



STATISTICAL CAPACITY BUILDING INDICATORS

Final Report

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on Statistical Capacity Building Indicators

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The PARIS21 Consortium is a partnership of national, regional, and international statisticians, policymakers, development professionals, and other users of statistics. Launched in November 1999, it is a global forum and network whose purpose is to promote, influence, and facilitate statistical capacity-building activities and the better use of statistics. Its founding organizers are the UN, OECD, World Bank, IMF, and EC.

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I. INTRODUCTION

1. The mandate of the PARIS21 Task Team on Statistical Capacity Building (SCB) Indicators¹ was to develop by October 2002 indicators that would help track progress of countries in building their statistical capacity.

2. This initiative constitutes the first systematic attempt at the international level to develop indicators of statistical capacity building applicable across countries. Keeping score, as indicators do, can be a very powerful means of galvanizing the energy of data producers and users to improve statistics production. This need to monitor statistical development has driven the efforts of the Task Team and others, since developing indicators is neither a quick nor a simple task.

3. The initiative was prompted by the pressing demand that originated from diverse quarters over the last few years. Among the trends that converged to create the demand was the greater emphasis put on statistics by the new evidence-based approach of the internationally agreed development goals to reduce poverty. Further, the international financial structure that underpins globalization also places a premium on timely and accurate information, with national statistics increasingly taking on the features of an international public good.

4. The case being made for improved statistics also prompted a realization that much more needs to be known about statistical capacity—how can needs be determined and how can progress be measured? This is especially so for technical assistance that faces, more than ever, pressing calls for accountability—everyone wants to know what the results are of technical assistance. How do they compare to the resources allocated? What are the lessons learned? How best to move forward? Donors want measurable results, and national authorities want to know whether the results warrant using their own resources. Mrs. Carson, Director of the IMF Statistics Department, summed it up at the PARIS21 Seminar on statistical capacity building indicators:²

“The time is ripe to look seriously at the question of statistical capacity, statistical capacity building, and indicators of statistical capacity building.”

5. While generally applicable to countries in all stages of statistical development, the SCB indicators could be more specifically useful to countries³ that are “statistically challenged, that is”:

¹ Set up in May 2001.

² Hosted by the IMF on April 29-30, 2002 to consult some 20 developing countries on the Statistical Capacity Building Indicators.

³ Such as the Highly Indebted Poor Countries (HIPC), Poverty Reduction Strategy (PRSP) countries, and others that require concessional loans and other forms of external assistance.

- have major deficiencies in available statistics and require sizable statistical capacity building, including fundamental changes to improve statistical operations; and
- cannot develop their statistical capacity without external assistance because of limited domestic resources.

6. By providing a snapshot reading of these countries' statistical circumstances, the SCB indicators should help them in identifying their strengths and weaknesses, in planning toward specific goals, and in monitoring the activities leading to these goals.

7. The SCB indicators can also facilitate communication and coordination among the organizations involved in technical assistance by providing common measuring rods of countries' statistical capacity needs. Further, the indicators can track the statistical development over time and, hence, provide the donor community with an additional means to account for its technical assistance.

How did the Task Team proceed?

The Team met on three occasions (May and September 2001 and April 2002) with intensive work carried out between meetings.

The Team first worked to build a common vision on what statistical capacity and the building of such capacity entailed and to decide its modus operandi. It discussed experiences in statistical capacity building, using presentations by members as the platform for the discussion. It also recognized that a great deal of spadework was needed to mine and synthesize the full range of relevant guidelines and documentation, and three respected international consultants¹ were recruited to help the Task Team. Finally, an international seminar was convened at the IMF in April 2002 to seek the views of 20 governments with experience on statistical capacity building.

The objective of such an intensive process, summarized in Annex 3, was to develop generic—that is, institution, donor, and country independent—indicators that would be internationally comparable. The resulting Statistical Capacity Building Indicators are presented in this report.

1/ Mr. David Allen, Mr. Tim Holt, and Mr. Jan van Tongeren.

Plan of the document

8. Following this introduction, the document is divided into four parts. The first describes the quantitative and qualitative indicators. The second explains the two applications (the management tool and the international comparative instrument) of the indicators. The third discusses the administrative aspects related to the SCB indicators. A final part provides a reprise and situates the SCB indicators in the wider context of sustainable statistical conditions.

9. Annex 1 presents the questionnaire to collect information on the SCB indicators for both international and national uses. Annex 2 provides the results of testing in two countries

reorganized according to the questionnaire formats.⁴ Annex 3 summarizes the Task Team's work, highlighting the intensive research and consultative process that led to the SCB indicators, and how the requirements for consistency, comprehensiveness, and conciseness drove the approach.

In a nutshell, what are the Statistical Capacity Building (SCB) indicators?

The SCB indicators measure the statistical conditions in a country through a prism that captures representative elements of these conditions:

- Sixteen quantitative indicators cover resources (domestically and externally funded annual budget, staff, and equipment), inputs (survey and administrative data sources), statistical products.
- Eighteen qualitative indicators focus on relevant aspects of environment (institutional and organizational), of core statistical processes, and of statistical products.

They are compiled using a questionnaire which can be self-administered by data-producing agencies.

The indicators can be used for international comparative purposes (applied at a set level of data-producing agencies and statistics) and for national uses (applied at a level customized to meet specific needs).

⁴ Prepared by Ms. M. Harrison in close collaboration with Mr. J. van Tongeren, consultant. Mr. van Tongeren's report on testing indicators of statistical capacity building is available on the PARIS21 website, under "Missions to test the SCB indicators frameworks in selected countries."

II. DESCRIPTION OF THE SCB INDICATORS

Quantitative indicators

10. The quantitative indicators provide measures of resources, inputs, and statistical products.⁵ *Resources* include domestically and externally funded annual budget and staff, as well as selected equipment. *Inputs* are data sources, measured in terms of surveys conducted and administrative data used. *Statistical products* are identified by the modes/channels of data releases (publications, press releases, website, etc.) and areas of statistics produced.

11. The 16 quantitative indicators that were selected cover:

- government funding for current and capital operations;
- donor funding in terms of money and expert working days;
- donors involved;
- staff number and turnover;
- information and communication technology (ICT) equipment: main frame, PC, network, and Internet access;
- surveys and administrative records used as source data;
- type of data produced, inclusive of reference date and the producing agency;
- number of data releases; and
- format of data releases.

12. These quantitative indicators provide a rough idea of the depth and breath of statistical activities in terms of financing, staff, number of surveys and administrative data used as data sources, and diversity of statistical outputs. Their usefulness is, however, limited for a number of reasons. First, benchmarks against which the values of the indicators can be assessed do not exist. Further, the output indicators do not measure for effectiveness, since they do not show to what extent the statistics are effectively used. Nor do the resource indicators provide for efficiency measures, because the amount of resources used cannot be readily related to all required characteristics of the statistical outputs. (In transition economies, for instance, there could be a large statistical staff with outputs not necessarily commensurate.) The quantitative

⁵ Not all are, strictly speaking, quantitative (numerical) indicators, as they include, for example, names of donor agencies and access to the Internet (yes or no).

indicators need to be viewed within the context of how the statistical activities are carried out, as measured by the qualitative indicators.

Qualitative indicators

13. The qualitative indicators embrace the broader view of factors in the statistical environment, the statistical process, and the characteristics of the statistical products in meeting users' needs. Because the Data Quality Assessment Framework (DQAF), introduced by the IMF, encompasses these various aspects, its six-part structure was adopted very early in the process to derive and present the qualitative indicators.

14. In total, 18 qualitative indicators were identified, of which six pertain to *Institutional Prerequisites*; two to *Integrity*; one to *Methodological Soundness*; four to *Accuracy and Reliability*; three to *Serviceability*; and two to *Accessibility*. They cover:

- the legal and institutional environment, and resource conditions needed to perform statistical operations, obtain cooperation of respondents and administrative authorities, and manage statistical operations;
- the professional and cultural setting in which the statistical operations are conducted;
- the methodological expertise for establishing data sources and their links to the statistical products;
- the population to be covered, and the surveys, survey questionnaires, and administrative data sources;
- the skills and techniques to transform source data into statistical products;
- the assessment and validation of source data, the use of statistical techniques, the assessment and validation of intermediate data, and statistical outputs;
- the relevance of the statistics to social and economic concerns, including the analytical capability to confirm certain issues and to identify those that need probing;
- the periodicity, timing, and internal/relational consistency of the statistics; and
- the methods and channels used to ensure wide and relevant dissemination of the statistical products.

15. Each indicator is evaluated against a four-scale assessment level, to which are attached benchmark descriptions: Level 4 applies to highly developed statistical activities; level 3 to moderately well-developed activities; level 2 to activities that are developing but still have many deficiencies; and level 1 to activities that are underdeveloped. The ratings were designed with a view that ratings of 3 or 4 would refer to activities where no external support would be required.

16. While the benchmark descriptions reduce the subjectivity inherent in qualitative indicators, these descriptions⁶ may need to be further adjusted as experience is gained from their use. For instance, comparing the responses from self-assessment against independent expert views would help to confirm the validity of the benchmark descriptions. Further, if the recorded results concentrate at the 4 and 3 levels, rebalancing may be required to better delineate responses across levels 1 to 4 (see section IV for the experimental implementation of the indicators).

III. APPLICATIONS OF THE SCB INDICATORS

17. The indicators can be used both as a management tool for specific circumstances and as an instrument to promote international comparisons of statistical capacity across countries.

The indicators as national management tool (see Annex 1.2)

18. For the data producers, the indicators can serve as a useful management tool. They provide a snapshot of the resources, activities, problems, and opportunities in a structured fashion, thereby shedding light on choices available for decision making. Their major benefit is their versatility; they can apply to any statistical output or data-producing agency.

19. For instance, if the intent is to assess the capacity to produce a given statistical output, such as statistics on labor, health, or education,⁷ the application of the qualitative indicators would encompass the strengths and weaknesses of the current statistical production of these statistics.

20. As for assessing the capacity of the data-producing agency, data producers can use both quantitative and qualitative indicators to shed light on the sources of financing, the resources used for staff and source data, and the outputs produced, and to provide performance indicators on the statistical production process.

21. The results obtained from the indicators can satisfy three interrelated functions.⁸

22. First, they provide a snapshot of crucial aspects of the statistical circumstances.

23. Second, by highlighting strengths and weaknesses, they should facilitate planning of statistical development. While the indicator results may be daunting in terms of desired

⁶ See Annex 1, Benchmark Descriptions for data-related indicators, from pages 25 to 33.

⁷ Examples provided in Annex 2.2 “Statistical Capacity Building (SCB) Indicators, NATIONAL USE.”

⁸ For an illustration of how they could be applied to fulfill these three functions, please refer to Carson, Laliberte and Knawaja, 2001; Morrison and Khawaja, 2001.

improvements, the main advantage of them is to provide a systematic view of areas to strengthen against the backdrop of existing absorptive capacity. This can greatly facilitate setting priorities, helping to avoid dispersing the efforts on all fronts at the same time. For instance, meeting some of the prerequisite statistical conditions may take precedence over, say, methodological soundness, where there is an acute shortage of material resources. In other cases, the initial emphasis may be on establishing more suitable statistical legislation or stronger staffing and organizational structure.

24. Third, applying the indicators at various intervals will aid the monitoring and evaluating of the development of statistical conditions. The indicators were devised to illuminate the capacity in relevant aspects of statistical activities and, as such, to help track the evolution of such conditions.

SCB indicators for cross-country comparative purposes (see Annex 1.1)

25. For comparative purposes across countries, the challenge was to find reference points in terms of statistics/data-producing agencies common to all countries so that the results of the indicators would be comparable across countries.⁹ The Task Team found the span of potential applications of the indicators to be wide. It ranged from applying them to every possible case (with the risk that they would never be compiled, as the cost would far outweigh the benefits) to applying them to a base so narrow as to render them useless for comparisons.

26. In establishing reference points that would be common across countries, the Team addressed several concerns. First, the intent was for the *data producers* themselves to apply the indicators. This entailed selecting only the variables that were really relevant and ensuring that they could reasonably be provided without undue burden. It also meant that the indicators needed to be concise and yet clear with adequate instructions. Another requirement was to design their format so that data producers could use it both for collection as well as for dissemination purposes, keeping to the minimum the editing procedures between these two functions. Finally, there was also a need to motivate the data producers to compile the indicators, and this entailed making them aware of the potential uses, including for the data producers' own purposes.

27. Second, the goal was for the *international community* to recognize and accept a common set of indicators as representative of the statistical conditions of countries. This led to a number of requirements. The indicators had to provide for a bird's-eye view of the situation, and this meant limiting their number. At the same time, they had to portray a sufficiently representative picture of the statistical conditions of countries to permit comparison across countries, and to help in directing action to be taken. They had also to provide a reading that could track changes in conditions over time. Finally, they had to be made available to the international community, which entailed a sponsoring agency at the international community level assuming that role.

⁹ Examples provided in Annex 2.1 "Statistical Capacity Building (SCB) Indicators, INTERNATIONAL USE."

28. It is with these concerns in mind, and through extensive exploitation of the results from the in-depth testing in two countries, that the reference points at which to apply the indicators for comparative purposes were determined. The guiding principle was to obtain a *representative* measure of statistical activities, as opposed to a full measure. This was done by gauging the types of indicators with the number of reporting units to which they would apply: the more straightforward indicators could be applied to a larger number of reporting units, and the most complex indicators to fewer units. A number of options were explored, and much effort was made at every level to minimize reporting burden (too high a cost would jeopardize implementing any indicators), and the choice arrived at was as follows:

- one output indicator to be applied at the statistical system wide level;
- the 16 output and resources indicators to be applied, at most, to three *representative* agencies; and
- the 18 qualitative indicators to be applied to three *representative* datasets.

System-wide indicators

29. At the system level point, indicators were kept at the bare minimum to limit the reporting burden. The only information to be recorded at that level is the types of statistics produced, the latest year to which they refer and the producing agency. The UN classification of statistical themes was used to identify a list of statistics. As for the statistical system, it is made up of agencies that vary among countries in number, structure, and the authority to which they report, making it extremely difficult to identify the agencies at the outset for all countries. This problem was dealt with by having the agency in charge of statistical coordination in the country identify the producing agencies along with the outputs published.¹⁰

Agency-related indicators

30. The full range of quantitative indicators is to be applied to only selected data-producing agencies. For reporting-burden considerations, not all data-producing agencies could be assessed. Selecting the agencies with the most relevant outputs drove the choice, but this proved easier said than done. What criteria could be used to select relevant outputs? Did the outputs need to be relevant to major current issues? At what level would current issues be viewed as relevant—as that of the countries or that of the international community? Which products should be chosen and why? Are these products within the manageable limit of countries' circumstances?

31. This issue was settled by selecting data-producing agencies that are representative of statistical activities in three broad domains of statistics: economic, demographic, and social. (Environment was also viewed as an important domain. However, it was not to be assessed for the time being because statistics in this domain are in general less developed and standardized,

¹⁰ Admittedly, this coordinating role may not exist, or be very clear, in some countries.

and this applies both in developed and developing countries). Since several agencies may be involved in one domain (e.g., national statistical organization, central bank, ministry of finance, treasury, etc. in the economic domain), the decision was that only one agency was to report per domain; the agency is to be the one producing, respectively, national accounts (GDP), population, and household income/expenditure. In countries where the statistical activities are centralized, this could mean a single agency reporting the quantitative indicators, while in others it would mean three different ministries/institutions. More probably, this construct would include the national statistics office and, for a number of countries, the central bank as well. It may also, for a minority of countries, cover ministries of planning, social welfare, and/or finance. While the resultant catch of agencies is variable, this approach has the advantage of focusing on the capacity of the statistical agency (ies) responsible for the three data categories identified as representative of the country's statistical system.

32. Alternative approaches that were dismissed in favor of this representative, as opposed to a full, view of three statistical domains, include covering (i) all data-producing agencies and (ii) the three institutions typically responsible for the great bulk of a country's macroeconomic, financial, fiscal and socio-demographic data—that is, the national statistical office, the central bank, and the ministry of finance. The first option was not preferred because of the multiplicity of agencies and the difficulties in isolating resources applied to statistical activities that are secondary to the agency's central purpose, for example, in connection with health, education, environment, and justice. The second option was not preferred as it would be biased toward economic statistics. Arguments for adopting a wider range of agencies included providing better coverage of a country's statistical activities and capturing, more likely, growth in statistical capacity by indicators spread over a greater number of agencies. Arguments against the wider range included difficulties in identifying all agencies and the heavy reporting burden.

Data-related indicators

33. In keeping with the notion that the indicators were to be representative of statistical activities, rather than to measure total activities, the qualitative indicators are to be applied to three statistical outputs—GDP, population, and household income/expenditure—that represent the economic, demographic, and social domains, respectively. The GDP provides an exhaustive measure of production; the population levels and changes from natural growth and migration are essential aspects of demography; and the household income/expenditure is a basic measure for poverty. Where the same organization produces these three outputs, the rating of the indicators will be similar across statistics for dimensions such as Prerequisites, Integrity, Serviceability, and Accessibility. At the other extreme, where the statistical activities are highly decentralized, as is often the case in developing and transition countries, the qualitative indicators will vary across the statistical products.

34. In a nutshell, the system-wide indicators, by listing all statistics produced along with the year of reference to which they apply and the identification of the producing agencies, will provide an overview of the statistical production in a country. The agency-related indicators will provide a pointer to the breadth and depth of statistical activities performed in a country and will allow an overall comparative view of the level of statistical activities across countries (as

provided by the agency(ies) responsible for the three representative datasets). The data-related indicators will provide an overview of the internal capacity for producing representative datasets. They will give a bird's-eye comparative view of broad domains of statistics within a country; in addition, for each of the datasets, they will show areas of strengths and weaknesses of the statistical process.

IV. ADMINISTRATION OF THE SCB INDICATORS

35. Data producers could compile the indicators using a questionnaire (please refer to Annex 1) to be dispatched at periodic intervals. The following reviews the content of the questionnaire, explores how the questionnaire could be administered at both the national and international levels, and suggests that the indicators are initially implemented on an experimental basis.

Questionnaire content

36. The questionnaire is made up of a table that contains the system-wide indicators, the agency-related indicators, and the data-related indicators, along with the relevant instructions to complete the information (see Annex 1). The table was designed to serve both as a collection and dissemination device, with minimal editing required between these two functions.

37. As a management tool, the questionnaire could cover the agency (qualitative) and data (qualitative) indicators to fit the specific requirements at hand (see Annex 1.2), leaving out the system-wide indicators. For instance, if the priority is to assess labor statistics, or education statistics, both the quantitative and qualitative indicators could be filled in by the data-producing agency(ies) in charge of these statistics. This would provide a reading of national priorities, and help to plan and monitor the development work accordingly.

38. As an international comparative instrument (see Annex 1.1), it is essential that the indicators be compiled at points of reference that are the same, and that have therefore been set for all countries.

National administration of the SCB indicators questionnaire

39. At the national level, the administration of the questionnaire could be the responsibility of the data-producing agency in charge of coordinating statistical activities at the country level. The agency would be the focal point to make the questionnaire available to the relevant data-producing agencies and would be aware of the various applications that could be, and are effectively, made within the country of the indicators for management purposes. The coordinating agency could disseminate the results of such applications on its website and in the country's Poverty Reduction Strategy Papers,¹¹ if applicable.

40. As for the completion of the questionnaire for international purposes, the coordinating agency would ensure that the questionnaire is dispatched to the relevant agencies, followed up and that responses are collected, and that editing procedures are performed as required (such as summing up the results and consolidating them in a single table). It would also forward the results to the international unit in charge of administering the questionnaire.

International administration of the SCB indicators questionnaire

41. At the international level, a sponsoring international agency could administer the questionnaire on behalf of the donor community. Initially, it could target the HIPC and PRS countries as well as other countries in need of external statistical assistance. The sponsoring international agency would also be responsible for the follow-up response and for ensuring that the results are disseminated.

42. The agency should widely disseminate the results of the questionnaire, for instance on the PARIS21 website as well as on the IMF Dissemination Bulletin Board-GDDS.

Experimental implementation of the SCB indicators questionnaire

43. An experimental period to implement the questionnaire is suggested for three reasons. First, this would provide a period where *data producers* could be actively encouraged to use the indicators as a management tool for their immediate needs, such as applying for assistance for specific statistical outputs (e.g., education or health). This would increase awareness of the indicators and their usefulness, if properly compiled. It would encourage producers to portray the reality as it exists so as to obtain the required funding (and would counteract the natural tendency of data producers to provide neutral statements to avoid undermining their current statistical efforts). Once the indicators are compiled for the project in question, the data producers would be in a position to exploit their various functionalities. To the extent that the indicators are useful to their own operations, the data producers are more likely to take ownership of the indicators.

¹¹ PRSPs document the ongoing effort through which low-income countries improve public actions for poverty reduction and increase the effectiveness of both domestic resources and development assistance. For more information, please refer to <http://www.worldbank.org/poverty/strategies>.

44. Second, this would also provide time for the *data-producing agency responsible for coordinating statistics* in the country to become familiar with the SCB indicators questionnaire. PARIS21 could initially contact these agencies to explain the purpose of the survey and the reporting arrangements, to devise a well-defined follow-up strategy, and to encourage the establishment of good rapport with the potential respondent agencies. The donor community could also extend encouragement to compile indicators at the country level.

45. Third, the experience gained from use of the indicators for both management and international purposes would help toward *firming up the content and the administrative procedures of the questionnaire at the international level*. It will be crucial for PARIS21 during that period to be kept informed of the applications made of the indicators and to reconvene the Task Team if changes are warranted. Specifically, the indicators may need fine tuning to enhance their relevancy and effectiveness as a statistical capacity yardstick.

46. In summary, the experimental period will serve to promote the existence of the indicators and the awareness about their potential usefulness to data producers. This can be done on several fronts, such as a part of the PARIS21 workshops, the GDDS workshops, the PRSP initiatives, and by the international donor community. The experimental period will also help to confirm the adequacy of the indicators as a measure of statistical capacity.

V. CONCLUSION AND REPRIZE

47. At the international level, the absence of an overall framework to assess statistical capacity made it almost impossible to monitor progress over time and to identify and change priorities. This became increasingly unsustainable with the greater attention given to evidence-based policies over the last few years, prompting PARIS21 to set up the Task Team on Statistical Capacity Building Indicators in May 2001. The work of the Task Team initially consisted in identifying indicators of statistical capacity building that data producers could use for themselves. The work then proceeded to establish the reference points (in terms of statistics and data producing agencies) at which the indicators were to apply for comparability of results across countries.

The SCB indicators

48. The SCB indicators are made up of 16 quantitative indicators and 18 qualitative indicators. The quantitative indicators cover resources domestically and externally funded annual budget, staff, and equipment, inputs (surveys and administrative sources) and statistical products. The qualitative set covers relevant aspects of the statistical environment (legal, institutional and organizational), of core statistical processes, and of statistical products.

49. The quantitative indicators that focus on the statistics produced serve to assess if an agency has attained its goal of delivering its products. These indicators are indicative of statistical activities, and their main advantage is that they can be readily measured. The resource indicators are intended to show the extent of success in obtaining resources, in the form of funding both from own government and external donors, of data sources, and of human

resources. They indicate the bargaining position in obtaining valued resources and the ability to use resources in the production process to achieve performance.

50. The qualitative indicators serve more as measures of efficiency and effectiveness of statistical production. They help to show the following: (1) if the legal and institutional environment facilitates the production of the statistics, (2) if the resources are sufficient and activities meshed to promote productivity, (3) if the culture is amenable to quality work, (4) if the integrity and professionalism are protected and transparency measures are in place, (5) if the core statistical processes are performed according to methodological requirements and the source data available and techniques used are adequate, (6) if measures are in place to maintain the relevancy of the products, and (7) if the characteristics of the statistics produced fit users' needs. They can help to assess both the production of specific datasets and the health and well-functioning of data-producing agencies.

51. Data producers can use the indicators of statistical capacity building as an internal management tool to obtain an overview of their capacity to produce selected statistics. To promote international comparability, the indicators need to be compiled at reference points that have been set the same for all countries.

Sustainable statistical capacity

52. The SCB indicators represent the first systematic approach at the international level to produce indicators of statistical capacity building applicable across countries. It is a promising beginning. They will help shed further light on the statistical circumstances of countries, provide a means to share results systematically, and present a comparative view of statistical capacity building across countries.

53. The intent of the SCB indicators is to serve as an additional means to promote a climate where the statistical information becomes an essential support for national policies and good governance. Countries whose statistical systems are not sustainable, as evidenced by their relying extensively on external assistance, need to work toward meeting national needs. To the extent that national authorities view statistics as part of their best interests, they are more likely to increase the funding to statistical activities.

*Without this core capacity and the ongoing resources to support it, neither the statistical needs of the country itself nor those of the international community will be reliably served. Where this core capacity is fragile the sporadic provision of additional funds to satisfy a particular statistical need will be much less effective and is no substitute for what one might term 'statistical sustainability.'*¹²

¹² Friends of the Chair of the United Nations Statistical Commission for the 2002 UNSC Meeting (2001), *An Assessment of the Statistical Indicators Derived from United Nations Summit Meetings*.

**Annex 1: Statistical Capacity Building Indicators Questionnaire
PARIS21 Task Team on
Statistical Capacity Building Indicators
September 2002**

This questionnaire collects information in the form of indicators on statistical capacity building. The indicators will be of interest to the data producers and data users, including the donor community, for the following uses:

- a snapshot of a country's statistical conditions;
- a focus on opportunities by highlighting strengths and weaknesses; and
- a means to track over time results of capacity building efforts.

Members of the Task Team are the IMF, Chair (Ms. L. Laliberté, Chairperson, Mr. T. Morrison, Mr. J. Bové and Mr. S. Khawaja), the World Bank, Secretariat (Mrs. M. Harrison, Secretariat, Mr. M. Belkindas, and Mr. G. Eele), the UN Statistics Division, UNSD (Mr. W. de Vries), the UN Economic Commission for Latin America and the Caribbean, UN ECLAC (Ms. B. Carlson), and the UN Economic Commission of Europe, UNECE (Mr. J-E. Chapron), and Afristat (Mr. Lamine Diop).

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Washington, D.C., September 2002

Statistical Capacity Building (SCB) Indicators, INTERNATIONAL USE

Country:

Population:

Reporting year:

System-wide indicators					
Data statistics produced and published (Please provide <u>latest year of reference</u> to which the data statistics apply, and provide name of principal data producing agency)					
Data category	Ref. Year	Agency name	Data category	Ref. Year	Agency name
National accounts			Economic statistics by activity		
Price statistics			Agriculture, Forestry, and Fisheries		
Balance of payments			Industry		
Money, finance and insurance			Energy		
International trade			Distributive trade		
Population			Communication		
Household income/expenditure			Transport		
Health			Natural resources and environment		
Education			Other (specify)		
Labor force statistics			Other (specify)		
Tourism			Other (specify)		
Culture			Other (specify)		

Agency-related indicators (during reporting year)				
Agency producing the statistics on:	1. GDP	2. Population (report if agency is different from #1)	3. Household income/expenditure (report if agency is different from #1, 2)	4. Total
Agency: name				--
Government funding				
Current (amount, currency)				
Capital (amount, currency)				
Donor funding				
Funds (amount, currency)				
TA expert working days				
Donor agency (name)				
Statistical staff (regular staff, full-time equivalent)				
Number				
Turnover (%)				
ICT equipment				
Main frame (Yes/No)				
Internal network (Yes/No)				
Internet dissemination (Yes/No)				
PCs in use (number)				
Website (address)				
Source data used (number) (a monthly survey/administrative source counts as one source, not 12; a quarterly counts as one source, not 4)				
Household surveys/censuses				
Other surveys/censuses				
Administrative sources				
Data releases (a monthly counts as 12 releases; a quarterly counts as 4 releases)				
Publications/Yearbooks				
Other releases				

Statistical Capacity Building (SCB) Indicators, INTERNATIONAL USE (end)

Country:

Reporting year:

Data-related indicators			
	<i>1. GDP</i>	<i>2. Population</i>	<i>3. Household Income/Expenditure</i>
Agency (name):			
Rating scale: 4: Highly developed; 3: Developed; 2: Largely Undeveloped; 1: Undeveloped			
0. Prerequisites:			
0.1 Collection of information and preservation of confidentiality guaranteed by law and effective			
0.2 Effective coordination of statistics			
0.3 Staff level and expertise adequacy			
0.4 Buildings and equipment adequacy			
0.5 Planning, monitoring and evaluation measures implemented			
0.6 Organizational focus on quality			
1. Integrity:			
1.1 Independence of statistical operations			
1.2 Culture of professional and ethical standards			
2. Methodological soundness:			
2.1 International/regional standards implemented			
3. Accuracy and reliability:			
3.1 Source data adequacy			
3.2 Response monitoring			
3.3 Validation of administrative data			
3.4 Validation of intermediate and final outputs			
4. Serviceability:			
4.1 User consultation			
4.2 Timeliness of statistical outputs			
4.3 Periodicity of statistical outputs			
5. Accessibility			
5.1 Effectiveness of dissemination			
5.2 Updated metadata			
Contact person.....Telephone.....Fax.....Email.....			
Name of national statistical office (if any):			
Does it have a strategic plan? No <input type="checkbox"/> Yes <input type="checkbox"/> If yes, year of last update of the plan: _____			

Statistical Capacity Building (SCB) Indicators, NATIONAL USE

Country:	Population:			Reporting year:
Agency-related indicators (during reporting year)				
Agency producing statistics data on:	1.	2.	3.	4.
Agency (name):				
Government funding				
Current (amount, currency)				
Capital (amount, currency)				
Donor funding				
Funds (amount, currency)				
TA expert working days				
Donor agency (name)				
Statistical staff (regular staff, full-time equivalent)				
Number				
Turnover (%)				
ICT equipment				
Main frame (Yes/No)				
Internal network (Yes/No)				
Internet dissemination (Yes/No)				
PCs in use (number)				
Website (address):				
Source data used (number) (a monthly survey/administrative source counts as one source not 12; a quarterly counts as one source not 4)				
Household surveys/censuses				
Other surveys/censuses				
Administrative sources				
Data releases (a monthly counts as 12 releases; a quarterly counts as 4 releases)				
Publications/Yearbooks				
Other releases				

Statistical Capacity Building (SCB) Indicators, NATIONAL USE (end)

Country:		Reporting year:			
Data related indicators					
Statistics in:	1.	2.	3.	4.	
Agency name:					
Rating scale: 4: Highly developed; 3: Developed; 2: Largely Undeveloped; 1: Undeveloped					
0. Prerequisites:					
0.1 Collection of information and preservation of confidentiality guaranteed by law and effective					
0.2 Effective coordination of statistics					
0.3 Staff level and expertise adequacy					
0.4 Buildings and equipment adequacy					
0.5 Planning, monitoring and evaluation measures implemented					
0.6 Organizational focus on quality					
1. Integrity:					
1.1 Independence of statistical operations					
1.2 Culture of professional and ethical standards					
2. Methodological soundness:					
2.1 International/regional standards implemented					
3. Accuracy and reliability:					
3.1 Source data adequacy					
3.2 Response monitoring					
3.3 Validation of administrative data					
3.4 Validation of intermediate and final outputs					
4. Serviceability:					
4.1 User consultation					
4.2 Timeliness of statistical outputs					
4.3 Periodicity of statistical outputs					
5. Accessibility:					
5.1 Effectiveness of dissemination					
5.2 Updated metadata					
Contact person.....Telephone.....Fax.....Email.....					

Statistical Capacity Building Indicators Questionnaire Instructions

General: The purpose of the questionnaire is to collect information on indicators of statistical capacity building. The questionnaire is to be completed and managed by the agency in charge of coordinating statistical activities in the country.

Return Address: Please complete the attached table and send to:

PARIS21
2 rue André-Pascal
75775 Paris
CEDEX 16

For any more information, please contact:

PARIS21: 014524 9051 (telephone)
contact@paris21.org (e-mail).

Scope: The information is to be provided in the attached table, which is made up of three parts: system-wide indicators, agency-related indicators, and data-related indicators.

System-wide indicators focus on the statistical outputs of a country. The *aim* is to provide an overall view of the statistics of the country and to identify both the latest year to which they refer and the data-producing agencies involved in their production.

Agency-related indicators focus on broad measures of resources used for statistics, surveys conducted, and publications/releases issued by the agency (ies) that produce GDP, population, and household income/expenditure. The *aim* is to produce a snapshot of the breadth and depth of statistical activities undertaken in three broad domains of statistics (economic, demographic, and social) as measured from the agency/agencies that produce the three datasets.

Data-related indicators focus on the legal, institutional and organizational environment, process aspects, and product characteristics from compiling the GDP, population, and household income/expenditure. The *aim* is to provide a bird's-eye comparative view of broad domains of statistics within a country.

Coverage: The system-wide indicators are to be completed for all the agencies involved in the production of the nation's principal official statistics. The coverage of agency related and data related sections is the agency (ies) responsible for the production of national accounts (GDP), population, and household income/expenditure. If the national statistical office produces all three datasets, then information from that office alone is required for the agencies-related and data-related sections. But if, say, the central bank produces GDP, the national statistical office produces population, and the ministry of planning produces household income/expenditure data,

then information for each of the three agencies should be recorded for the agency-related and data-related sections.

Country identification, population, and reporting year: Please identify the country, its population, and the period for which the questionnaire is being reported.

System-wide indicators

This section relates to all the statistics produced in the country.

Please indicate for each specific statistic the latest reference year to which it refers (e.g., latest government finance statistic could refer to 1995) irrelevant of the years in which the statistics were published.

For statistical domains where several series are published, perhaps with different publication dates, for example health statistics where HIV prevalence rates, immunization statistics, disease burden may all be collected, then a specific statistical series should be chosen and identified as such. The statistical coordinating agency should consult with the main agency responsible to determine which series should be selected, taking into account the country policy priorities.

The Other (specify) categories relate to key statistical series which are considered to be sufficiently important in the country policy agenda to be included in the questionnaire, examples might be gender, transport or disability statistics.

Agency-related indicators

This section relates to the totality of statistical activities of the agency (ies)—not just the information about the three specific data categories that were used to identify the agency (ies).

The data-producing agency (ies) should be identified and the information required concerns the activities during the reporting year. If the information required is not readily available, the best available estimates should be provided (care should be taken to keep track of the methodology used to ensure consistency of reporting over time).

Government funding: show budgetary (domestically funded) current and capital expenditure for statistical purposes during the reporting year, specifically excluding expenditure funded by donors. Specify the units and levels (in hundred, thousand, or millions) of currency used. There may not be specific budgets for the statistical activities, especially where statistics are produced as part of other functions in ministries. Please calculate careful estimates of resources to take into account overall statistical activities (survey/administrative data design, data collection, editing imputation, validation, processing, dissemination).

Donor funding: show expenditure and Technical Assistance (TA) expert working days received by the country for statistical purposes during the reporting year from donor agencies and under partner agreements. In recording expenditure, please specify the units and levels (in hundred, thousand, or millions) of currency used. For donor TA days, please show the number of days of

statistical technical assistance regardless whether corresponding monetary amounts have already been included in the expenditure items. Please provide the names of donor agencies that have contributed during the reporting year.

Statistical staff number: all staff in the data-producing agency involved in the production of statistics, from collection through to dissemination (e.g., statisticians, economists, drivers, printing staff). Staff numbers should cover both national and regional offices of data-producing agencies. Staff may only refer to the permanent and contract staff recruited for longer periods, but exclude ad-hoc extensions of staff in periods when large censuses or surveys are conducted and very large numbers of interviewers are recruited temporarily. Numbers of part-time staff should be converted to full-time equivalent, by applying a factor that is the ratio of average hours worked by part-timers divided by average hours worked by full-time staff.

Statistical staff turnover (%): defined as “number of exits of statistical staff during reporting year” multiplied by 100 and divided by the number of statistical staff at the start of reporting year. Exits include definite departures as well as leave absences of more than one year. (Ignore full-time/part-time considerations.)

Information and Communication Technology (ICT) equipment: Check “no” if there is no *main frame*; if there is no *internal network*; and if there is no data dissemination through *Internet*. Check “yes” otherwise. *PCs in use* for statistical work: number of personal computers in regular use for statistical work at the end of the reporting year; exclude computers that are no longer in effective use. If the agency has a website, please provide the address.

Data sources used during the year: number of distinct surveys (sample surveys, censuses) and administrative data sources used during the year for statistical purposes on household and other units (business or government). Report the numbers for all domains of statistics released (not just for the domains/ outputs of the three statistical outputs used as identifier of the agency). Count a monthly survey as ONE, not 12; count a quarterly survey as ONE, not 4; count an administrative data source updated monthly or quarterly as ONE, etc.

Data releases: approximate numbers of releases of statistical outputs in each category during the reporting year. Data releases should include publications, one-page or multiple-page press releases, as well as data releases through CD-ROMs and websites. Report the numbers for all domains of statistics released (not just for the domains/outputs that were used as identifiers for the agencies). Monthly releases or monthly updates of websites should each be counted as 12 releases (assuming all 12 were released during reporting period); count quarterly as 4 releases, etc.

Data-related indicators

This section assesses the production of three specific datasets that are viewed as representative of the broad economic, demographic, and social statistical domains.

The production of each dataset is to be assessed according to 18 indicators covering the following aspects of the statistical operations: Institutional Prerequisites (6), Integrity (2); Methodological Soundness (1); Accuracy and Reliability (4); Serviceability (3); and Accessibility (2).

One single agency may produce the three datasets (e.g., a central statistical agency produces GDP, population statistics, and household income/expenditure). In such cases, the assessment may be similar across datasets for certain dimensions. For instance, the indicators that are concerned with the *Prerequisites*, *Integrity*, *Serviceability*, and *Accessibility* dimensions may apply agency-wide and would therefore be similar across datasets. The indicators under *Methodological soundness* and *Accuracy and reliability* are likely to differ across statistical datasets. However, there may be elements of *Accuracy and reliability* that are the same across domains. For instance, this may occur if a separate department deals with surveys, censuses, and administrative records supporting all or several domains (e.g., all social statistics or all economic statistics) of the agency.

For each statistic output, the 18 indicators are to be assessed according to a four-level range. Each level is provided with a benchmark description (see below). The benchmark description of each indicator covers several aspects; they are identified separately for each of the four levels through a uniform number code.

Gradation for each of the ratings is relative, descending from 4 to 1, with level 4 defined to provide optimal conditions for statistical production, and level 1 the least favorable conditions. For each indicator, the four-level benchmarks should be read before selecting the level that describes most closely the actual circumstances of the data-producing agency involved in each statistical output. Please report the level where *the majority* of conditions specified in the level are met.

Level 4 would apply to highly developed statistical activities with respect to the corresponding indicator; level 3 refers to moderately well-developed activities with reference to a particular indicator; level 2 refers to activities that are developing but still have many deficiencies; and level 1 to activities that are underdeveloped. Appropriate ratings for countries in need of external technical support would identify those dimensions and/or domains that would require such assistance; generally, ratings of 3 or 4 would not justify any external support.

National Statistical Office: Please identify if there is a national statistical office, if it has a strategic plan and, if so, the latest year that the plan was updated.

Benchmark Descriptions for Data-related indicators

0. Prerequisites of Quality			
0.1 Collection of information and preservation of confidentiality guaranteed by law and effective			
<i>Level 4</i>	<i>Level 3</i>	<i>Level 2</i>	<i>Level 1</i>
<p>(i) There is effective access in practice to information (collection of basic information required and access to public sector administrative information) as provided for by the statistical legislation.</p> <p>(ii) The legislation gives the data-producing agencies full responsibility to compile and disseminate a range of statistics.</p> <p>(iii) The legislation provides that all individual source data must be used for statistical purposes only and remain confidential (unless the respondent consents to release).</p> <p>(iv) There are prescribed penalties for breach of confidentiality that act as an effective deterrent to non-compliance. The current judicial system ensures that statistical legislation can be enforced.</p>	<p>(i) There is limited effective access in practice to the information (collection of basic information required and access to public sector administrative information) even if such access is provided for by the statistical legislation.</p> <p>(ii) The legislation gives the data-producing agencies responsibility to compile and disseminate a range of statistics</p> <p>(iii) The legislation provides that all individual source data be used for statistical purposes only and remain confidential (unless the respondent consents to release).</p> <p>(iv) The penalties for disclosure of confidential information are somewhat inadequate as a deterrent to non-compliance. The current judicial system is sufficiently developed to ensure broad enforcement of statistical legislation.</p>	<p>(i) There is no effective access in practice to the information (collection of basic information required and access to public sector administrative information) even if such access is provided for by the statistical legislation.</p> <p>(ii) The legislation does not specify the responsibility to compile and disseminate a range of statistics.</p> <p>(iii) There is no clear statement about the confidentiality of individual data.</p> <p>(iv) There are no penalties for disclosure of individual data. The current judicial system cannot adequately ensure enforcement of statistical legislation.</p>	<p>(i) Statistical legislation is non-existent, gives no access to public sector administrative information.</p> <p>(ii) No responsibility is specified by law to compile and disseminate the statistics.</p> <p>(iii) There is no preservation of the confidentiality of individual data.</p> <p>(iv) There are no penalties for disclosure of individual data. The current judicial system cannot ensure enforcement of statistical legislation.</p>
0.2 Effective coordination of statistics			
<p>(i) Legal or other formal arrangements/procedures clearly specify the responsibilities for coordination of statistical work and promotion of statistical standards, and this is implemented effectively through:</p> <p>(ii) Development of a coordinated national program of statistical activities; identification of data gaps in meeting users' needs; elimination of duplication of statistical effort, including joint statistical collection activities and/or data sharing as needed.</p> <p>(iii) Promotion of standard frameworks, concepts, classifications, and methodologies throughout the data-producing agencies.</p>	<p>(i) Legal or other formal arrangements/procedures allocate responsibility for coordination of statistical work, but this is not fully effective in practice.</p> <p>(ii) There is some (but not significant) data gaps and/or duplication of statistical effort.</p> <p>(iii) Standard frameworks, etc. are promoted but there are some instances of non-compliance.</p>	<p>(i) Legal or other formal arrangements/procedures do not allocate responsibility for coordination of statistical work, and coordination does not occur.</p> <p>(ii) There is significant data gaps in certain areas and/or duplication of statistical effort (statistical outputs produced by different agencies may lack consistency and coherence).</p> <p>(iii) Standard frameworks etc. are not actively promoted and there is significant non-compliance.</p>	<p>(i) There is no legal or other formal arrangements/ procedures that specify responsibility for coordination of statistical work.</p> <p>(ii) There is significant data gaps and duplication of statistical effort.</p> <p>(iii) Standard frameworks, etc. are not promoted and are generally not observed. Data-producing agencies may produce and use statistical outputs that are in conflict with those produced by others.</p>

0. Prerequisite of Quality			
0.3 Staff level and expertise adequacy			
<i>Level 4</i>	<i>Level 3</i>	<i>Level 2</i>	<i>Level 1</i>
<p>(i) The number of staff is sufficient to handle ongoing statistical activities and to develop the outputs to meet priority emerging needs.</p> <p>(ii) Salary levels and work conditions are adequate for the nature of the work and competitive with public administration conditions in the country.</p> <p>(iii) Staff turnover is manageable.</p> <p>(iv) Most, if not all, staff is educated to the levels required.</p> <p>(v) Most staff has adequate competencies for the tasks required (leadership/ management; methodology; statistical standards; survey design and methods; questionnaire design; information and communications technology; data dissemination; writing and presentation; etc.) and are used effectively (that is skills are used continuously and so are maintained and developed).</p> <p>(vi) A high degree of skills transfer has occurred as a result of technical assistance provided to the country.</p> <p>(vii) There is freedom to directly recruit staff with the required educational background and skills (within the budget available), and education institutions provide a good supply of suitable qualified personnel.</p> <p>(viii) The allocation of resources between projects within the agency/unit, and between head/regional offices is consistent with workloads and user priorities.</p>	<p>(i) The number of staff is barely sufficient to handle ongoing statistical activities, and insufficient to develop outputs to meet priority emerging needs.</p> <p>(ii) Salary levels and work conditions are somewhat inadequate for the nature of the work and barely competitive with public administration conditions in the country.</p> <p>(iii) Staff turnover sometimes poses difficulties.</p> <p>(iv) A high proportion of the staff is educated to the levels needed, but there is not a critical mass of resource for all of the specialist skills specified in Level 4 (v).</p> <p>(v) Existing staff in some instances may not be used effectively (insufficient level of activity to use their skills regularly).</p> <p>(vi) A limited amount of skills transfer has occurred as a result of technical assistance provided to the country.</p> <p>(vii) There is freedom to directly recruit staff with the required educational background and skills (within the budget available), and there is a reasonable supply of suitably qualified personnel.</p> <p>(viii) Allocation of resources between projects within the agency/unit, and between head/regional offices, is reasonable but not optimal.</p>	<p>(i) The number of staff is clearly insufficient to handle ongoing statistical activities.</p> <p>(ii) Salary levels and work conditions are inadequate for the nature of the work and not competitive with public administration conditions in the country.</p> <p>(iii) The loss of skilled staff is a significant problem.</p> <p>(iv) A significant proportion of staff does not have the levels of general education needed or there is an absence of some of the specialist skills needed.</p> <p>(v) Staff perform tasks that may be below (such as clerical work by specialists) or beyond their skills (such as specialist work that would better be undertaken by specialists).</p> <p>(vi) Little or no skills transfer has occurred as a result of technical assistance provided to the country.</p> <p>(vii) Staff recruitment may be determined by civil service-wide processes and may not result in staff with the skills needed for the statistical work. There may also be an inadequate supply of suitable qualified personnel.</p> <p>(viii) Allocation of resources between projects within the agency/unit, and between head/regional offices, is generally not consistent with workloads and user priorities.</p>	<p>(i) The number of staff is clearly inadequate to handle ongoing statistical activities.</p> <p>(ii) Salary levels and work conditions are inadequate for the nature of the work and not competitive with public administration conditions in the country.</p> <p>(iii) The loss of skilled staff is a major problem.</p> <p>(iv) A substantial proportion of staff does not have the levels of general education required and there is an absence of staff with the specialist skills needed.</p> <p>(v) Staff perform tasks that are below (such as clerical work by specialists) or beyond their skills (such as specialist work that would better be undertaken by specialists).</p> <p>(vi) Virtually no skills transfer has occurred as a result of technical assistance provided to the country.</p> <p>(vii) Recruitment is determined by civil service-wide practices and results in appointments of staff lacking the education and skills required.</p> <p>(viii) There are significant cases where the allocation of resources between projects within the agency/unit, and between head/regional offices, is totally inconsistent with workloads and user priorities.</p>

0. Prerequisite of Quality			
0.4 Buildings, equipment and internet support adequacy			
<i>Level 4</i>	<i>Level 3</i>	<i>Level 2</i>	<i>Level 1</i>
<p>(i) Office buildings for data-producing agencies are structurally sound and provide good physical security, including access only by approved persons, and fully protected computer facilities and procedures.</p> <p>(ii) The accommodation is adequate in size and is well serviced (lighting, power, heat, cooling, communications).</p> <p>(iii) Office furniture and equipment (desks, chairs, filing cabinets, computers and related equipment, software, telephones, etc.) are adequate to perform required tasks.</p>	<p>(i) Office buildings for data-producing agencies are structurally sound and provide adequate physical security, although there is some scope for improvement in restricting access to approved persons, and/or providing fully protected computer facilities and procedures.</p> <p>(ii) The accommodation is somewhat deficient in space or services (lighting, power, heat, cooling, communications).</p> <p>(iii) Office furniture and equipment are reasonably adequate to perform required tasks.</p>	<p>(i) Office buildings for data-producing agencies are reasonably sound structurally, but some aspects of physical security and protection of computer facilities are inadequate.</p> <p>(ii) The accommodation is deficient in space, or services (lighting, power, heat, cooling, communications) involve intermittent failure.</p> <p>(iii) Office furniture and equipment are inadequate to the point of having a significant impact on the efficiency and effectiveness of the statistical activities.</p>	<p>(i) Office buildings for data-producing agencies are structurally unsound and physical security issues are not addressed (e.g., in terms of restricting access to approved persons, and fully protected computer facilities and procedures).</p> <p>(ii) The accommodation is seriously inadequate in space, or services (lighting, power, heat, cooling, communications) are irregular and suffer intermittent serious failure.</p> <p>(iii) Office equipment is seriously inadequate to the point of hampering statistical activities.</p>
0.5 Planning, monitoring and evaluating measures implemented			
<p>(i) Management information systems are <i>all</i> used regularly for all of the 7 areas listed below.</p> <p>(ii) In response to changing priorities, management has flexibility to redirect resources between statistical projects within the agency, and between head/ regional offices.</p> <p>(iii) Evaluations of statistical activities are conducted periodically by the data-producing agency.</p> <p>(iv) Evaluation of project activities by external funding agencies are well integrated with the monitoring process of the data-producing agency</p>	<p>(i) Management information systems are used regularly for <i>at least five</i> of the 7 areas listed below.</p> <p>(ii) In response to changing priorities, management has some limited flexibility to redirect resources between statistical projects within the agency or between head/regional offices.</p> <p>(iii) Very occasional evaluations of statistical activities are conducted by the data-producing agency.</p> <p>(iv) They are generally no integration of the evaluation of project activities by external funding agencies with the monitoring process of the data producing agency</p>	<p>(i) Management information systems are used regularly to cover <i>only two to four</i> of the 7 areas listed below.</p> <p>(ii) Management cannot respond to changing priorities due to considerable limits on the flexibility to redirect resources between statistical projects within the agency or between head/regional offices (e.g. budgetary funds not disbursed when required).</p> <p>(iii) No significant evaluations of statistical activities by the data-producing agency have been conducted.</p> <p>(iv) Evaluation of project activities by external funding agencies conducted independently of the processing activities of the data-producing agency.</p>	<p>(i) Management information systems are not used for regularly monitoring the performance of the data producing agency in any of the 7 areas listed below.</p> <p>(ii) Management has little or no flexibility to redirect resources and to get access to budgetary funds.</p> <p>(iii) No evaluations of statistical activities have been conducted by the data-producing agency.</p> <p>(iv) No evaluations of project activities by external funding agencies have been conducted</p>
<p>1) <i>Strategic (or corporate) plans that articulate vision, goals, and strategies.</i></p> <p>2) <i>Annual work programs for the data-producing agency and its major components.</i></p> <p>3) <i>Establishing and monitoring budget expenditures and revenues.</i></p>	<p>4) <i>Performance of major projects in terms of costs, staff numbers and product sale.</i></p> <p>5) <i>Costs of particular inputs; e.g., cost of processing a population census schedule, and an economic census questionnaire.</i></p>	<p>6) <i>Records of staff participation in internal and external training, including international/ regional seminars, courses, etc.</i></p> <p>7) <i>Individual staff performance and feedback.</i></p>	

0. Prerequisite of Quality			
0.6 Organizational focus on quality			
<i>Level 4</i>	<i>Level 3</i>	<i>Level 2</i>	<i>Level 1</i>
<p>(i) Management promotes a strong focus on quality.</p> <p>(ii) The various aspects of quality are monitored, problems and suggestions for improvements acted upon, quality reviews conducted periodically, and innovation is actively promoted.</p> <p>(iii) These activities lead to significant improvements in specific aspects of quality, such as timeliness.</p> <p>(iv) This is supported by practical policy and procedure manuals for collection, processing, and dissemination, which are kept up-to-date, and regularly utilized by staff.</p>	<p>(i) Management emphasizes quality.</p> <p>(ii) Problems and suggestions for improvements are logged and acted upon where appropriate, but there is no systematic process of review of quality.</p> <p>(iii) Innovation leads sporadically to some improvements in aspects of quality, such as timeliness.</p> <p>(iv) Practical policy and procedure manuals for collection, processing, and dissemination are maintained, but may be used irregularly by staff.</p>	<p>(i) Management does not specially emphasize quality.</p> <p>(ii) Logging of problems and suggestions for improvements are limited, and there is no systematic process to improve upon existing activities.</p> <p>(iii) There is not a strong focus on innovation.</p> <p>(iv) A limited number of practical policy and procedure manuals for collection, processing, and dissemination may exist for some areas and they are rarely used by staff.</p>	<p>(i) Management does not refer to quality.</p> <p>(ii) Established processes for logging of problems and suggestions for improvements do not exist,</p> <p>(iii) There is no focus on innovation.</p> <p>(iv) No practical policy and procedure manuals for collection, processing, and dissemination exist.</p>
1. Integrity			
1.1. Independence of the statistical operations			
<p>(i) A strong and well-established culture of professional independence exists, often protected by legal or institutional provisions and/or statistical traditions (e.g., the choice and tenure of senior management, reporting arrangements of the agencies and a body providing high level policy guidance and protection from political interference).</p> <p>(ii) Choices of sources and statistical guidelines and techniques, and the content and timing of statistical releases, are based solely on statistical considerations, without any outside interference. Senior staff can and do make public comments on statistical issues, including in response to criticisms of statistics and statistical methods.</p>	<p>(i) The culture of professional independence is largely established.</p> <p>(ii) However, some of the statistical activities listed in Level 4 (e.g., the content and timing of statistical release) are subject to formal or informal clearance by ministers or senior policy officials.</p>	<p>(i) There is professional independence in some respects.</p> <p>(ii) However, a number of statistical activities are subject to formal or informal clearance by ministers or senior policy officials.</p>	<p>(i) Professional independence is not recognized as necessary for statistical operations.</p> <p>(ii) Any aspect of the statistical function could be subject to formal or informal approval by ministers or senior policy officials.</p>

1. Integrity			
1.2 Culture of professional and ethical standards			
<i>Level 4</i>	<i>Level 3</i>	<i>Level 2</i>	<i>Level 1</i>
<p>(i) A strong and well-established culture of professional and ethical practice provides the climate in which daily work takes place.</p> <p>(ii) It covers the absolute preservation of confidentiality, scientific objectivity, developing and maintaining professional competencies (through training or seminars), impartiality of release and access, user consultation and serving all users.</p> <p>(iii) It is supported by policies and clear guidelines on staff behavior, as well as by transparency about the statistical process.</p> <p>(iv) Transparency entails disseminating the terms and conditions of the statistical process, inclusive of access to data before their release, giving advance notice of changes in processes, and publication of an annual report on activities.</p>	<p>(i) The need for strong professional practice is acknowledged.</p> <p>(ii) In practice there may be instances where individual data may be used for non-statistical purposes where staff professional development and training are not actively promoted, or where users are not consulted/served.</p> <p>(iii) Corporate policies and practices do not specifically reinforce professionalism and integrity.</p> <p>(iv) The public is provided with some information on the terms and conditions of the statistical process. Explanations of major changes are published at the time the statistical outputs are disseminated, but not in advance.</p>	<p>(i) The need for strong professional practice is not acknowledged.</p> <p>(ii) Some aspects of professional practice are effectively neglected in day-to-day work practices.</p> <p>(iii) Policies and written practices are non-existent concerning the professional and ethical aspects of staff behavior.</p> <p>(iv) The public is not informed of the terms and conditions of the statistical process.</p>	<p>(i) There is effectively no established culture of professional practice.</p> <p>(ii) Aspects of professional practice are so neglected that many aspects of professional practice have no impact on daily work.</p> <p>(iii) Policies and written practices are non-existent concerning the professional and ethical aspects of staff behavior.</p> <p>(iv) The public is not informed about the terms and conditions of the statistical process.</p>
2. Methodological Soundness			
2.1 International / regional standards implemented			
<p>(i) Current internationally accepted (and, where appropriate, regional) concepts are used and adjusted to national needs where appropriate.</p> <p>(ii) The scope of the statistical output(s) is broadly consistent with current internationally accepted standards.</p> <p>(iii) A large variety of international classifications and correspondence tables is used to link macro aggregates with micro data and they are applied at a very detailed level of breakdown.</p> <p>(iv) International statistical frameworks ensuring harmonization across concepts are used to a very large extent.</p>	<p>(i) Current internationally accepted (and, where appropriate, regional) concepts are largely used although there are some statistical areas of non-compliance that have <i>moderate</i> impact on the comparability of the statistical outputs.</p> <p>(ii) The scope of the statistical outputs is more limited than current internationally accepted standards.</p> <p>(iii) A limited number of international classifications and correspondence tables is used to link macro aggregates with micro data and they are applied to moderately detailed level of breakdowns</p> <p>(iv) International statistical frameworks ensuring compatibility of concepts are used to some extent.</p>	<p>(i) Current internationally accepted (and, where appropriate, regional) concepts are used to some extent, but there are substantial areas of non-compliance that have a <i>substantial</i> effect on the comparability of the statistical outputs.</p> <p>(ii) The scope of statistical outputs is very limited compared to current internally accepted standards.</p> <p>(iii) Only one or more basic international classifications are used (e.g., ISIC) to link macro aggregates with micro data and no use is made of correspondence tables.</p> <p>(iv) International statistical frameworks introducing compatibility of concepts are not used.</p>	<p>(i) Current internationally accepted (and, where appropriate, regional) concepts are not used, leading to a lack of comparability of the statistical outputs.</p> <p>(ii) The scope of the statistical outputs cannot be related to current internationally accepted standards.</p> <p>(iii) The classifications differ across statistical outputs and no use is made of correspondence tables.</p> <p>(iv) Statistical frameworks are effectively not used.</p>

3. Accuracy and Reliability			
3.1 Adequacy of source data			
<i>Level 4</i>	<i>Level 3</i>	<i>Level 2</i>	<i>Level 1</i>
<p>(i) The source data are of high quality for statistical purposes and relate to the entire target population.</p> <p>(ii) For information collected, survey design is sound in capturing the required information; it is regularly reviewed and revised as required, and so is the sample selection.</p> <p>(iii) The business register and population frames are of high quality and serve as common infrastructure to support a mix of core surveys and supplementary data collection.</p> <p>(iv) For administrative sources, the definitions and concepts used for the administrative purpose provide a good approximation to those required for statistical purposes, with little adjustment needed to exploit the detailed administrative information for statistical purposes.</p>	<p>(i) The source data are generally suitable for the statistical purpose. The target population may be incomplete but this deficiency does not seriously invalidate use of the data.</p> <p>(ii) Survey design is generally soundly based for capturing the required information; however, survey design, and also sample selection, may not be reviewed and revised as required.</p> <p>(iii) The business register and population frame are generally suitable for the statistical purposes.</p> <p>(iv) For administrative sources, the definitions and concepts used may not be ideal for statistical purposes but provide a close approximation to those required. The deficiencies are understood and do not seriously invalidate the main statistical purposes.</p>	<p>(i) The source data have appreciable deficiencies in terms of the target population, allowing only a partial statistical picture to be derived.</p> <p>(ii) This limits the effectiveness of survey design and sample selection for information collected.</p> <p>(iii) The business register and population frame have appreciable deficiencies for statistical purposes</p> <p>(iv) For administrative sources, the definitions and concepts used for the administrative purpose deviate significantly from the primary purposes for which the statistics are required, and/or effectively inhibits use for statistical purposes.</p>	<p>(i) The source data have serious deficiencies for statistical purposes, and important parts of the target population are missing or severely underrepresented.</p> <p>(ii) Survey design may be seriously inadequate, omitting important geographical or other sections of the population, in the information collected.</p> <p>(iii) The business register and population frame have serious deficiencies for statistical purposes</p> <p>(iv) Administrative sources have important discrepancies from those ideally required, undermining their use.</p>
3.2 Response monitoring			
<p>(i) Response rates to surveys and censuses are consistently monitored (e.g., field checks), reported, and reviewed.</p> <p>(ii) There is an active program of understanding variation of response rates across different types of respondents and an ongoing practice of research and initiative taking (through pilot tests if appropriate) to achieve improvements.</p> <p>(iii) Statistically valid methods are used for imputing and adjusting for non-response in order to minimize bias arising from non-response.</p>	<p>(i) Reasonable attempts are made to monitor, report and review response rates to surveys and censuses.</p> <p>(ii) There is some attempt to understand variation in response rates across different types of respondents, with at least one attempt to achieve improvements in the last three years.</p> <p>(iii) There is some use of statistically valid methods to impute and adjust for non-response in order to minimize bias arising from non-response.</p>	<p>(i) Limited attempts are made to monitor, report and review response rates to surveys and censuses, but</p> <p>(ii) There is no active process to use this information to promote accuracy improvements.</p> <p>(iii) There is little if any use of statistically valid methods to impute and adjust for non-response in order to minimize bias arising from non-response.</p>	<p>(i) Response rates are generally not monitored (e.g., no field checks) and reported.</p> <p>(ii) -</p> <p>(iii) There is no attempt to impute and adjust for non-response to surveys and censuses in order to minimize bias arising from non-response.</p>

3. Accuracy and Reliability			
3.3 Validation of administrative data			
<i>Level 4</i>	<i>Level 3</i>	<i>Level 2</i>	<i>Level 1</i>
<p>(i) Effective continuing contact is maintained with the administrative authority that provides the source data. Opportunities for use of additional administrative data are actively pursued.</p> <p>(ii) Administrative data are frequently used for statistical purposes. An active process is in place to evaluate the accuracy of the administrative data for statistical purposes, to compare their aggregate value with aggregates obtained from other sources, and to check their comparability and internal consistency with individual survey results, if available (identifying, investigating, reconciling differences, and amending where necessary).</p> <p>(iii) Changes to administrative processes that may affect data relevance or accuracy (e.g., coverage, definitions, classifications) are discussed before they occur.</p> <p>(iv) The opportunity to improve statistical functionality when the administrative system is upgraded is readily available.</p>	<p>(i) Regular contact is maintained with the administrative authority that provides source data. Opportunities for use of additional administrative data are not actively pursued.</p> <p>(ii) There is only limited use of administrative records for statistical purposes. The processes in place to check their accuracy for statistical purposes are limited.</p> <p>(iii) Changes to the administrative processes or systems are identified in advance.</p> <p>(iv) There is some opportunity to influence changes to take account of statistical purposes, albeit with difficulty.</p>	<p>(i) Irregular contact is maintained with the administrative authority and there is no attempt to extend the use of administrative data for statistical purposes.</p> <p>(ii) There is only ad-hoc use of administrative records for statistical purposes.</p> <p>(iii) Changes to the administrative processes or systems are known only when they occur, leading to discontinuities to the statistical series.</p> <p>(iv) There is effectively no possibility to influence the planned changes for statistical purposes</p>	<p>(i) Access to the administrative source is difficult or denied, and therefore</p> <p>(ii) Administrative data are practically not used for statistical purposes.</p> <p>(iii) If administrative data were used for statistical purposes, data accuracy would be unsatisfactory.</p> <p>(iv) Changes to the administrative data occur with no notice to the statistical staff.</p>
3.4 Validation of data sources and of intermediate and final outputs			
<p>(i) An active process is in place to check the comparability and internal consistency of data from individual survey and census questionnaires.</p> <p>(ii) Comparison is made of aggregates derived from those with related datasets of earlier years, and with data from other data sources based on surveys and administrative data (identifying, investigating, reconciling differences, and amending where necessary).</p> <p>(iii) Assessment and validation of intermediate data and statistical outputs are carried out, including investigating statistical discrepancies.</p> <p>(iv) Revision studies are undertaken regularly to assess the reliability of preliminary data, and to improve upon the production of subsequent preliminary estimates.</p>	<p>(i) Some processes are in place to check the internal consistency of data from individual survey and census questionnaires.</p> <p>(ii) Some comparisons are made of aggregates derived from those with related datasets of earlier years with data from other data sources based on surveys and administrative records. However,</p> <p>(iii) Intermediate data and statistical outputs are not validated against other data.</p> <p>(iv) Some form of revision studies may be conducted to assess the reliability of preliminary data, but the findings are not used to improve the production of subsequent preliminary estimates.</p>	<p>(i) Limited processes are in place to check the internal consistency of data from individual survey and census questionnaires.</p> <p>(ii) Few, if any, comparisons are made with related datasets of earlier years and with data from other data sources based surveys and administrative records, and</p> <p>(iii) Intermediate data and statistical outputs are not validated against other data.</p> <p>(iv) No revision studies are conducted.</p>	<p>(i) No effective internal consistency checks are made for individual questionnaires.</p> <p>(ii) No effective comparisons are made with related datasets of earlier years and with data from other data sources based surveys and administrative records.</p> <p>(iii) Intermediate data and statistical outputs are not validated against other data.</p> <p>(iv) No revision studies are conducted.</p>

4. Serviceability			
4.1 User consultation			
<i>Level 4</i>	<i>Level 3</i>	<i>Level 2</i>	<i>Level 1</i>
<p>(i) A strong culture of systematically consulting users and other experts from within and outside government is actively promoted. These consultations, both formal and informal, cover relevance of current statistical outputs (how accuracy and reliability are perceived, usefulness of outputs including presentation and interpretation), data gaps, emerging needs, priorities, and user perceptions of professionalism and integrity.</p> <p>(ii) These consultations are built into the corporate processes and influence decisions on the work program and developments.</p> <p>(iii) The data-producing agency is generally regarded by others as a professional, independent, objective, and valued organization.</p>	<p>(i) Users are consulted on all or almost all of the items listed in level 4 (i).</p> <p>(ii) The process is not fully embedded within decision-making processes and some user constituencies may be neglected.</p> <p>(iii) The data-producing agency is generally regarded by others as professional, independent, objective and valued.</p>	<p>(i) There is some contact with users but this is unsystematic (substantial proportion of the items listed in level 4 (i) are not covered), and this may be due, inter alia, to location of statistical office far away from key users.</p> <p>(ii) The consultative process is not related to internal decision-making processes. Some important user groups may not be involved.</p> <p>(iii) The data-producing agency is not particularly well regarded by others in terms of its professionalism, independence, objectivity and value to the community.</p>	<p>(i) There is no effective contact with users (except perhaps key ministries) and what user contact occurs covers only a small fraction of the items listed in level 4 (i) (e.g., location of statistical office far away from key users).</p> <p>(ii) There is no follow-up on contact with users.</p> <p>(iii) The data-producing agency is not well regarded by others in terms of its professionalism, independence, objectivity and value to the community.</p>
4.2 Timeliness of statistical output			
The statistical outputs are released well ahead of the time limits of the relevant GDDS recommendations (and approach or are within the SDDS for macroeconomic datasets).	The statistical outputs are released within the time limits of the relevant GDDS recommendations.	The time to release the statistical outputs is within 1.5 times the time limits of the relevant GDDS recommendations.	The time to release the statistical outputs is more than 1.5 times the time limits of the relevant GDDS recommendations, or there is no regular program for release of the statistical outputs.
4.3 Periodicity of statistical output			
The frequency of the statistical outputs exceeds the relevant GDDS recommendations (and approaches or is within the SDDS for macroeconomic datasets).	The frequency of the statistical outputs meets the relevant GDDS recommendations.	The frequency of the statistical outputs does not meet the relevant GDDS recommendations.	There is no regular program for release of the statistical output and the timing of future editions is uncertain.

5. Accessibility			
5.1 Effectiveness of dissemination			
<i>Level 4</i>	<i>Level 3</i>	<i>Level 2</i>	<i>Level 1</i>
<p>(i) Statistical outputs are released simultaneously to all users and are produced in various media (e.g., publications, CD-ROM, diskettes, web sites, email, media releases, libraries).</p> <p>(ii) Statistical outputs are well designed and clear to follow, and charts and graphs are used to convey understanding.</p> <p>(iii) Text identifies key aspects of the release for users and provides impartial interpretation. Detailed data (e.g., by geographic areas, or kinds of units) are presented to support users needs.</p> <p>(iv) Seasonal and other analytical series are provided where appropriate.</p> <p>(v) Preliminary data and revised data are clearly identified, and explanations on revisions provided periodically; the revision policy is well publicized.</p> <p>(vi) Advance release calendars inform the public of planned release dates for products.</p> <p>(vii) Products are released in accord with advance release calendars.</p>	<p>(i) Statistical outputs may be released to users at different times and are produced in only some of the available media.</p> <p>(ii) The statistical outputs are mainly in short text and tables.</p> <p>(iii) There is some interpretation of key findings (but little beyond stating that a value has risen or fallen). Graphs or charts are used rarely and add relatively little value. Detailed data are available in only some topics.</p> <p>(iv) There are few analytical series.</p> <p>(v) Preliminary data and revised data are not always clearly identified, and the revision policy is not publicized.</p> <p>(vi) Advance release calendars inform the public of planned release dates for products.</p> <p>(vii) Products are generally released in accord with advance release calendars.</p>	<p>(i) Statistical outputs may be released to users at different times and are produced in only limited media.</p> <p>(ii) Statistical outputs consist largely of tables that are difficult to digest and with minimal amount of explanatory text. Charts and graphs not produced.</p> <p>(iii) Key findings are not identified.</p> <p>(iv) There are no analytical series.</p> <p>(v) Preliminary data and revised data are not identified, nor is the revision policy publicized.</p> <p>(vi) Advance release calendars are released.</p> <p>(vii) Products are generally not released in accord with advance release calendars.</p>	<p>(i) Statistical outputs are produced only as part of other data.</p> <p>(ii) Statistical outputs consist of a few key figures and little else.</p> <p>(iii) There is no interpretation of the statistical outputs.</p> <p>(iv) There are no analytical series.</p> <p>(v) Statistical outputs are not revised.</p> <p>(vi) There are no advance release calendars.</p> <p>(vii) The timing of release of the statistical outputs varies at various periods.</p>
5.2 Updated metadata			
<p>(i) A full range of information on underlying concepts, definitions, classifications, methodology, data sources, accuracy, etc. is documented, available and freely accessible to users and kept up to date.</p> <p>(ii) Catalogs of data products are widely available and updated regularly.</p> <p>(iii) Specific measures, such as on data accuracy, are made available at the time of release of the outputs.</p>	<p>(i) Most information is available but there are some deficiencies-either in the completeness, or in how up-to-date it is. For example, descriptions, definitions and standards may not describe the current version; latest measures of accuracy may not be automatically added when the latest release occurs, or</p> <p>(ii) Partial catalogs, or sample lists of products, are available, but may not be widely available and may not be updated regularly.</p> <p>(iii) Some information on data accuracy is made available.</p>	<p>(i) Some parts of the documentation are available but there are significant gaps and,</p> <p>(ii) Catalogs or lists of products are not readily available and they are dated.</p> <p>(iii) No information on data accuracy is made available.</p>	<p>(i) Very little information is documented and is effectively inaccessible to users.</p> <p>(ii) No catalog or list of products is available.</p> <p>(iii) No information on data accuracy is made available.</p>

Annex 2: Statistical Capacity Building (SCB) Indicators - International and National Use

Annex 2.1. Mozambique: SCB Indicators, INTERNATIONAL USE

Annex 2. 1. Bolivia: SCB Indicators, INTERNATIONAL USE

Annex 2.2 Mozambique: SCB Indicators, NATIONAL USE

Annex 2.2 Bolivia: SCB Indicators, NATIONAL USE

Statistical Capacity Building (SCB) Indicators, INTERNATIONAL USE

Country: Mozambique

Population: 18.3 million

Reporting Year: 2001

System-wide indicators					
Data produced and published (Please provide <u>latest year of reference</u> to which the data apply, and provide name of principal data producing agency)					
Data category	Ref. Year	Agency Name	Data category	Ref. Year	Agency Name
National accounts	2000	INE	Industry	2001	INE (economic survey)
Price statistics	2001	INE	Energy	2001	INE (economic survey)
Balance of payments	2001	Banco Central	Communication	2001	INE (economic survey)
Money, finance and insurance	2001	Banco Central	Transport	2001	INE (economic survey)
International trade (merchandise)	2000	INE	Tourism	2001	INE (economic survey)
Population	1999	INE	Culture	2001	INE (economic survey)
Household income/expenditure	2001	INE	Natural resources and environment	N/A	INE
Health	2001	Ministry of Health	Other (specify) <i>Government finance</i>	2001	Banco Central
Education	2001	Ministry of Education	Other (specify) <i>Construction</i>	2001	INE
Labor force statistics	N/A	N/A	Other (specify) <i>Gender</i>	2001	INE
Agriculture, Forestry, and Fisheries	2001	Min. of Agriculture	Other (specify) <i>Crime and Justice</i>	2001	INE
Distributive trade	2001	INE (economic survey)	Other (specify)		

Agency-related indicators (during reporting year)				
Agency producing the statistics on:	1. GDP	2. Population (report if agency is different from #1)	3. Household income/expenditure data (report if agency is different from #1, 2)	4. Total
Agency Name	INE/Contas Nacionais	INE/Department of Demographic, vital and social statistics		--
Government funding				
Current (Amount, currency)	US\$ 0.94 million	See GDP data		US\$ 0.94 million
Capital (Amount, currency)	US\$ 0.58 million			US\$ 0.58 million
Donor funding				
Funds (Amount, currency)	US\$ 2.41 million	N/A		US\$ 2.41 million
TA expert working days	N/A	N/A		
Donor agency (name)				
	World Bank, Norway, Sweden, Denmark, UNICEF, UNDP, UNIDO, Italy, EU, Portugal, USAID			
Statistical staff (regular staff, full-time equivalent)				
Number	344	See GDP data		344
Turnover (%)	1.5%	See GDP data		1.5%
ICT equipment				
Main frame (Yes/No)				
Internal network (Yes/No)				
Internet dissemination (Yes/No)	129	N/A		129
PCs in use (number)	Yes (limited)	Yes (limited)		
Website (address)				
Source data conducted (number) (a monthly survey/administrative source counts as one source not 12; a quarterly counts as one source not 4)				
Household surveys/censuses	0	1		1
Other surveys/censuses	5	4		9
Administrative sources	13	3		16
Data releases (a monthly counts as 12 releases; a quarterly counts as 4 releases)				
Publications/Yearbooks	18/2	16/0		34/2
Other releases	1	0		1

Statistical Capacity Building (SCB) Indicators, INTERNATIONAL USE (end)

Country: Mozambique

Reporting Year: 2001

Data-related indicators			
	1. GDP	2. Population	3. Household Income/Expenditure
Agency name:	INE		
Rating scale:	4: Highly developed; 3: Developed; 2: Largely Undeveloped; 1: Undeveloped		
0. Prerequisites:			
0.1 Collection of information and preservation of confidentiality guaranteed by law and effective	3		3
0.2 Effective coordination of statistics	2		2
0.3 Staff level and expertise adequacy	3		3
0.4 Buildings and equipment adequacy	2		2
0.5 Planning, monitoring and evaluation measures implemented	2		2
0.6 Organizational focus on quality	2		2
1. Integrity:			
1.1 Independence of statistical operations	3		3
1.2 Culture of professional and ethical standards	2		2
2. Methodological soundness:			
2.1 International/regional standards implemented	3		3
3. Accuracy and reliability:			
3.1 Source data adequacy	2		2
3.2 Response monitoring	2		3
3.3 Validation of administrative data	2		2
3.4 Validation of intermediate and final outputs	3		2
4. Serviceability:			
4.1 User consultation	2		3
4.2 Timeliness of statistical outputs	2		2
4.3 Periodicity of statistical outputs	2		2
5. Accessibility:			
5.1 Effectiveness of dissemination	2		2
5.2 Updated metadata	2		2
Contact person: Mr. Said Dade; Institution: INE; Telephone no: (258-1) 490 930; E-mail address: dade@ine.gov.mz			
Name of national statistical office (NSO), if any:			
Does the NSO have a strategic plan?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Date of Production _____

Statistical Capacity Building (SCB) Indicators, INTERNATIONAL USE

Country : Bolivia

Population: 8.3 million

Reporting Year : 2001

System-wide indicators					
Data produced and published (Please provide latest year of reference to which the data apply, and provide name of principal data producing agency)					
Data category	Ref. Year	Agency Name	Data category	Ref. Year	Agency Name
National accounts	2001	INE	Industry	2001	INE (economic survey)
Price statistics	2001	INE	Energy	2001	INE (economic survey)
Balance of payments	2001	Banco Central	Communication	2001	INE (economic survey)
Money, finance and insurance	2001	Banco Central	Transport	2001	INE (economic survey)
International trade	2001	INE	Tourism	2001	INE (economic survey)
Population	2001	INE	Culture	N/A	N/A
Household income/expenditure	2001	INE	Natural resources and environment	2001	Ministry of Environment
Health	2001	Ministry of Health	Other (specify) <i>Government finance</i>	2001	Banco Central
Education	2001	Ministry of Education	Other (specify)		
Labor force statistics	2001	INE	Other (specify)		
Agriculture, Forestry, and Fisheries	2001	Ministry of Agriculture	Other (specify)		
Distributive trade	2001	INE (economic survey)	Other (specify)		

Agency-related indicators during reporting year				
Agency producing statistics on:	1. GDP	2. Population (Report if the agency is different from #1)	3. Household income/expenditure (Report if the agency is different from #1, 2)	4. Total
Agency Name	INE/Cuentas Nacionales	INE/Encuestas y Censos/Estadísticas e Indicadores	Same as #2	--
Government funding				
Current (Amount, currency)	29 million Bolivian peso / ()			29 million Bolivian peso
Capital (Amount, currency)				
Donor funding				
Funds (Amount, currency)	66 million Bolivian peso / ()			66 million Bolivian peso
TA expert working days	N/A			N/A
Donor agency (name)				
#1	BID, CAF, UNDP, UNFPA, Sweden, Canada,			
#2	Japan, Germany			
#3				
Statistical staff (regular staff, full-time equivalent)				
Number	350			350
Turnover (%)	17%			17%
ICT equipment				
Main frame Yes/No				
Internal network (Yes/No)				
Internet dissemination (Yes/No)	Yes			
PCs in use (number)	400			
Website (address)				
Source data used (number) (a monthly survey/administrative source counts as one source not 12; a quarterly counts as one source not 4)				
Household surveys/censuses	0		2	2
Other surveys/censuses	9		0	9
Administrative sources	0		0	0
Data releases (a monthly counts as 12 releases; a quarterly counts as 4 releases)				
Publications/Yearbooks	18 (pub.)/4 yearbooks)		7 (publications)	29
Other releases	250-300		0	250-300

Statistical Capacity Building (SCB) Indicators, INTERNATIONAL USE (end)

Country: Bolivia

Reporting year: 2001

Data related indicators			
	<i>1. GDP</i>	<i>2. Population</i>	<i>3. Household Income/Expenditure</i>
Agency name:	INE/SNA unit	INE/Demographic-social unit	
Rating scale: 4: Highly developed; 3: Developed; 2: Largely Undeveloped; 1: Undeveloped			
0. Prerequisites:			
0.1 Collection of information and preservation of confidentiality guaranteed by law and effective	3		3
0.2 Effective coordination of statistics	2		3
0.3 Staff level and expertise adequacy	3		3
0.4 Buildings and equipment adequacy	3		3
0.5 Planning, monitoring and evaluation measures implemented	2		2
0.6 Organizational focus on quality	2		3
1. Integrity:			
1.1 Independence of statistical operations	3		3
1.2 Culture of professional and ethical standards	3		3
2. Methodological soundness:			
2.1 International/regional standards implemented	2		4
3. Accuracy and reliability:			
3.1 Source data adequacy	2		3
3.2 Response monitoring	3		3
3.3 Validation of administrative data	2		2
3.4 Validation of intermediate and final outputs	3		2
4. Serviceability:			
4.1 User consultation	3		3
4.2 Timeliness of statistical outputs	3		3
4.3 Periodicity of statistical outputs	2		3
5. Accessibility:			
5.1 Effectiveness of dissemination	3		3
5.2 Updated metadata	3		3
Contact person: Mr. Gabriel Chavez, Head of SNA Unit; Institution: INE Bolivia; Telephone no: (591 2) 220 327; Fax no: (591 2) 224 866; Email address: macroeconomicas_1@ine.gov.bo			
Name of national statistical office (if any):			
Does the NSO have a strategic plan?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Date of Production

Statistical Capacity Building (SCB) Indicators, NATIONAL USE

Country: Mozambique		Population: 18.3 million		Reporting Year: 2001	
Agency-related indicators during reporting year					
Agency producing statistics on:	1. Education	2. Health	3. Other	4. Other	
Agency name:	Ministry of Education	Ministry of Health	--	--	
Government funding					
Current (Amount, currency)	N/A	N/A			
Capital (Amount, currency)					
Donor funding					
Funds (Amount, currency)	N/A	N/A			
TA expert working days					
Donor agency (name)					
#1					
#2	N/A	N/A			
#3					
Statistical staff (regular staff, full-time equivalent)					
Number	185 (National 6, provinces 33, districts 146)	3 permanent staff at national level, staff in 430 provincial hospitals, and 11 provinces			
Turnover (%)	0%	N/A			
ICT equipment					
Main frame Yes/No					
Internal network (Yes/No)					
Internet dissemination (Yes/No)	Yes	No			
PCs in use (number)	21 (central 6, provinces 15)	136			
Source data used (number) (a monthly survey/administrative source counts as one source not 12; a quarterly counts as one source not 4)					
Household surveys/censuses	0	0			
Other surveys/censuses	0	0			
Administrative sources	1	1			
Website (address)					
Data releases (a monthly counts as 12 releases; a quarterly counts as 4 releases)					
Publications/Yearbooks	3	4			
Other releases	0	0			

Statistical Capacity Building (SCB) Indicators, NATIONAL USE (end)

Country: Mozambique

Reporting Year: 2001

Data related indicators				
	<i>1. Education</i>	<i>2. Health</i>	<i>3. Other</i>	<i>4. Other</i>
Agency name:	Ministry of Education	Min. of Health		
Rating scale: 4: Highly developed; 3: Developed; 2: Largely Undeveloped; 1: Undeveloped				
0. Prerequisites:				
0.1 Collection of information and preservation of confidentiality guaranteed by law and effective	2	2		
0.2 Effective coordination of statistics	2	2		
0.3 Staff level and expertise adequacy	2	2		
0.4 Buildings and equipment adequacy	3	2		
0.5 Planning, monitoring and evaluation measures implemented	2	2		
0.6 Organizational focus on quality	2	2		
1. Integrity:				
1.1 Independence of statistical operations	2	2		
1.2 Culture of professional and ethical standards	2	2		
2. Methodological soundness:				
2.1 International/regional standards implemented	2	2		
3. Accuracy and reliability:				
3.1 Source data adequacy	2	2		
3.2 Response monitoring	2	2		
3.3 Validation of administrative data	2	2		
3.4 Validation of intermediate and final outputs	2	2		
4. Serviceability:				
4.1 User consultation	2	2		
4.2 Timeliness of statistical outputs	2	2		
4.3 Periodicity of statistical outputs	2	2		
5. Accessibility:				
5.1 Effectiveness of dissemination	2	2		
5.2 Updated metadata	2	2		
Contact person: Mr. Said Dade, Director Contas Nacionais; Institution: INE; Telephone no: (258-1) 490930				
E-mail address: dade@ine.gov.mz				

Statistical Capacity Building (SCB) Indicators, NATIONAL USE

Country: Bolivia		Population: 8.3 Million		Reporting Year: 2001	
Agency-related indicators during reporting year					
Agency producing statistics on:	1. Education	2. Health data	3. Other	4. Other	
Agency Name	Ministerio de Educacion	Ministerio de Salud y Asistencia Social		--	
Government funding					
Current (Amount, currency)	US\$ 65, 000	US\$100,000			
Capital (Amount, currency)					
Donor funding					
Funds (Amount, currency)	US\$330,000	US\$100,000			
TA expert working days	None	60			
Donor agency (name)					
#1	BID	BID			
#2					
#3					
Statistical staff (regular staff, full-time equivalent)					
Number	300	150			
Turnover (%)	N/A	40%			
ICT equipment Main frame					
Yes/No					
Internal network (Yes/No)					
Internet dissemination (Yes/No)	Yes	Yes (limited)			
PCs in use (number)	180	140			
Website (address)					
Data source used (number) (a monthly survey/administrative data counts as one source not 12; a quarterly counts as one source not 4)					
Household surveys/censuses	0	0			
Other surveys/censuses	0	0			
Administrative sources	1	1			
Data releases (a monthly counts as 12 releases; a quarterly counts as 4 releases)					
Publications/Yearbooks	2	12			
Other releases	0	0			

Statistical Capacity Building (SCB) Indicators, NATIONAL USE (end)

Country: Bolivia

Reporting Year: 2001

Data-related indicators				
	<i>1. Education</i>	<i>2. Health</i>	<i>3. Other</i>	<i>4. Other</i>
Agency name	Ministerio de Educacion	Ministerio de Salud y Asistencia Social		
Rating scale: 4: Highly developed; 3: Developed; 2: Largely Undeveloped; 1: Undeveloped				
0. Prerequisites:				
0.1 Collection of information and preservation of confidentiality guaranteed by law and effective	4	2		
0.2 Effective coordination of statistics	2	2		
0.3 Staff level and expertise adequacy	4	2		
0.4 Buildings and equipment adequacy	3	2		
0.5 Planning, monitoring and evaluation measures implemented	3	2		
0.6 Organizational focus on quality	3	2		
1. Integrity:				
1.1 Independence of statistical operations	4	2		
1.2 Culture of professional and ethical standards	4	2		
2. Methodological soundness:				
2.1 International/regional standards implemented	4	2		
3. Accuracy and reliability:				
3.1 Source data adequacy	2	2		
3.2 Response monitoring	3	2		
3.3 Validation of administrative data	4	2		
3.4 Validation of intermediate and final outputs	2	2		
4. Serviceability:				
4.1 User consultation	4	2		
4.2 Timeliness of statistical outputs	4	2		
4.3 Periodicity of statistical outputs	4	3		
5. Accessibility:				
5.1 Effectiveness of dissemination	3	2		
5.2 Updated metadata	3	2		
Contact person: Mr. Gabriel Chaves, Head of SNA Unit; Institution: INE Bolivia; Telephone no: (591 2) 2 220 327; Fax no: (591 2) 2 224 866;E-mail address: macroeconomicas_1@ine.gov.bo				

Annex 3: PARIS21 Task Team approach to the identification of the Statistical Capacity Building (SCB) indicators

1. Indicators on statistical capacity building had to be distilled from long and complex statistical processes that could widely differ across statistical outputs. Adding to the complexity was typically the large and diverse number of agencies involved in a country's statistical system, and the widely varying scope and quality of the data they produce.
2. Given this complexity, the work that led to the identification of indicators drew extensively from research on statistical best practices and literature. It also comprises an intensive consultation process where preliminary versions of indicators were presented to donor agencies and recipient countries, and their inputs actively sought. Intensive review of the indicators by the Task Team and others as well as testing against country circumstances, inclusive of formal testing in two countries, led to further refinement of the indicators.
3. This annex provides an overview of the approach adopted, and summarizes the processes that led to the identification of the SCB indicators. A first phase consisted in adopting a methodological framework to capture the full gamut of statistical activities, and in deriving indicators¹⁰ (First Phase, which went to May 2002). This framework along with indicators were presented at a seminar where 20 countries recipient of technical assistance in statistics provided their views, leading to a second draft of indicators¹¹ (Second Phase, which went until mid-June 2002). These second-draft indicators underwent further modifications as a result of testing, inclusive of extensive testing in two countries,¹² and intensive consultation.¹³ This led to the Statistical Capacity Building indicators and to developmental work for their administration (Third Phase, which ends with the presentation of the SCB indicators to the PARIS21 Consortium in October 2002).

A. The First Phase: The road to the selection of the indicators

The description of the statistical activities

6. The developmental work initially focused on the production process and the idea was to develop indicators that would apply to any statistical outputs of any data-producing agencies at any particular stage of development. Much care was taken to ensure a measure of the capacity to produce usable statistics. Indeed, a key element in statistics being usable lies in the quality of their production, and, as importantly, their use depends upon the confidence that

¹⁰ Mr. David Allen, consultant, was mostly associated with the identification of the First Phase qualitative indicators.

¹¹ Mr. Tim Holt, consultant, worked at the consolidation of the qualitative indicators, and the derivation of quantitative indicators (Second Phase), along with Mr. Allen.

¹² Mr. Jan van Tongeren, consultant, conducted the testing.

¹³ The Task Team members, Mrs. C. Carson, Mr. T. Holt, Mr. Z. Abbasi, Mr. R. Phillips, Mr. P. Turnbull, Mr. van Tongeren, Mr. Allen and Mr. J. Heimann as well as many participants to the IMF Seminar.

users have in the products. This is where the Data Quality Framework (DQAF), introduced by the IMF, was very valuable as a frame of reference to review systematically the essential aspects of statistical operations. The DQAF spans external environment (law, users, respondents, and resources), processes, inclusive of the managerial and technical support, and outputs. Its six-part structure also proved very useful in setting the broad dimensions from which the variables that serve as indicators were extracted.

7. The Task Team put together a description of statistical activities in *The Framework for Determining Statistical Capacity Building Indicators*.¹⁴ This provided a structured approach to statistical operations that spanned external environmental (law, users, respondents, and financing), structures, processes, and functions (outputs). The throughput statistical process along with the management and technical support were taken into account. Further, by focusing on the components that were common to all statistical systems, to all data-producing agencies, and to all statistical outputs, the *Framework* abstracted from countries' particularities. This ensured the comprehensiveness and the universality of the *Framework* from which the indicators were to be derived.

How to arrive at the identification of the indicators?

8. The next step consisted in extracting indicators. The indicators needed to be:

- relatively easy to apply,
- with measures kept as simple as possible,
- the cost of which not to exceed the value of the information generated, and with outcomes that would be consistent across various data-producing agencies in a country, among countries, as well as in time.

9. The six-part DQAF structure¹⁵ of the description proved extremely valuable in setting up the broad dimensions (e.g., relevancy and accuracy) from which to extract the variables most relevant to the statistical activities and on which the indicators were to be based.

10. The sequence to derive these indicators was as follows (please refer to Table 1). From *The Framework for Determining Statistical Capacity Building Indicators* was drawn a first list of over 100 finite statements that represented a mixture of statistical activities, and of performance indicators selected from relevant literature on performance of data-producing

¹⁴ By Lucie Laliberté, Makiko Harrison, Sarmad Khawaja, Jan van Tongeren, David Allen, Candida Andrade, and Beverley Carlson. The document is posted on the PARIS21 website.

¹⁵ Institutional prerequisite conditions, integrity, methodological soundness, accuracy and reliability, serviceability, and accessibility.

agencies. These were the subject of intensive consultation with multilateral donor agencies¹⁶ and led to a streamlined version of indicators from which 34 were selected on the basis that:

- they were understandable by statisticians, resource providers, and users;
- they covered a sufficiently broad range of statistical operations and, hence, applied to a variety of statistical circumstances; and
- they were amenable to some kind of measurement or comparison against best practices and, as such, could be ranked according to a four-rating assessment scale (Observed, Largely Observed, Largely Not Observed, Not Observed).

Table 1: The First Phase Development of Statistical Capacity Building Indicators

Dimensions	Elements	Potential candidates	First phase	
0. Prerequisites	0.1 Legal and institutional environment	28	32	6
	0.2 Resources	11	44	9
	0.3 Quality awareness	7	16	1
1. Integrity	1.1 Professionalism	6	9	1
	1.2 Transparency.	6	8	1
	1.3 Ethical standards	3	3	1
2. Methodological soundness	2.1 Concepts and definitions	2	3	1
	2.2 Scope	1	2	1
	2.3 Classification/sectorization	1	2	0
	2.4 Basis for recording	0	0	0
3. Accuracy and reliability	3.1 Source data	5	11	1
	3.2 Statistical techniques	5	6	0
	3.3 Assessment and validation of source data	3	3	2
	3.4 Assessment and validation of intermediate data and statistical outputs	3	5	1
	3.5 Revision studies	1	2	0
4. Serviceability	4.1 Relevance	7	11	2
	4.2 Timeliness and periodicity	5	7	1
	4.3 Consistency	3	3	0
	4.4 Revision policy and practice	3	4	1
5. Accessibility	5.1 Data accessibility	11	16	2
	5.2 Metadata accessibility	5	6	1
	5.3 Assistance to users	4	9	2

11. The indicators that were arrived at in this first phase were qualitative in nature and applicable to any data-producing agencies and any statistical products. They were a tool to be applied to a given output by a data-producing agency. The intent was that the results would determine the capacity of that agency to produce the output in question. To the extent that they were to be applied to outputs deemed to meet major user needs, they were viewed as demand-driven indicators

¹⁶ Afristat, Eurostat, OECD, UNECE, UNSD, and the World Bank.

B. The Second Phase: qualitative and quantitative indicators

12. A seminar¹⁷ was organized to seek the views of countries that receive statistical assistance on statistical capacity on the work to date by the Task Team. The strategy adopted to develop indicators was presented, the statistical activities upon which the indicators were to be drawn were described using the DQAF as basic methodology,¹⁸ and preliminary indicators submitted. The Seminar participants concurred with the methodology selected and recognized the usefulness of the proposed indicators as tools to help data producers improve the management of their statistical operations. The need also emerged for the indicators to satisfy some of the accountability requirements of the various stakeholders by providing results that could be comparable across countries.

“Finally I do think that the choice between assessing the process and assessing the reality is not to be taken lightly. It is much more direct to assess performance and recognize good performance than to assess whether there is a process to review performance. If the process is good but the real performance is poor and this is too common a theme of the indicators then it will discredit the results.”¹⁹ (Tim Holt)

13. In other words, there was a need to enhance the usefulness of the indicators over time and across datasets and across countries by reducing the margin for subjective interpretation, and to attach indicators to actual statistical outputs, or inputs or the environment. This was done by consolidating the existing qualitative indicators and by introducing quantitative indicators to supplement the process indicators.

14. An interactive process ensued where the criteria for the indicators, the variables selected, and their measures mutually influenced one another. In certain cases, the tendency was to focus on variables that had objective measures but that were not necessarily relevant (e.g., the response rate of surveys that could have been ill-designed in the first place). In other cases, the measurement of relevant variables simply came from their operational definitions (e.g., defining timeliness as so many periods after the reference period effectively provided the measure of timeliness). For other variables, the concept was very simple (e.g., effective statistical law), but its operational definition proved vague and ambiguous. Often, a direct measurement was not possible, and a measure could only be co produced by multiple variables. However, objective measures for joint variables were seldom available. This led to

¹⁷ PARIS21 Seminar on Statistical Capacity Building Indicators, hosted by the IMF in Washington on April 29-30, 2001, where some 20 developing countries participated.

¹⁸ The background paper presented at the Seminar was “The Framework for Determining Statistical Capacity Building Indicators.”

¹⁹ Internal memo sent to the Task Team chairperson.

measures whose subjectivity had to be minimized. This was dealt with using ordinal scale to which benchmarks descriptions were provided for each of the scale levels, from 4 to 1 representing a range of statistical activities from “highly developed” to “underdeveloped”.

15. To supplement this new version of calibrated qualitative indicators, a set of quantitative indicators that focus on resources, inputs, and outputs was devised. In terms of content, they quantify elements of resources, inputs, and statistical products. Resources include domestically and externally funded annual budget and staff, as well as selected equipment. Inputs are data sources, and they are measured in terms of surveys conducted and of administrative data used. Statistical products are assessed by the modes/channels of data releases (publications, press releases, website, etc.), and areas of statistics produced. Being largely quantitative, the indicators provide an idea of the size of the statistical system, the extent of external financing, the number of surveys and administrative data used as data sources, and the diversity of the statistical outputs. They also provide for snapshot comparisons of statistical capacity among countries.

At what level to apply the qualitative and quantitative indicators

16. The next challenge was to establish reference points in terms of statistics and data-producing agencies to which the indicators were to apply for international comparative purposes. At that stage, the option was taken to apply the quantitative indicators at the level of the whole statistical system, and the qualitative indicators at selected agencies level.

17. Applying the quantitative indicators at the level of the statistical system was challenging on least on two counts. First, *statistical system* is a notion difficult to define since it is not represented by a single organization. It is more of an intellectual construct, made up of the summation of organizations that vary among countries in number, structure, and the authority to which they report. Further, the division between data-producing agencies/units and ministries producing administrative data differs not only among countries, but would also vary in time as a result of institutional changes within a country. The composition of the system varying across countries, identification of its constituting agencies for indicator purposes was left to the country’s data-producing agency with the most responsibility for statistical coordination in the country in question.

18. Applying the quantitative indicators at the data-producing agency level also gave rise to two broad types of challenges, which largely stemmed from keeping the application cost of the indicators manageable: not all agencies could be assessed nor could all their products. The first type of challenge involved the selection of data-producing agencies and of the statistical outputs to be assessed. The choice was driven by agencies that produce statistical outputs that were deemed to be the most relevant. This was easier said than done. What criteria to use to select relevant outputs? Do they need to be relevant to major current issues? Are the current issues at the level of countries or that of the international community? Which products to choose and why? What results are expected and why? Are these products within the manageable limits of countries’ circumstances? These issues were dealt with by narrowing the choice to a limited number of broad statistical domains, and selecting a representative statistical output for each domain. Narrowing the domain and the statistical output provided effectively for a sample of representative agencies and outputs, and was in keeping with the low cost.

19. The second-phase indicators were tested in two countries. A version, which had been modified with some of the preliminary results from the testing, was presented at the PARIS21 Steering Committee Meeting in June 2002.

C. The Third Phase: the Statistical Capacity Building (SCB) Indicators

20. The third phase consisted in reviewing the results of the tests, in bringing further modifications to the indicators, in conducting a further round of consultation, and in exploring administrative procedures to promote the use of the SCB indicators.

21. The tests revealed, among other things, that the scope of the indicators was to be kept within manageable limits, and that some of the qualitative indicators needed more systematic discrimination among levels.

22. From the test findings as well as from additional comments received on the second version of the indicators, a new draft was drawn. The changes pertained largely in fixing the reference points in terms of statistics and data-producing agencies for international comparison purposes, as a common vision and understanding of the content of the indicators had been reached by then.

23. Exploratory work was also conducted to review administrative procedures that would be required for the indicators to be implemented. The Final Report of the Task Team to be presented to the PARIS21 Consortium in October 2002 was developed and widely distributed for comments.

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