positions | | | | | |
| Selected output (produced goods and services) details in terms of CPC compatible product classification | | | | | |
| Selected output (produced goods and services) details in terms of national product classification which is NOT compatible with CPC | | | | | |
| Only few key variables (e.g., reflecting output or revenue). | | | | | |

Form 6 Informal Sector

If you do not compile any economic statistics with respect to informal sector, please type “No” in the box []
 Please provide your operational definition of *informal enterprises* in the note to form 6 below.

Please put X in appropriate cells; Type any comments in the appropriate box

| Question | Yes | Periodicity | No | Comments |
|---|-----|-------------|----|----------|
| 1 | 2 | 3 | 4 | 5 |
| What means of statistical observation are used to compile data about activities of economic units in informal sector: | | | | |
| Informal sector enterprise surveys | | | | |
| Mixed household and enterprise surveys | | | | |
| Household income and expenditure surveys | | | | |
| Labor Force surveys | | | | |
| Economic module of census of population | | | | |
| Other (please, specify) | | | | |
| Are you able to allocate units of informal sector to various ISIC sections? If Yes, please indicate in “Remarks” at what level | | | | |
| What kind of data do you collect about the production units of informal sector: | | | | |
| Total revenues | | | | |
| Some details on produced goods and services (<i>If Yes, please specify in Comments</i>) | | | | |
| Total expenditure | | | | |
| Some expenditure details | | | | |
| Total employment | | | | |
| Gross capital formation (<i>If Yes, please specify in Comments</i>) | | | | |
| Other (<i>If Yes, please specify in Comments</i>) | | | | |
| Note to Form 6 | | | | |

Form 7 Supplementary topics

Please type any comments in the appropriate box

| Topic | Yes | No | Comments |
|--|-----|----|----------|
| 1 | 2 | 3 | 4 |
| 1. Do you have fixed release dates for publicly disseminated data? | | | |
| 2. Do you disseminate metadata? | | | |
| 3. Do you prepare and disseminate to general public data quality reports? | | | |
| 4. Do you disseminate to general public a document describing your revision policy? | | | |
| 5. Do you periodically conduct user satisfaction surveys? | | | |
| <p>6. In your view, what are the most important impeding factors and challenges in the compilation of basic economic statistics in your country?</p> <p>Please specify in Comments</p> | | | |

Glossary

Enterprises in informal sector. Enterprises of informal sector are informal unincorporated enterprises owned by households which can be run as own-account enterprises or as enterprises of informal employers [should have at least one employee on continuous basis].

Economic census. In general, economic census is a statistical survey that is conducted at infrequent intervals of time (usually every five or ten years) aiming at collecting comprehensive and detailed statistics about the operating characteristics and structure of units engaged in all (or some) of the economic activities. Economic census can be economy wide (general economic census) or limited to specific industry/sector of economy.

Administrative Business Registers (ABR) are registers established for administrative purposes, in compliance with the applicable national legislation and administrative rules (e.g., register of businesses eligible for income or value added tax; industry registers of business units maintained by line ministries, customs register of units involved in foreign trade etc.)

Statistical Business Register (SBR) is a register of business units established for statistical purposes in compliance with national statistical law, statistical standards and maintained by national statistical office. SBR uses ABRs and other administrative records as sources of information and complements them with information obtained via statistical observations (e.g., censuses and surveys).

Statistical units. In general, (i) the **legal unit** is defined as an economic entity recognized by law and can represent other units such as an enterprise or its part; (ii) the **enterprise** is an economic entity engaged in production of goods and/or services and which is capable, in its own right, of owning assets, incurring liabilities and engaging in economic activities and in transactions with other economic entities, (iii) **an enterprise group** is an association of enterprises bound together by various types of links such as ownership, controlling interest and management, (iv) the **establishment** is defined as an enterprise or part of an enterprise that is situated in a single location and in which only a single (non-ancillary) productive activity is carried out or in which the principal productive activity accounts for most of the value added, and (v) the **local unit** is defined as an enterprise, or a part of an enterprise (for example, a workshop, factory, warehouse, office, mine or depot), which engages in productive activity at or from one location (it is different from establishment if engaged in various economic activities).

CATI - Computer Assisted Telephone Interviewing