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STATISTICS DEVELOPMENT IN ASIA AND THE PACIFIC

(Item 3 of the provisional agenda)

OVERVIEW OF STATISTICS DEVELOPMENT IN ASIA AND THE PACIFIC

Note by the secretariat

Corrigendum

The dates of the session *should read* as above.

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ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC

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First session
15-17 December 2008
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Note by the secretariat

SUMMARY

Although relevant and sound statistics produced by independent statistical institutions are indispensable for evidence-based policymaking, monitoring and evaluation, they have traditionally been neglected in formulating development policies. In recent years, multilateral efforts have been mobilized in order to raise the profile of statistics as a key link in the development process. An immediate result of these efforts has been an interest in assessing the status of statistics development in countries.

In the present report, the secretariat provides an account of the state of statistics development in Asia and the Pacific in two broad areas: (a) institutional development, and to a greater extent, (b) statistical capacity. The aim is to offer a snapshot of statistics development in the region without entering into an in-depth discussion of the causes and remedies of statistical deficiencies. Such issues are examined in the content of specific statistical areas addressed in other documents prepared for the first session of the Committee on Statistics.

The Committee may wish (a) to express its views on the key statistical achievements and challenges in the region in the light of the conclusions of the report; (b) to express its views on the region's priorities and factors driving success in statistics development; and (c) to advise the secretariat on whether such an assessment should be prepared by the secretariat on a regular basis and how the framework could be enhanced.

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Introduction

1. At a special session in 1994, the Statistical Commission endorsed the Fundamental Principles of Official Statistics,¹ which defined the role of official statistics and provided guidelines for national statistical systems. Official statistics have since gained prominence, spurred by the unprecedented process of rapid globalization, the expansion of the information society, the growing demand for transparency and evidence-based policymaking, and the pressing need to track progress towards time-bound national and global development goals, including the Millennium Development Goals and targets.
2. Promoting statistical capacity-building, especially in developing countries, has consequently become a top priority on the global agenda for statistics development. Established in November 1999, the Partnership in Statistics for Development in the Twenty-first Century (PARIS21)—a consortium of policymakers, analysts and statisticians from all countries of the world—acts as a catalyst for promoting a culture of evidence-based policymaking and monitoring. It focuses on national strategies for the development of statistics (NSDS) to produce nationally owned data for development indicators, including the Millennium Development Goals.²
3. The Marrakech Action Plan for Statistics³ proposed six actions to address national needs and international responsibilities. Priority was given to mainstreaming strategy planning for statistical systems for all low-income countries, preparing for the 2010 round of censuses, increasing financing for statistical capacity-building, setting up an international household survey network, improving the monitoring of the Millennium Development Goals, and increasing the accountability of the international statistical system. In the subsequent Paris Declaration on Aid Effectiveness⁴ and the outcome of the Third International Roundtable on Managing for Development Results,⁵ developing and developed countries together defined their joint responsibility for delivering and managing aid, and called for the scaling up of support for statistics development.
4. Ongoing national development processes and the global initiatives have led to visible advancements in many national statistical systems across Asia and the Pacific. Countries in the region, which vary widely in their levels of statistics development and specific needs for capacity-building, have received support from many bilateral and multilateral donors as well as from international, regional and subregional development partners.

¹ See *Official Records of the Economic and Social Council, 1994, Supplement No. 9 (E/1994/29)*, chap. V, para. 59. The Conference of European Statisticians developed these principles in the early 1990s and adopted them in 1992.

² See www.paris21.org.

³ The Marrakech Action Plan for Statistics was adopted at the Second International Roundtable on Managing for Development Results, Marrakech, Morocco, 4-5 February 2004 (available at <http://unstats.un.org/unsd/statcom/doc04/marrakech.pdf>).

⁴ Paris Declaration on Aid Effectiveness: Ownership, Harmonization, Alignment, Results and Mutual Accountability, adopted at the High-level Forum on the question of “Joint Progress towards Enhanced Aid Effectiveness: Harmonization, Alignment, Results”, Paris, 28 February to 2 March 2005 (see <http://www1.worldbank.org/harmonization/PARIS/FINAL/PARISDECLARATION.pdf>).

⁵ Summary of Proceedings for the Third International Roundtable on Managing for Development Results, held in Hanoi from 5 to 8 February 2007.

5. The present report was prepared by the secretariat as a review of statistical development in the Asian and Pacific region, to be presented at the fortieth session of the United Nations Statistical Commission.⁶ It also serves as the basis for discussion on the regional priorities for statistical capacity-building at the inaugural meeting of the newly re-established Committee on Statistics. Drawing on existing studies and assessments, the secretariat reviews the key achievements in the region and identifies remaining challenges that require regional attention and actions.

6. In the present report, statistics development is defined as the process of statistical capacity-building, which strengthens the main pillars of a statistical system. These pillars are the conditions required for the development and maintenance of an effective statistical system, as summarized below:⁷

(a) Prerequisites: legal and institutional environment, resources, and quality management;

(b) Integrity: professionalism, ethical standards and transparency in the collection, compilation and dissemination of statistics;

(c) Methodological soundness: application of international standards, guidelines, and agreed practices fostering international comparability;

(d) Accuracy and reliability: proper source of data, statistical techniques, supporting assessments and validation;

(e) Serviceability: relevance, timeliness, adequate periodicity and consistency of data;

(f) Accessibility: clarity and availability of data and metadata, and adequacy of assistance to users.

7. The observed characteristics of a statistical system reflect its actual institutional and technical capacities. It is recognized that effective statistical capacity-building should lead to the development of both types of capacity within a statistical system.

8. In the present report, the secretariat describes the current state of statistics development in two broad areas: (a) institutional development, and, to a greater extent, (b) statistical capacity. Institutional development is assessed in terms of the NSDS process in Asia and the Pacific. The availability and quality of statistical outputs are used as indicators of statistical capacity in the region. The World Bank's statistical capacity indicator (SCI)⁸ is used to provide an overall assessment of this capacity; reference is made to the indicator's components in order to assess the status of economic and sociodemographic statistics.

⁶ See *Official Records of the Economic and Social Council, 2008, Supplement No. 4 (E/2008/24)*.

⁷ This summary is based on the Data Quality Assessment Framework of the International Monetary Fund, available at <http://dsbb.imf.org/Applications/web/dqrs/dqrsdqaf/>.

⁸ For more information on the statistical capacity indicator and country results, see <http://go.worldbank.org/IE09G6CX20>.

9. The present report is not a comprehensive review; rather, it highlights certain statistics development results at the regional and subregional levels and provides country experiences in specific areas based on available international data. Hence, the results reflect the statistical capacity of countries only to the extent that the relevant data is made available through international agencies. In the report, the secretariat focuses on less-developed statistics systems in the region and contrasts them, whenever possible, with more-developed systems.

I. INSTITUTIONAL DEVELOPMENT

10. The powers and obligations of a statistical agency are usually delineated in a statistical law or act. In the Asian and Pacific region, 76 per cent of ESCAP member countries⁹ have legislation for statistics. North and Central Asia is the only subregion in which all countries have a statistical law. In most of the other subregions, just over 80 per cent of countries have such legislation, with the exception of the Pacific. There, few countries have a statistical law; information on such legislation is available for only 57 per cent of the Pacific countries.¹⁰ More than half of the North and Central Asian countries passed these laws after 1994, while more than 60 per cent of the countries in the ESCAP region had enacted statistical laws prior to the endorsement of the Fundamental Principles of Official Statistics. Only four ESCAP countries have passed revisions or additional laws since 1994.

11. Although these laws vary in content and in the level of independence given to national statistical agencies, all contain some sort of delineation of the authority and duties of national statistical agencies. The real challenge seems to be in establishing effective coordination of national statistical systems, a task which can be made more difficult due to shortcomings in a country's law. In the present section, this coordination aspect of institutional development is discussed in the context of the NSDS process in Asia and the Pacific.

12. NSDS, which is one of the main elements of the Marrakech Action Plan for Statistics, is designed to enhance statistical capacity and coordination across the entire statistical system. The preparation of a national strategy is ideally a comprehensive exercise and entails a detailed assessment of the current status of statistics development in the country, development of a vision and priorities, and a plan of implementation that addresses such aspects as funding, monitoring and evaluation. The process of preparing an NSDS and its implementation facilitate coordination within national statistical systems.

13. Table 1 gives an account of NSDS status for 36 countries in Asia and the Pacific. To facilitate the analysis, the seven PARIS21 categories of status (completed, implementation under way, preparation under way, design under way, no strategy, strategy expired and process not yet initiated)

⁹ In the present report, "the ESCAP region" refers to members in the Asia-Pacific region, but does not include the non-regional members.

¹⁰ See the Country Statistical Information Database of the World Bank (<http://go.worldbank.org/0EZUI59C70>) and the United Nations Statistics Division website (<http://unstats.un.org/unsd/dnss/SearchResults.aspx>).

are combined into three groups: countries which currently have an NSDS, countries which are in the process of preparing such a strategy and countries which have no such strategy at all.

14. As shown in table 1, nearly 40 per cent of countries in the ESCAP region do not have an NSDS. The Pacific subregion has the highest percentage of countries without a strategy: 67 per cent. For South and South-West Asia, this proportion is 60 per cent. Nearly 70 per cent of the countries in North and Central Asia (that provide information on their national strategy) either have or are in the process of preparing an NSDS; this percentage rises to 90 per cent in South-East Asia; in East and North-East Asia, both countries for which there is data have a national strategy.

15. Low-income countries tend to have completed a national strategy or have none at all; very few are at the design stage. A higher proportion of low-income countries currently has an NSDS, in comparison to middle-income countries. This is not surprising given that the Marrakech Action Plan for Statistics and PARIS21 have mobilized efforts specifically for low-income countries. When factoring in countries that are in the process of preparing a national strategy, the proportion of middle-income countries engaged in a national strategy surpasses that of low-income countries.

16. Although it is a fundamental step in institutional development, having a national strategy does not automatically lead to increased statistical capacity and sustained coordination. For an NSDS to be successful, it must include all statistical agencies and be aligned with other national development plans. For instance, the fact that the Statistical Master Plan for Cambodia does not adequately address administrative data sources or the role of the line ministries in improving the statistical system was highlighted as a shortcoming of the strategy in a recent evaluation.¹¹ Another drawback in the case of Cambodia is that the National Strategic Development Plan and the Statistical Master Plan are not synchronized and overlap in some parts.

17. Another important factor for the effective implementation of an NSDS is resources. Statistics is still not considered a priority area when it comes to budget allocation, and donor funding is often insufficient or ineffective. The Lao People's Democratic Republic has a national strategy, but lacks sufficient financial and human resources.¹² In acknowledgement of these shortcomings, the five-year strategy is aimed at identifying the fundamental and urgent statistical requirements and ways to use and enhance capacity to produce statistics of an acceptable quality. Highly donor dependent, the country's National Statistics Center may have to focus on a minimum acceptable statistical system instead of an ideal one if it is unable to attract further funding. This example demonstrates the importance of building institutional and organizational capacity simultaneously.

¹¹ Ian MacAuslan and Christine Spanneut, "Evaluation of the implementation of the Paris Declaration: a thematic study of support to statistical capacity-building—Cambodia country case study", unpublished report, October 2008.

¹² Lao People's Democratic Republic, *Strategies and Measures for the Official Statistical System Development of the Lao People's Democratic Republic 2006-2010* (Vientiane, National Statistics Centre, 2005).

Table 1. Status of national strategies for the development of statistics, Asia and the Pacific (2008)

<i>Groupings</i>	<i>Total number of countries with data^a</i>	<i>Completed/implementation under way</i>		<i>Preparation under way/design under way/strategy expired</i>		<i>No strategy/process not initiated</i>	
		<i>Number</i>	<i>Percentage of group</i>	<i>Number</i>	<i>Percentage of group</i>	<i>Number</i>	<i>Percentage of group</i>
ESCAP region	36	13	36	9	25	14	39
East and North-East Asia	2	2	100	—	—	—	—
South-East Asia	9	4	44	4	44	1	11
South and South-West Asia	10	2	20	2	20	6	60
North and Central Asia	9	4	44	2	22	3	33
Pacific	6	1	17	1	17	4	67
Low-income	13	6	46	1	8	6	46
Middle-income	23	7	30	8	35	8	35

Sources: Based on data from PARIS21, “NSDS Status in IDA Countries: Progress report as of 30 May 2008”; World Bank, “Trust Fund for Statistical Capacity Building progress report, 1 April 2007-30 April 2008” (Washington D.C., World Bank, 2008); and the Country Statistical Information Database of the World Bank (available at <http://go.worldbank.org/0EZUI59C70>).

Note: An em-dash (—) indicates that the amount is nil or negligible.

^a Global initiatives on national strategies for the development of statistics do not target high-income countries.

18. The most visible indicators of statistical capacity in a country are undoubtedly the statistical outputs. In the remainder of the present report, the secretariat focuses on the availability and the quality of selected statistical outputs in Asia and the Pacific in order to provide some insight into statistics development in the region. The next section contains a description of the World Bank's SCI and its framework, which determines the scope of the present report to a large extent.

II. THE STATISTICAL CAPACITY INDICATOR AS AN ASSESSMENT FRAMEWORK

19. SCI is different from more complex evaluation frameworks, such as those developed by PARIS21 and, more recently, by Oxford Policy Management,¹³ as it aims to offer both comprehensive and a practical measures of statistical capacity. It is a composite indicator that summarizes the following three dimensions of a national statistical system:

(a) *Statistical practice.* Indicators in this dimension measure the availability of statistics and the ability to adhere to the internationally recommended standards and methods. Focusing largely on economic and financial statistics, indicators include national accounts base year and subscription to the Special Data Dissemination Standard (SDDS).

(b) *Data collection.* This component is composed of the periodicity of agricultural and population censuses as well as poverty and health surveys, and the completeness of vital registration coverage.

(c) *Indicator availability.* Indicators in this dimension measure the availability and frequency of key socio-economic indicators, namely, selected Millennium Development Goal indicators and GDP growth.

20. While SCI encompasses diverse sectors of statistics, most of its criteria, especially in regard to data collection and indicator availability, are in the sociodemographic domain, and SCI coverage is limited to countries that borrow from the International Development Association or the International Bank for Reconstruction and Development.¹⁴

21. The overall indicator, however, does not incorporate the elements of institutional capacity. Rather, it can be considered as a proxy for the capacity to produce statistics and as a partial indicator of the capacity to disseminate statistics. Furthermore, SCI does not distinguish between financial and technical capacity. Because insufficient funding is often an important factor hindering data collection activities as well as more analytical tasks, the use of SCI can lead to overestimates of the capacity of a country that depends heavily on external funding for producing its statistical outputs, and to underestimates of the capacity of those which cannot deliver due to current financial shortcomings.

¹³ Mention of firm names does not imply the endorsement of the United Nations.

¹⁴ For a list of these countries, see <http://go.worldbank.org/83SUQPXD20>.

22. The SCI also leaves out some important areas such as labour, business and environment statistics. For the areas it covers, the SCI informs us on the quality of the outputs only in regard to methodology, availability and periodicity of the data. The quality of sampling, survey tools and operations, and data processing and analysis does not figure in the evaluation of statistical capacity through this indicator. In this sense, it is more appropriate to refer to SCI as a statistical performance indicator.¹⁵

23. Moreover, the sources of most of the underlying data are international, which means that levels of reporting can skew the results. For instance, in the case of indicator availability, even if the indicator is available at the national level, if it is not reported to the international custodian agency, the country is given no points. Another problem is that the international agencies often use statistical techniques to complete time series data, in which case the availability of an indicator may not necessarily represent the country's capacity to produce or disseminate it.

24. Another limitation of SCI is the possible causal relationships between its components. For instance, the variables of data collection are in fact prerequisites for or intermediate outputs of the variables of the statistical practice and indicator availability components. This causality, coupled with the equal weighting of the three related components, may result in double counting in the indicator.

25. Despite its limitations as an index, SCI provides an operational framework for assessing the capacity to produce statistics; to a lesser extent it also assesses the capacity of dissemination. Although the SCI approach to statistical capacity is strictly output-oriented, the framework is practicable, as there is sufficient data to support each element for many countries. The present report hence adopts the SCI framework to present an overall assessment of statistical capacity, and supplements disaggregated SCI results with other data sources to provide a more detailed assessment of economic and sociodemographic statistics outputs.

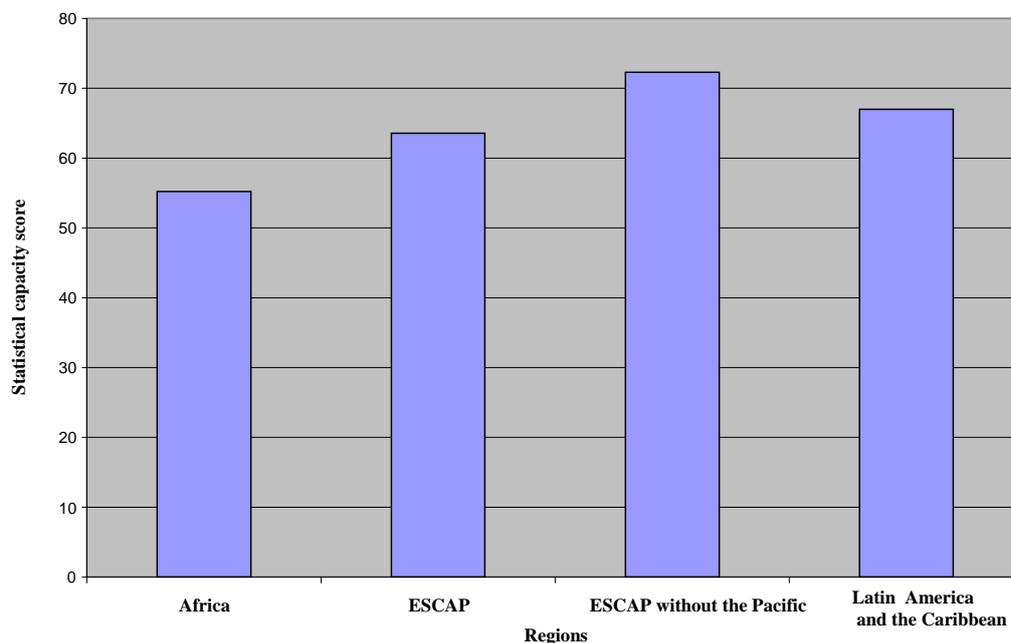
III. ASSESSING STATISTICAL CAPACITY IN ASIA AND THE PACIFIC

A. Statistical capacity indicator results for Asia and the Pacific

26. Although the majority of its indicators fall under the sociodemographic domain, SCI is intended to provide a general assessment of statistical capacity in countries all across the world. As shown in figure 1, which gives the average statistical capacity scores of the developing regions, ESCAP countries are slightly behind Latin America and the Caribbean, with an average score of nearly 64 out of 100. Africa has the lowest score (about 55). When the ESCAP region is considered without Pacific countries, however, it comes out ahead of Latin America and the Caribbean, with a score of 72.

¹⁵ See P. Wingfield Digby, *Towards Reforming National Statistical Agencies and Systems: A Survey of Best-Practice Countries with Effective National Statistical Systems in Africa* (Harare, The African Capacity Building Foundation, 2007).

Figure 1. Statistical capacity indicator, developing regions (2007)



Source: Based on data from the Country Statistical Information Database of the World Bank (available at <http://go.worldbank.org/0EZUI59C70>).

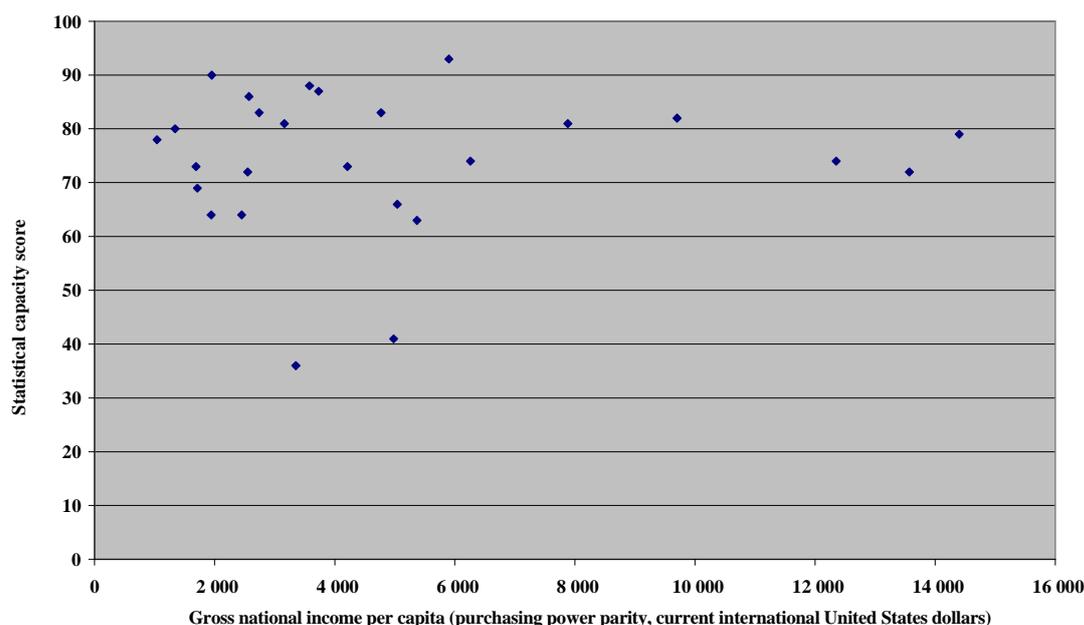
27. The lowest score given to an ESCAP member country in 2007 was 26. For the purposes of the present document, the scores of countries have been divided into three intervals: 26-51 (low capacity), 52-75 (medium capacity) and 76-100 (high capacity). No country achieved the full score.

28. Most Pacific countries fall in the first interval. Indeed, 7 of the 11 countries which scored between 26 and 50 are from this subregion. Fiji, Samoa and Tonga are the only Pacific countries which have medium statistical capacity. Most of the remaining subregions demonstrate a wider range of country capacity levels. Two countries are covered in East and North-East Asia, one with medium and one with high capacity. Five out of nine South-East Asian countries for which there is data have medium capacity. All North and Central Asian countries are covered; the majority scored between 76 and 100. In the case of South and South-West Asia, five out of nine countries covered have either low or medium capacity.

29. Based on the interval analysis, income levels seem to have only a weak direct relationship with SCI performance, as low- and middle-income countries are represented in all three intervals (see Figure 2). In the high-capacity interval, a dominant income group does not emerge. Indeed, the level of gross national income (GNI) per capita (purchasing power parity, international United States dollars) and the SCI score of the countries are not strongly correlated.

30. According to SCI data for 2007, Bangladesh and the Russian Federation have nearly the same score, at about 80, while the GNI per capita of the latter is about 11 times that of the former. In reality, however, these two countries have quite different levels of capacity. The overall score of Bangladesh is inflated by its high score on indicator availability (90). Hence, SCI is useful for making broad comparisons among regions, but may not be authoritative for cross-country assessments.

Figure 2. The statistical capacity indicator and gross national income for countries in the ESCAP region, without the Pacific (2007)

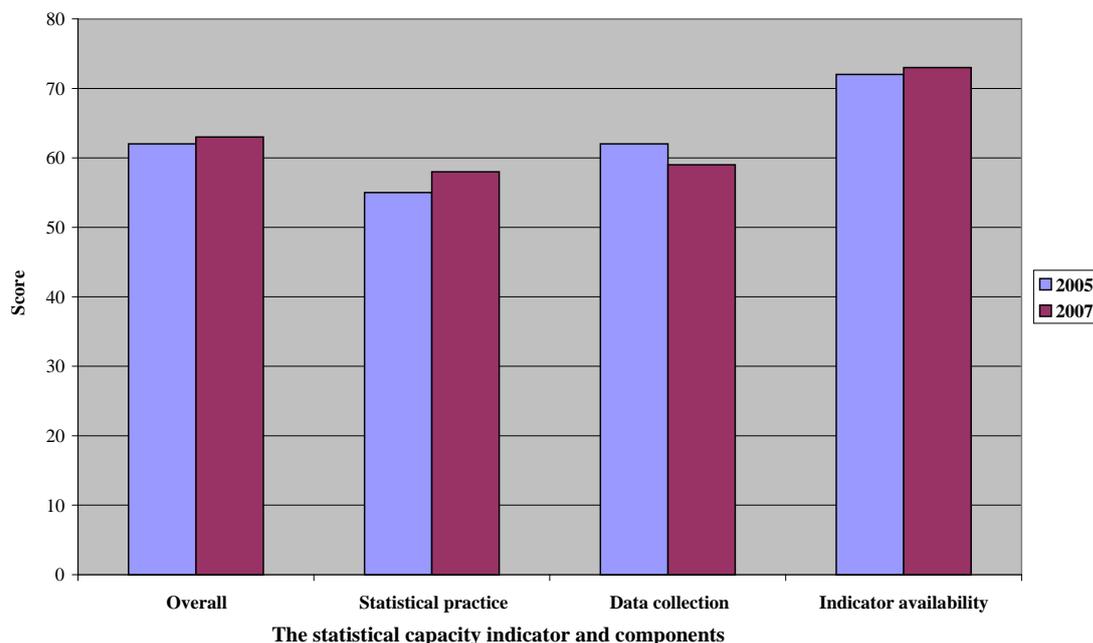


Sources: Based on data from the Country Statistical Information Database of the World Bank (available at <http://go.worldbank.org/0EZUI59C70>); and World Bank, *World Development Indicators 2007* (Washington D.C., World Bank, 2007) (also available, by subscription only, at <http://ddp-ext.worldbank.org/ext/DDPQQ/member.do?method=getMembers&userid=1&queryId=6>).

Note: Figures for Afghanistan, Myanmar and Turkmenistan were not available, hence these countries were excluded from this analysis.

31. Figure 3 gives an overview of how regional performance in relation to SCI and its components has progressed over time in Asia and the Pacific. Given the short period of time considered, it is not unexpected that little change has occurred. Nevertheless, all scores, with the exception of those for data collection, have increased. Statistical practice, an indicator that is less biased towards statistical products and covers elements of quality, showed the highest increase. Fluctuation in data collection activities is expected, especially in cases where countries depend on donor funding in order to conduct their activities. One interesting observation is that indicator availability scores are consistently higher than data collection and statistical practice components, highlighting that regional performance has been better in sociodemographic statistics than it has been in economic statistics.

Figure 3. The statistical capacity indicator and its components, Asia and the Pacific (2005-2007)



Source: Based on data from the Country Statistical Information Database of the World Bank (available at <http://go.worldbank.org/0EZUI59C70>).

32. In order to identify specific statistical strengths and weaknesses in the region, it is necessary to study closely individual elements of statistical capacity. In the next section, both the available results for selected indicators of SCI and supplementary data sources are examined, in order to give a more detailed assessment of statistical capacity in the region.

B. Capacity to produce statistics in Asia and the Pacific

33. In this section, the analysis is expanded to elements beyond the scope of the SCI framework, namely, the availability and quality of statistical outputs in economic and sociodemographic statistics. In line with the statistical practice component, subscription to the SDDS is discussed, but in this case participation in the General Data Dissemination System (GDDS) is also considered. Another area related to economic statistics, namely, the status of national accounts statistics, is also analysed beyond the SCI coverage. Subsequently, in an assessment loosely based on the SCI data collection and indicator availability components, data sources and the capacity of countries to produce sociodemographic statistics for selected Millennium Development Goals are assessed.

1. Economic Statistics

(a) GDDS and SDDS subscription in Asia and the Pacific

34. In assessing the status of statistical capacity to produce economic statistics, subscription to GDDS and SDDS can be considered as indicators. The GDDS and SDDS, both initiatives of the

International Monetary Fund (IMF), together compose the largest metadata repository worldwide. Both standards are based on four dimensions of data dissemination: (a) data characteristics (coverage, periodicity, timeliness); (b) access by the public; (c) integrity of the disseminated data; and (d) quality of the disseminated data.

35. The main differences between the two are their focus and scope. GDDS is designed as a tool to improve data quality, whereas SDDS assumes the existence of sufficiently high standards of data and focuses on dissemination of data, particularly in terms of full documentation and transparency. Two important prescriptions of SDDS are the advance release calendar, which functions as a dissemination schedule, and the national summary data page, which links metadata with indicator values. In terms of sectors, GDDS covers sociodemographic statistics in addition to the economic and financial sectors. Any IMF member country can subscribe to GDDS, whereas SDDS subscription is limited to countries which have an interest in international capital markets. Finally, SDDS is more prescriptive, as the subscribing countries must comply with specific standards in order to become members, and there is a stronger emphasis on periodicity and timeliness. In the case of GDDS, the observation of its standards is seen as a dynamic process with flexible deadlines.¹⁶

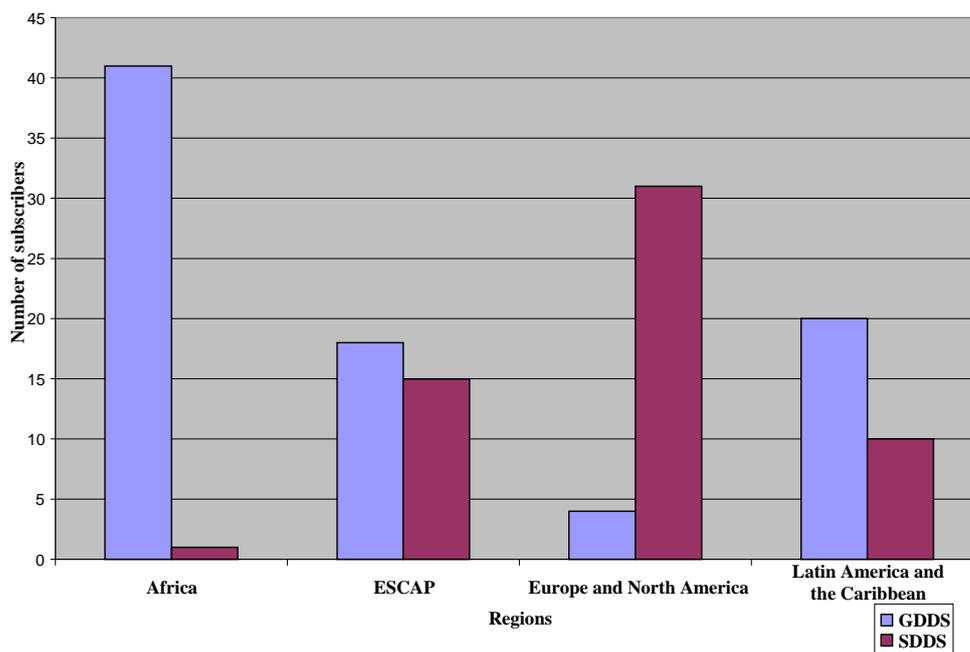
36. Despite the common principles, the link between GDDS and SDDS is not firm. Indeed, the enhancement of this link was the prime recommendation of a recent evaluation of GDDS.¹⁷ One suggestion is to include all SDDS data categories in GDDS and emphasize the dissemination component of the latter in order to create a virtuous cycle of demand for and supply of sound data. In the evaluation, the IMF also recommended the adoption of components such as national summary data pages and advanced release calendars. Subscription to SDDS could be integrated as an end goal for GDDS members.

37. Figure 4 depicts how subscription to GDDS and SDDS compares among world regions. SDDS subscription exceeds GDDS subscription only in Europe and North America. Among the regions that comprise the developing world, the ESCAP region has the highest number of countries subscribing to SDDS. In Africa, only South Africa participates in SDDS.

¹⁶ International Monetary Fund, "Differences between the SDDS and the GDDS", accessed from <http://dsbb.imf.org/Applications/web/gdds/gddsdiffbw/> September 2008.

¹⁷ International Monetary Fund, "Assessing the General Data Dissemination System (GDDS)—what has been accomplished after ten years, and where do we go from here?", paper for discussion (IMF, 2008), available at www.imf.org/external/pubs/ft/sdds/gdds-assess-08.pdf.

Figure 4. Subscription to the General Data Dissemination System and the Special Data Dissemination Standard, developing regions (2008)



Source: Based on data from the Country Statistical Information Database of the World Bank (available at <http://go.worldbank.org/0EZUI59C70>).

38. Table 2 presents a breakdown of GDDS and SDDS subscription of Asian and Pacific countries which are also IMF members. Out of 48 countries that are members of both ESCAP and the IMF, 69 per cent subscribe to either GDDS or SDDS. The subscription rate is highest for East and North-East Asia, at 100 per cent, followed by North and Central Asia at 78 per cent. The highest number of countries subscribing to SDDS, however, is in South-East Asia. The Pacific subregion has the lowest subscription rate to either of the systems, at 42 per cent.

39. Subscription rates are the lowest (62 per cent) for low-income countries. High-income countries have the highest combined subscription rate (75 per cent), with the overwhelming majority participating in SDDS. For middle-income countries, the rates of subscription to GDDS and SDDS are equal, while more than half of the low-income countries participate in GDDS. Thus, the higher the income level, the more likely it is that a country's subscription will be to SDDS, rather than GDDS.

40. Out of 15 SDDS subscriptions in the ESCAP region, 11 were made between 1999 and 2001, soon after the launch of SDDS. In 2003 and 2004, Armenia, Kazakhstan and Kyrgyzstan "graduated" from GDDS into SDDS. In 2005, the Russian Federation became the latest ESCAP member country to subscribe to the system. Therefore, few ESCAP countries have made enough progress over the past nine years to qualify for SDDS. On the other hand, new subscription to GDDS, which is much less demanding, have been added continuously from 2000 onwards. Fifteen countries that are members of both ESCAP and the IMF do not yet subscribe to either system.

Table 2. Subscription to the General Data Dissemination System and the Special Data Dissemination Standard, Asia and the Pacific

<i>Groupings</i>	<i>Number of IMF members</i>	<i>Number of GDDS subscriptions</i>	<i>Number of SDDS subscriptions</i>	<i>Combined subscriptions (percentage)</i>
ESCAP region	48	18	15	69
East and North-East Asia	6	3	3	100
South-East Asia	11	3	5	73
South and South-West Asia	10	5	2	70
North and Central Asia	9	3	4	78
Pacific	12	4	1	42
Low-income	13	7	1	62
Middle-income	27	9	9	67
High-income	8	1	5	75

Sources: The General Data Dissemination System Site, available at <http://dsbb.imf.org/Applications/web/gdds/gddscountrylist/>, and the Special Data Dissemination Standard Site, available at <http://dsbb.imf.org/Applications/web/sddscountrylist/>.

Note: For the purpose of this analysis, Hong Kong, China and Macao, China were counted as individual International Monetary Fund members.

Abbreviations: GDDS General Data Dissemination System
IMF International Monetary Fund
SDDS Special Data Dissemination Standard

(b) Content and quality of national accounts

41. The United Nations Statistics Division has a framework for monitoring conceptual compliance and scope of national accounts in countries. This monitoring framework assesses compliance with six milestones as well as the three data sets (minimum requirement, recommended and desirable) for the implementation of the System of National Accounts, 1993. Minimum requirements 1.1 to 2.3 cover value-added components, GDP and employment. Minimum requirement 1.3/4.1 refers to accounts for the total economy, and 4.2 indicates rest of the world accounts (until net lending). For a country to fulfil milestone 1, it must compile the basic indicators of gross domestic product; for phase 2, GNI and other primary indicators are required (see E/CN.3/2004/10).

42. MRDS combines the accounts recommended in milestone 1 and 2 and adds requirement, or table, 2.3, which comprises value-added components and employment by industry. Although MRDS and milestones 1 and 2 assess largely the same content, it is easier for a country to satisfy the milestones. For instance, a country can reach milestone 1 if value-added and GDP by industry are available in current or constant prices, whereas to meet the MRDS the country would have to produce this table in both current and constant prices. The data for the framework is collected through the national accounts questionnaire administered by the United Nations Statistics Division.

43. Only 27 per cent of ESCAP member countries which reported through the national accounts questionnaire at least once between 1999 and 2007 can provide all the tables required for MRDS. The percentage goes up to 49 for countries producing at least six tables. East and North-East Asia has the highest proportion of members (83 per cent) that can provide at least six MRDS, followed by South and South-West Asia (70 per cent). The Pacific lags far behind, with only 13 per cent of countries producing at least six tables and 6 per cent able to provide seven or more tables. Of the high-income countries, 40 per cent produce all the tables for the MRDS; 30 per cent of middle-income countries and 17 per cent of low-income countries can provide these tables.

44. As for the milestone levels, 75 per cent of ESCAP members can estimate the indicators on final expenditures on GDP and GDP by industry. Only 63 per cent of the countries satisfy the requirements of milestone 2 on the production of indicators on the external account of primary incomes and current transfers and on the capital and financial accounts for the rest of the world. All East and North-East Asian countries satisfy the requirements of both milestone phases. South and South-West Asian countries follow closely, with 100 per cent and 90 per cent meeting the benchmarks for phases 1 and 2, respectively. Only 31 per cent of the Pacific countries produce the basic GDP indicators; 25 per cent can provide the GNI and other primary indicators.

45. Low-income countries are behind middle- and high-income countries in terms of milestone compliance. While 78 per cent of middle-income countries and 80 per cent of high-income countries produce phase 1 indicators, only 67 per cent of low-income countries can provide them. Similarly, only half of low-income countries comply with milestone 2, while 70 per cent of middle- and low-income countries can produce the required indicators.

46. The above discussion provides information on the content of the national accounts statistics produced in the region, but does not address quality. In regard to that aspect, the Data Quality Assessment Framework for National Accounts published in the Reports on the Observances of Standards and Codes (ROSCs) that focus on data dissemination, are informative.

47. Launched in 1999, ROSC is a joint initiative of the World Bank and the IMF designed, much like GDDS and SDDS, in response to the emerging market crises of the mid-1990s. The reports are prepared upon invitation from the countries, with an aim to survey and report on compliance with internationally accepted standards and codes in 12 areas closely related to economic stability and private and financial sector development. The areas are grouped under policy transparency, financial sector regulation and supervision, and market integrity. Data dissemination is one of the topics under policy transparency.

48. The Data Quality Assessment Framework, based on the FPOS and drawing largely on the experiences with GDDS and SDDS, was developed by the IMF in 2001. The framework takes best practices and internationally accepted standards and methodologies as the benchmark against which

country practices in statistical governance, processes and products are assessed. For each practice, the country status is given one of five rankings: practice observed, largely observed, largely not observed, not observed or not applicable. The Data Quality Assessment Framework assesses countries on the legal and institutional environment (prerequisites for data quality) and five dimensions of data quality: assurances of integrity, methodological soundness, accuracy and reliability, serviceability and accessibility. In addition to the generic Data Quality Assessment Framework, six subject-specific frameworks were designed for a range of data sets, including one on national accounts.¹⁸

49. Data dissemination ROSCs exist for only 17 countries in the region, hence a regional or subregional analysis is not feasible. It is nevertheless important to note that six of these countries are in North and Central Asia and five are in South and South-West Asia. All ESCAP countries with ROSCs satisfy milestones phases 1 and 2, and 15 of them produce six or more MRDS tables.

50. Table 3 summarizes the assessment of national accounts given in the most recent ROSCs for these 17 ESCAP countries. A significant number of countries seem to have had difficulties with the following elements:

(a) *Statistical techniques.* In nine countries, the standards for statistical techniques are largely not observed, which means that statistical techniques employed in these countries do not conform to a great extent to sound statistical procedures. Statistical techniques used in (a) data compilation and (b) data adjustments, data transformations and statistical analyses are used as indicators.

(b) *Source data.* This is another weak element under the accuracy and reliability dimension. Source data in six countries largely do not provide an adequate basis for compiling statistics. Three indicators are used to assess this element: (a) source data are collected from comprehensive data collection programs that take into account country-specific conditions; (b) source data reasonably approximate the definitions, scope, classifications, valuation and time of recording required and (c) source data are timely.

(c) *Resources.* Resources are deemed largely incommensurate with the needs of statistical programmes in six countries. Resources refer to staff, facilities, computing resources and financing. The implementation of measures to ensure efficient use of resources is also considered.

(d) *Scope.* The scope of national accounts in five countries is largely not in accord with internationally accepted standards, guidelines, or good practices.

51. ROSC assessments demonstrate the importance of conducting in-depth and comparable evaluations at the country level. Indeed, thorough regional assessments can only be built on detailed evaluations of statistical activities and outputs in national statistical systems.

¹⁸ See <http://dsbb.inf.org/applications/web/dgrs/dgrsdgaf/>.

Table 3. Results of Reports on the Observance of Standards and Codes assessments for national accounts in Asia and the Pacific (2002-2008)

	<i>Practice observed or largely observed (Number of countries)</i>	<i>Practice largely not observed or not observed (Number of countries)</i>
0. Prerequisites of quality		
0.1 Legal and institutional environment	14	3
0.2 Resources	11	6
0.3 Relevance	16	0
0.4 Quality awareness/Other quality management	17	0
1. Assurances of integrity		
1.1 Professionalism	17	0
1.2 Transparency	16	1
1.3 Ethical standards	17	0
2. Methodological soundness		
2.1 Concepts and definitions	17	0
2.2 Scope	12	5
2.3 Classification, sectorization	14	3
2.4 Basis for recording	15	2
3. Accuracy and reliability		
3.1 Source data	11	6
3.2 Assessment of source data	14	1
3.3 Statistical techniques	8	9
3.4 Assessment and validation of intermediate data and statistical outputs	15	2
3.5 Revision studies	13	3
4. Serviceability		
4.1 Periodicity and timeliness	17	0
4.2 Consistency	16	1
4.3 Revision policy and practice	16	1
5. Accessibility		
5.1 Data accessibility	14	3
5.2 Metadata accessibility	13	4
5.3 Assistance to users	17	0

Sources: International Monetary Fund, Reports on the Observance of Standards and Codes for the period 2002-2008, available from www.imf.org/external/np/rosc/rosc.asp.

2. Sociodemographic statistics

52. Many important sociodemographic statistics are covered within the monitoring framework for the Millennium Development Goals. In the present report, analysis is limited to selected indicators used for monitoring the progress towards poverty reduction, universal education and improvement of health. The availability of these indicators is assessed on the basis of the existence of at least two data points produced directly by the country.

53. In the Millennium Development Goals database, each value for the indicators is categorized based on how it was produced.¹⁹ In order to shed light on the statistical capacity of individual countries, the focus in the present section is on country data (data produced and disseminated directly by countries) and country adjusted data (data produced by countries but adjusted by international agencies for comparability prior to dissemination). The availability of country data is an indicator of the statistical capacity of the country to produce data of internationally acceptable quality, as no revision is required before its dissemination. In order to be able to measure the progress of a country towards achieving a Millennium Development Goal, at least two data points are needed per indicator. Countries which have produced values for two or more years on the indicators are included in tables 4 to 7.

(a) Data sources for sociodemographic indicators

54. Before assessing the availability of specific sociodemographic indicators, it is useful to briefly discuss the status of some of the key data sources. Table 4 gives the number and percentage of countries which have implemented at least two national household surveys (household income and expenditure, household budget, labour force, economic activity and integrated survey) between 1999 and 2007 and at least two international household surveys (demographic health surveys, multiple indicator cluster surveys and living standards measurement surveys) between 1999 and 2007, and which have complete vital registration coverage as of 2007.

55. As shown in table 4, only about half of the countries considered for the ESCAP region have conducted at least two national and international household surveys and have complete vital registration. North and Central Asia appears to have the highest overall coverage, considering all three types of data sources. Few Pacific countries have implemented national or international household surveys. In terms of vital registration, South-East Asia is lagging behind, with just over one fifth of its countries having complete coverage. South and South-West Asia and the Pacific are just ahead, with one third of each region's countries satisfying this requirement.

56. An expected result is the negative correlation of income (high-income countries are not included in the analysis) and the completion of international household surveys. During the period under review, 64 per cent of low-income countries implemented at least two such surveys; 46 per cent

¹⁹ See <http://mdgs.un.org/>.

of them were able to conduct two or more national household surveys, and only 15 per cent achieved complete vital registration. This indicates a clear dominant source of sociodemographic indicators for low-income countries. On the other hand, over half of middle-income countries have conducted at least two national household surveys and have complete vital registration, while only one third of these countries have implemented international surveys.

Table 4. Data sources for sociodemographic indicators, Asia and the Pacific

<i>Groupings</i>	<i>Countries with at least two national household surveys (1999-2007)</i>		<i>Countries with at least two international household surveys (1999-2007)</i>		<i>Countries with complete vital registration coverage (2007)</i>	
	<i>Number</i>	<i>Percentage</i>	<i>Number</i>	<i>Percentage</i>	<i>Number</i>	<i>Percentage</i>
ESCAP countries considered	22	55	18	44	18	45
East and North-East Asia ^a	2	100	1	33	1	50
South-East Asia	5	56	5	56	2	22
South and South-West Asia	5	50	5	50	3	30
North and Central Asia	8	89	6	67	9	100
Pacific	2	20	1	10	3	30
Low-income	6	46	9	64	3	15
Middle-income	16	59	9	33	23	56

Sources: Based on data from the Country Statistical Information Database of the World Bank (<http://go.worldbank.org/0EZUI59C70>), the MEASUREDHS site (<http://www.measuredhs.com/aboutsurveys/dhs/start.cfm>) and the United Nations Children's Fund Childinfo site (<http://www.childinfo.org/>).

^a The Democratic People's Republic of Korea is included in the international household surveys analysis, but excluded for national household surveys and completeness of vital registration coverage.

(b) Poverty: Goal 1—Eradicate extreme poverty and hunger

57. As shown in table 5, Africa has the highest data availability for prevalence of underweight children (72 per cent), while in Asia and the Pacific coverage is much lower (47 per cent). Within the ESCAP region, country coverage for underweight children is highest in low-income countries (79 per cent), likely due to the importance of internationally sponsored survey programmes, such as demographic health surveys or multiple indicator cluster surveys.

58. A positive relationship between income and availability can be found in regard to data on the proportion of own-account workers and contributing family workers, as a slightly larger percentage of

middle-income countries produce data for this indicator. Such information is collected through national household surveys, which are often not funded by donors. The fact that coverage for this indicator in Africa is only 20 per cent, while in Latin America it is over 50 per cent, supports this observation.

59. Population below national poverty line is not used to monitor Goal 1, but it is nevertheless a prominent indicator. As shown in table 5, only 34 per cent of ESCAP countries considered are able to produce poverty data using a national poverty line. North and Central Asia is the leading subregion, with 67 per cent of countries having at least two data points for this indicator. None of the Pacific countries has been able to provide at least two data points.

Table 5. Country data availability for selected poverty indicators

(Percentage of grouping)

<i>Groupings</i>	<i>Proportion of own-account and contributing family workers, both sexes^a</i>	<i>Underweight children under 5 years of age^b</i>	<i>Population below national poverty line, total percentage, adjusted</i>
Africa	20	72	34
Latin America and the Caribbean	54	48	30
ESCAP region	40	47	34
East and North-East Asia	71	43	29
South-East Asia	64	82	55
South and South-West Asia	50	90	60
North and Central Asia	44	67	67
Pacific	10	—	—
Low-income	36	79	50
Middle-income	39	57	46

Source: Based on data from the Millennium Development Goals Indicators data series (available at <http://mdgs.un.org/unsd/mdg/Data.aspx>).

Note: An em-dash (—) indicates that the amount is nil or negligible.

^a Millennium Development Goals indicator 1.7.

^b Millennium Development Goals indicator 1.8.

(c) *Education: Goal 2—Achieve universal primary education*

60. In each region considered here, less than one third of the countries can produce the literacy indicator (see table 6). In two ESCAP subregions, namely, North and Central Asia and the Pacific, no country data on literacy rates are produced. South and South-West Asia is a unique case, as 80 per cent of its countries are able to produce this indicator. Most literacy values are obtained through a model, that is, calculated using covariates or other explanatory variables of literacy for which there is data.

61. Net enrolment ratio is the indicator with the highest coverage in all regions considered and in most ESCAP subregions. The two extreme cases of country data availability are South and South-West Asia, at the high end, and the Pacific. The negative relationship between income and data availability is also observed in the case of education indicators.

Table 6. Country data availability for selected education indicators
(Percentage of grouping)

<i>Groupings</i>	<i>Millennium Development Goals Indicators</i>		
	<i>Net enrolment ratio in primary education, both sexes (2.1)</i>	<i>Proportion of pupils starting grade 1 who reach the last grade of primary, both sexes (2.2)</i>	<i>2.3 Literacy rates of 15-24-year-olds, both sexes (2.3)</i>
Africa	64	61	23
Latin America and the Caribbean	70	59	28
ESCAP region	57	50	28
East and North-East Asia	71	43	14
South-East Asia	73	73	64
South and South-West Asia	80	60	80
North and Central Asia	67	89	—
Pacific	29	19	—
Low-income	64	64	36
Middle-income	61	61	32

Source: Based on data from the Millennium Development Goals Indicators data series (available at <http://mdgs.un.org/unsd/mdg/Data.aspx>).

Note: An em-dash (—) indicates that the amount is nil or negligible.

(d) Health: Goal 5—Improve maternal health

62. Africa is the leading region in the country production of all the selected health indicators (see table 7). In the ESCAP region, contraceptive prevalence rate has the highest coverage (60 per cent). At the subregional level, more countries have been able to produce at least two data points for this indicator, with full coverage in South and South-West Asia.

63. Unmet need for family planning is the indicator with the lowest data availability across the world, the ESCAP region lagging behind the other developing regions. Among the subregions, the Pacific has the lowest percentage of countries able to produce sufficient data for these indicators. None of the Pacific countries has produced any data for antenatal care coverage or unmet need for family planning.

64. Low-income countries have consistently higher data availability for health indicators than do middle-income countries, emphasizing once again the critical role of international household survey programmes.

Table 7. Country data availability for selected health indicators*(Percentage of grouping)*

<i>Groupings</i>	<i>Millennium Development Goals Indicators</i>			
	<i>Contraceptive use among currently married women 15-49 years old, any method, percentage (5.3)</i>	<i>Adolescent birth rate per 1 000 women (5.4)</i>	<i>Antenatal care coverage, at least one visit, percentage adjusted (5.5)</i>	<i>Unmet need for family planning, total, percentage (5.6)</i>
Africa	77	72	69	44
Latin America and the Caribbean	43	39	57	30
ESCAP region	60	57	43	26
East and North-East Asia	86	43	29	14
South-East Asia	82	73	73	55
South and South-West Asia	100	90	70	50
North and Central Asia	89	56	89	33
Pacific	10	38	—	—
Low-income	86	71	71	43
Middle-income	61	68	54	32

Source: Based on data from the Millennium Development Goals Indicators data series (available at <http://mdgs.un.org/unsd/mdg/Data.aspx>).

Note: An em-dash (—) indicates that the amount is nil or negligible.

65. In short, low-income countries perform better than middle-income countries in collecting sociodemographic data and producing the related indicators. This is also visible on the global level, as Africa is the leading region for many of the indicators considered above. The prominence of donor support through initiatives such as international survey programmes appears to be a key driver of this achievement.

IV. CONCLUSIONS

66. The aim of the present report was to give an overview of statistics development in Asia and the Pacific. In terms of institutional capacity, NSDS status was adopted as an indicator of coordination in a national statistical system. In terms of technical capacity, the availability and quality of statistical outputs were the focus. SCI was used to provide an overall assessment of statistical capacity, and its components were used to guide the more in-depth discussions on the status of economic and sociodemographic statistics.

67. In many Asian and Pacific countries, a legal framework delineating the responsibilities of statistical organizations is in place. However, the lack of effective coordination among various statistical agencies seems to be a difficulty. Nearly half of the ESCAP countries were found to be lacking an NSDS. South-East and North and Central Asia are the better performing subregions, as most of their countries either have or are in the process of preparing a national strategy. Although the existence of a strategy does not directly lead to better and continued coordination, it constitutes a fundamental first step, as the process is designed, ideally, to include all the main actors of the national statistical system.

68. Based on SCI, the ESCAP region ranks between Africa and Latin America and the Caribbean in terms of overall statistical capacity. North and Central Asian countries dominate the high statistical-capacity group. There is a weak correlation between income and SCI score. Some low-income countries have high statistical-capacity scores whereas few higher income countries have low scores. The contribution of indicator availability is consistently higher than data collection and statistical practice components, highlighting a greater capacity in sociodemographic than in economic statistics.

69. Through the discussion on economic statistics, it was revealed that the majority of ESCAP countries subscribe either to GDSS or SDDS. In the developing world, ESCAP is the region with the highest number of countries subscribing to SDDS. Among the subregions, South-East Asia has the highest SDDS participation level. Many of these countries subscribed to the system in the first year after its launch, which means that few countries have made enough progress over the past decade to qualify. Although GDSS and SDDS are not systematically linked, the challenges are for the current GDSS subscribers, especially low-income countries, to graduate to SDDS and for the 15 non-subscribers to become integrated into the process.

70. In national accounts, income level seems to be more strongly correlated with capacity. The availability of national accounts statistics is consistently higher for middle- and high-income

countries. Also, as the requirements for different milestones and MRDS become more complicated, fewer low-income countries are able to fulfil them. For instance, less than one fifth of low-income countries in the region are able to produce all the MRDS tables, and only half of them comply with the milestone 2 requirements. East and North-East Asia and South and South-West Asia are the best performers in the national accounts assessment. According to the available ROSC country assessments, the main weaknesses in quality are due to deficiencies in statistical techniques, source data and resources.

71. The Millennium Development Goals-based results for sociodemographic statistics, on the other hand, highlight low-income countries as the champions. This reflects the importance of donor support in data collection and the production of these indicators. The percentage of low-income countries that implemented at least two international household surveys between 1999 and 2007 exceeds those which were able to carry out national ones during that period. Along those lines, the correlations between income and national household survey implementation and completeness of vital registration coverage are positive. In terms of subregions, North and Central Asia has the highest combined coverage of all three types of data sources.

72. The Pacific appears to have the lowest level of capacity in all the aspects of statistics development discussed above. That subregion often falls far behind the other subregions in institutional development, overall statistical capacity, and in economic and sociodemographic statistics. North and Central Asia demonstrates high levels of statistical capacity in all fields considered, except for national accounts. East and North-East Asia and South and South-West Asia are the leading subregions in national accounts practices. South-East Asia is especially strong in institutional development.

73. The results of this study point to challenges but also opportunities. Regional and subregional assessments are useful in identifying those who are in need and those who can help. In other words, knowing the statistical-capacity levels of different countries or subregions can foster South-South cooperation in addition to assistance from the traditional donors. Finally, it is vital to reiterate that the value of such assessments will increase, as transparent and systematic evaluation of statistical activities and outputs at the country level is established.

74. The Committee may wish to discuss and advise on:

- (a) The key achievements and challenges in statistics development for ESCAP member countries;
- (b) The region's priorities and the factors driving success in statistics development;
- (c) Whether such an assessment should be prepared by the secretariat on a regular basis and, if so, how the assessment framework can be expanded and enhanced.