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**Economic and Social Commission for Western Asia (ESCWA)**

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Item 5 of the provisional agenda

**MILLENNIUM DEVELOPMENT GOALS: MONITORING FRAMEWORK  
AND PROPOSALS FOR IMPROVEMENT****Summary**

The current report has been prepared as part of the commitments made by ESCWA to continuous monitoring and reporting on the Millennium Development Goals (MDGs). It comprises two parts: the first, provides comprehensive information on the revised MDG framework, including the main changes introduced in 2008, and addresses the issue of data availability. The second part contains an assessment of the key issues of data availability and gaps in data, including existing discrepancies between national and international sources of statistical information for the MDG indicators.

The Committee is invited to consider the strategic actions needed in order to enhance the capacity of national statistical systems in the region to improve monitoring and reporting on the MDGs, as well as to disseminate accurate and transparent metadata. It is further specifically invited to consider the proposed recommendations at the national and regional levels in order to enhance the statistical capacity of member countries and to guide the future direction of work of the ESCWA secretariat, particularly in terms of recommending areas and modalities for technical cooperation and statistical capacity-building during the biennium 2010-2011.

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## INTRODUCTION

1. The Economic and Social Commission for Western Asia (ESCWA) has continued its activities in monitoring and reporting on the progress achieved towards the attainment of MDGs in the ESCWA region, the details of which are considered under item 5 (c) of the provisional agenda. These efforts have been carried out in close cooperation with other United Nations entities at the regional level, the United Nations Statistics Division (UNSD) and the United Nations Development Group Office (UNDGO).
2. This report has been prepared as part of the commitment made by ESCWA member countries in response to the Millennium Declaration to monitor and report on the MDGs. It presents the main developments and issues of concern during the period 2006-2008. It comprises two parts. The first aims to provide the Committee with comprehensive information on the revised MDG framework, including the main changes introduced in 2008, and addresses the issue of data availability.
3. The second part assesses data availability, gaps in data and discrepancies between national and international estimates in order to analyse current key issues in MDG monitoring and reporting and their related challenges. It encourages statistical systems in the region to incorporate appropriate data collection plans into their statistical strategies, improve methodologies for the collection of basic data, raise the accuracy of estimates to bring them into line with international standards, and strengthen reporting mechanisms at the national and international levels.
4. The report contains proposals and recommendations to address the monitoring and reporting mechanisms at both the national and regional levels more fully, thus enhancing the statistical capacity of member countries. It also takes note of the technical cooperation and capacity-building activities by the secretariat for the biennium 2008-2009 and comments on the future direction of work for the biennium 2010-2011.

### I. REVISED OFFICIAL LIST OF MDG INDICATORS

#### A. BACKGROUND

5. In his report to the General Assembly in September 2006 (A/61/1) on the work of the Organization, the Secretary-General recommended the inclusion of four additional targets in the MDG framework, with appropriate indicators to measure progress towards them. Due consideration was given to the overall balance of topics and indicators covered by the MDG framework, with the objective of providing the best indicators to assess progress towards the new targets, whilst ensuring that the list remains relatively brief. The revised MDG Framework, effective 15 January 2008, is provided in the annex.
6. United Nations General Assembly resolution A/RES/57/270B mandates the United Nations Statistical Commission as the body ultimately responsible for the elaboration and review of the indicators. It also "...reiterates that the Statistical Commission is the intergovernmental focal point for the elaboration and the review of the indicators used by the United Nations system in the context of the integrated and coordinated implementation of and follow-up to the outcomes of major United Nations conferences and summits at all levels" and operates "...with the full participation of all countries and approved by the relevant intergovernmental bodies".
7. Through its participation in the Inter-Agency and Expert Group (IAEG) meetings on MDG indicators and its diligent follow-up on improving data monitoring and reporting, ESCWA has contributed to the revised framework and in the current document presents the Committee with comprehensive information on the revisions and changes.
8. In addition, ESCWA has compiled, where available, national data from the MDG reports produced by member countries, added data obtained through recent ESCWA questionnaires and submitted the resulting

reports to member countries for completion and verification. ESCWA will thus develop, for each member country and for the region as a whole, customized MDGInfo databases based on the newly-revised framework.

## B. NEW MDG TARGETS AND INDICATORS

9. A total of four new targets with 11 indicators have been recommended and endorsed by the Statistical Commission as follows:

Targets:	Indicators:
<p>New target in goal 1: Achieve full and productive employment and decent work for all, including women and young people</p>	<ul style="list-style-type: none"> <li>• Growth rate of GDP per person employed</li> <li>• Employment-to-population ratio</li> <li>• Proportion of people in employment living below \$1(PPP) per day</li> <li>• Proportion of own-account and contributing family workers in total employment</li> </ul>
<p>New target in goal 5: Achieve, by 2011, universal access to reproductive health</p>	<ul style="list-style-type: none"> <li>• Adolescent birth rate<sup>1</sup></li> <li>• Antenatal care coverage (at least one visit and at least four visits)<sup>2</sup></li> <li>• Unmet need for family planning<sup>3</sup></li> </ul>
<p>New target in goal 6: Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it</p>	<ul style="list-style-type: none"> <li>• Proportion of population with advanced HIV infection with access to antiretroviral drugs<sup>4</sup></li> </ul>
<p>New target in goal 7: Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss</p>	<ul style="list-style-type: none"> <li>• Proportion of fish stocks within safe biological limits</li> <li>• Proportion of total water resources used</li> <li>• Proportion of species threatened with extinction</li> </ul>

## C. REVISED MDG TARGETS AND INDICATORS

10. At IAEG meetings in the last two years, the agencies responsible for providing data for indicators made certain adjustments to the existing indicators which addressed the need to reword the titles for greater clarity and to reflect the precise content of the data series, and to eliminate or replace data series when data

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<sup>1</sup> The indicator “Adolescent birth rate”—a ‘user-friendly’ name for “Age-specific fertility rate 15-19 (ASFR15-19)” —was chosen over the alternative “Proportion of mothers at ages 15-19” because of greater data availability.

<sup>2</sup> Antenatal care coverage would include two components: “at least one visit”, which measures whether women have contact with the health system and can provide a larger database (with trend data); and “at least four visits,” which conforms to World Health Organization standards of adequate antenatal care.

<sup>3</sup> The indicator “Unmet need for family planning” is based on the standard definition used in the Demographic and Health Survey (DHS); comparable data can be obtained from both the DHS and other surveys.

<sup>4</sup> The indicator covers access to antiretroviral drugs by those in need, where those in need are defined as those living with HIV/AIDS who would die within two years in the absence of treatment.

coverage was insufficient. No changes were made to the existing indicators under goal 5. The revised framework also includes a note under the main title, which states: “All indicators should be disaggregated by sex and urban/rural as far as possible”. The changes made are detailed hereunder for the information of the Committee.

11. Goal 1, indicator 3, *Share of poorest quintile in national consumption*, has never been calculated. The World Bank agreed to make concrete proposals on ways to assess regional and global trends, based on regional income distribution estimates obtained from surveys.

12. Goal 2, indicator 7, *Proportion of pupils starting grade 1 who reach grade 5*, has been reworded as *Proportion of pupils starting grade 1 who reach last grade of primary*, as the reference to grade 5 is not applicable to all countries. The primary completion rate will continue to be presented as a background series in the MDG Indicators database, but the footnote indicating the completion rate as an alternative to Indicator 7 has been removed from the official list of MDG Indicators.

13. Goal 3, indicator 10 has been removed since it was already covered by goal 2, indicator 8 (now renumbered as indicator 2) and the indicator has been changed to *Literacy rate of 15-24 year-olds, women and men*, in order to highlight the gender dimension.

14. In goal 4, the words “pregnant women” have been deleted from indicator 18, *HIV prevalence among pregnant women aged 15-24 years*, which has been renumbered as indicator 1 and now reads *HIV prevalence among population aged 15-24 years*, as the Joint United Nations Programme on HIV/AIDS (UNAIDS) contended that the latter is more consistent with the data series used for the monitoring. Former indicator 19C, *Contraceptive prevalence rate*, has been moved to goal 5, indicator 3. Indicator 19, *Condom use rate of the contraceptive prevalence rate*, has been removed from the framework but will remain available in the MDG database. Former auxiliary indicators 19A, *Condom use at last high-risk sex*, and 19B, *Percentage of population aged 15-24 years with comprehensive correct knowledge of HIV/AIDS*, have been moved to indicator level as indicators 6.2 and 6.3 respectively and will no longer be presented as complements to former indicator 19. In former auxiliary indicator 19B, the word “percentage” has been changed to “proportion”, in line with the wording of other indicators and now reads *Proportion of population aged 15-24 years with comprehensive correct knowledge of HIV/AIDS*. This indicator no longer includes detailed footnotes, as those will be covered by the metadata.

15. In goal 6, the following changes have been made to former indicators 21, 22, 23, and 24:

- Former indicator 21, *Prevalence and death rates associated with malaria*, has been renumbered as indicator 6 and changed to *Incidence and death rates associated with malaria*, “incidence” reflecting more accurately what is being reported and being a better measure for monitoring the burden of the disease.
- Former indicator 22, *Proportion of population in malaria-risk areas using effective malaria prevention and treatment measures*, has been disaggregated into two separate indicators, numbered 7 and 8, and reworded as *Proportion of children under 5 sleeping under insecticide-treated bednets* (indicator 7) and *Proportion of children under 5 with fever who are treated with appropriate anti-malarial drugs* (indicator 8), to reflect the actual measures used for monitoring.
- Former indicator 23, *Prevalence and death rates associated with tuberculosis*, will now also include incidence of the disease. The revised indicator, renumbered as indicator 9, therefore reads *Incidence, prevalence and death rates associated with tuberculosis*. This will provide a better picture of the evolution of the spread of the disease.
- The description of former indicator 24 has been simplified and instead of *Proportion of tuberculosis cases detected and cured under directly observed treatment short course DOTS* (the

internationally-recommended TB control strategy), the indicator now reads: *Proportion of tuberculosis cases detected and cured under directly observed treatment short course.*

16. In goal 7, the following changes have been made:

- Former indicator 26, *Ratio of area protected to maintain biological diversity to surface area*, has been changed to *Proportion of terrestrial and marine areas protected* and renumbered as indicator 6. In addition, the United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC) is working towards separate presentation of terrestrial and marine series. Data for the separate series should be available for the 2008 round.
- Former indicator 27, *Energy use (kg oil equivalent) per \$1 GDP (PPP)*, has been removed from the framework.
- Former indicator 28, *Carbon dioxide emissions (per capita) and consumption of ozone-depleting CFCs (ODP tons)*, has been disaggregated into two separate indicators, numbered 2 and 3, and reworded as *Carbon dioxide emissions, total, per capita and per \$1 GDP (PPP)* (indicator 2) and *Consumption of ozone-depleting substances* (indicator 3). Consumption of ozone-depleting CFCs will be presented in ODP metric tons.
- Former indicator 29, *Proportion of population using solid fuels*, has been removed from goal 7, as it was determined that it did not measure any dimensions set by the targets under this goal.
- Former indicator 30, *Proportion of population with sustainable access to an improved water source, urban and rural*, has been renumbered as indicator 8 and renamed to reflect more accurately what is being measured, now reading *Proportion of population using an improved drinking water source.*
- Former indicator 31, *Proportion of population with access to improved sanitation*, has been renamed *Proportion of population using an improved sanitation facility* and renumbered as indicator 9.
- Former indicator 32, *Proportion of households with access to secure tenure (owned or rented)*, has been renamed *Proportion of urban population living in slums*, to reflect what is actually being measured, and renumbered as indicator 10. This indicator has, however, been footnoted to explain that at present the actual proportion of people living in slums is measured by a proxy, represented by the urban population living in households with at least one of the following four characteristics: (a) lack of access to improved water supply; (b) lack of access to improved sanitation; (c) overcrowding (3 or more persons per room); and (d) dwellings made of non-durable material.

17. In goal 8, former indicator 43, *Debt relief committed under HIPC Initiative, US\$*, has been modified to *Debt relief committed under HIPC and MDRI Initiatives* and renumbered as indicator 11. Former indicator 47, *Telephone lines and cellular subscribers per 100 population*, has been disaggregated into two separate indicators: *Telephone lines per 100 population* and *Cellular subscribers per 100 population*, numbered 14 and 15 respectively. The data series on personal computers in the MDG database will be removed for former indicator 48, *Personal computers in use per 100 population and Internet users per 100 population*, and the indicator has been renamed *Internet users per 100 population* and renumbered as indicator 16.

## II. AVAILABILITY OF NATIONAL DATA IN THE REVISED MDG FRAMEWORK

### A. SOURCES AND METHODOLOGY

18. The revised MDG framework consists of a set of 8 goals, 21 targets and 60 indicators. For purposes of analysis, 35 indicators were included in the assessment, for which member country-sourced data for each MDG indicator were available, providing at least 2 data points a minimum of five years apart in the period since 1990, including data disaggregated by sex and geographical area.

19. Assessment of the availability of data is based on national data as supplied by member countries. The secretariat has therefore collected, where available, national data from the MDG Reports (MDGRs) produced by member countries and from questionnaires issued by ESCWA. Accordingly, indicators which are newly-introduced in the revised framework referred to in section B above have not been included in the analysis.

20. Indicators 1 to 5 under goal 6 on HIV/AIDs have not been considered in the analysis, since countries in the ESCWA region do not compile data on HIV/AIDs, as it is not yet considered a national health issue. Nevertheless, in its national MDGR, Bahrain underscored the need to “develop a national capacity for HIV/AIDS surveillance” and to “improve the relevant health information systems, quality of data and analysis”.<sup>5</sup> Similarly, in its MDGR, Jordan highlighted the need to conduct national studies to “fill the knowledge gaps on HIV/AIDS and other diseases ... [and] ... conduct research on life-style and on other issues possibly affecting the increase of non-infectious diseases”.<sup>6</sup> In addition, no data is provided on the incidence rates of malaria and tuberculosis under indicators 6 and 9, as they were added to the original indicators when the framework was revised and are thus excluded from the analysis.

21. The indicators falling under goal 8, targets A-D, have not been considered in the analysis, since they are used only at the aggregate level (and therefore not itemized at the country level) and/or relate to donor countries.

22. Data relating to two indicators are rarely or never included in reporting by member countries and have thus been excluded from the analysis. These are: 6.7, *Proportion of children under 5 sleeping under insecticide-treated bednets*, and 6.8, *Proportion of children under 5 with fever who are treated with appropriate anti-malarial drugs*.

### B. COUNTRY COVERAGE BY INDICATOR

23. Total of 35 indicators for the then 13 ESCWA member countries have been assessed in terms of data availability and capacity of the countries to monitor progress made towards achieving the MDGs.

24. The overall result of the assessment reveals that the average availability of the MDG indicators in the countries of the region is about 53 per cent, indicating that there is a need to improve the capacity of member countries to compile and disseminate data for MDG monitoring and reporting. The indicators have been grouped into five clusters, ranging from those with the lowest level of data availability (8 per cent) to those with the highest (100 per cent) by country coverage. The five clusters are analysed in detail below.

25. **Cluster (a)** includes indicators for which fewer than 23 per cent of member countries have at least two data points since 1990. This group includes crucial indicators related to monitoring environmental sustainability in the region, such as the greenhouse effect, water scarcity and the consequences of urbanization.

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<sup>5</sup> Millennium Development Goals: First Report, Kingdom of Bahrain, p. 15.

<sup>6</sup> The Millennium Development Goals: Jordan Report 2004, Ministry of Planning and International Cooperation and United Nations in Jordan, p. 45.

Indicators in cluster (a)	Countries with 2 data points	
	Number	Percentage
7.3. <i>Consumption of ozone-depleting substances</i>	1	8
7.5. <i>Proportion of total water resources used</i>	3	23
7.10. <i>Proportion of urban population living in slums</i>	1	8

26. **Cluster (b)** includes indicators for which between 31 and 46 per cent of member countries have at least two data points since 1990. This group includes indicators related to poverty and the greenhouse effect, which are considered to be challenging indicators for countries collecting data for monitoring and reporting. There is a significant variation in poverty levels within the ESCWA region. In this context, the inadequacy and irregularity of the available national and disaggregated data pose a significant challenge for monitoring these indicators. The indicators on CO2 emissions and women in decision-making present an additional challenge, due to complexity in compilation and/or reporting.

Indicators in cluster (b)	Countries with 2 data points	
	Number	Percentage
1.1. <i>Proportion of population below \$1 (PPP) per day</i>	5	38
1.2. <i>Poverty gap ratio</i>	6	46
1.3. <i>Share of poorest quintile in national consumption</i>	4	31
3.3. <i>Proportion of seats held by women in national parliament</i>	5	38
7.2. <i>CO2 emissions, total, per capita and per \$1 GDP (PPP)</i>	4	31
8.13. <i>Proportion of population with access to affordable essential drugs on a sustainable basis</i>	5	38

27. **Cluster (c)** includes indicators for which 54 to 69 per cent of ESCWA member countries have at least two data points since 1990. This group includes such crucial indicators for the region as malnutrition, education, gender parity, tuberculosis, malaria and forest areas, which require regular monitoring.

Indicators in cluster (c)	Countries with 2 data points	
	Number	Percentage
1.9. <i>Proportion of population below minimum level of dietary energy consumption</i>	8	62
2.1. <i>Net enrolment ratio in primary education</i>	9	69
2.2. <i>Proportion of pupils starting grade 1 who reach last grade of primary</i>	7	54
2.3. <i>Literacy rate of 15-24 year-olds, women and men</i>	7	54
3.1(c). <i>Ratio of girls to boys in secondary education</i>	7	54
3.1(b). <i>Ratio of girls to boys in tertiary education</i>	7	54
3.2. <i>Share of women in wage employment in the non-agricultural sector</i>	7	54
6.6(a). <i>Death rates associated with malaria</i>	8	62
6.10(a). <i>Proportion of tuberculosis cases detected under directly observed treatment short course</i>	7	54
6.10(b). <i>Proportion of tuberculosis cases cured under directly observed treatment short course</i>	9	69
7.1. <i>Proportion of land area covered by forest</i>	7	54



28. **Cluster (d)** includes indicators for which 77 to 92 per cent (almost all ESCWA member countries) have at least two data points since 1990. This group includes such crucial indicators related to the region as education, gender parity, tuberculosis, reproductive health and the water and sanitation infrastructure, which require regular monitoring by member countries.

Indicators in cluster (d)	Countries with 2 data points	
	Number	Percentage
1.8. <i>Prevalence of underweight children under five years of age</i>	12	92
3.1(a). <i>Ratio of girls to boys in primary education</i>	10	77
5.2. <i>Proportion of births attended by skilled health personnel</i>	10	77
5.3. <i>Contraceptive prevalence rate</i>	10	77
6.9(b). <i>Death rates associated with tuberculosis</i>	12	92
7.8. <i>Proportion of population using an improved drinking water source</i>	10	77
7.9. <i>Proportion of population using an improved sanitation facility</i>	11	85

29. **Cluster (e)** includes the eight out of 35 indicators that have complete coverage by all ESCWA member countries:

Indicators in cluster (e)	Countries with 2 data points	
	Number	Percentage
4.1. <i>Under-five mortality rate</i>	13	100
4.2. <i>Infant mortality rate</i>	13	100
4.3. <i>Proportion of 1 year-old children immunized against measles</i>	13	100
5.1. <i>Maternal mortality ratio</i>	13	100
6.9(a). <i>Prevalence rates associated with tuberculosis</i>	13	100
8.14. <i>Telephone lines per 100 population</i>	13	100
8.15. <i>Cellular subscribers per 100 population</i>	13	100
8.16. <i>Internet users per 100 population</i>	13	100

### C. GENDER COVERAGE BY INDICATOR

30. Gender-sensitive indicators and disaggregated data by sex provide policymakers with detailed information for targeted intervention. However, most countries continue to collect and compile data that often fail to reflect gender inequalities. Frequently, published data mask gender differences and do not support policymaking efforts towards achieving gender equality and the empowerment of women.

31. Few ESCWA member countries provide sex-disaggregated data. Under the goal relating to the eradication of poverty, one indicator, namely, 1.8 *Prevalence of underweight children under five years of age*, is disaggregated by sex by only 5 out of 12 countries. Similarly, under the goal relating to education, very few countries present sex-disaggregated data for such indicators as 2.1 *Net enrolment ratio in primary education* (4 countries), 2.2 *Proportion of pupils starting grade 1 who reach last grade of primary* (2 countries) and 2.3 *Literacy rate of 15-24 year-olds, women and men* (4 countries).

32. Nine countries produce separate data for girls and boys on indicator 4.1 *Under-five mortality rate* and four countries do so for indicator 4.2 *Infant mortality rate*. Three countries disseminate disaggregated data by sex on indicator 6.6 *Incidence and death rates associated with malaria* and only one country reports data separately for women and men on indicator 6.9(b) *Death rates associated with tuberculosis*.

33. In their national MDGRs, nearly half the member countries ranked the MDG monitoring environment, as weak in terms of incorporating gender statistics into policy, while the incorporation of statistical analysis into policy, planning and resource allocation mechanisms was considered the weakest element by all countries.

#### D. AREA COVERAGE BY INDICATOR

34. There is considerable awareness of the need to monitor MDGs not only at the country level, but more importantly at the sub-national level and, in particular, by geographical area in relation to such characteristics as sex and ethnicity. There is also an urgent need to address the issue of inequality and monitor social disparities, and this requires the production of detailed data on targeted populations.

35. Most countries that produce sex-disaggregated data on indicators 1.8 *Prevalence of underweight children under five years of age*, 4.1 *Under-five mortality rate*, and 4.2 *Infant mortality rate* also compile data by rural and urban areas.

36. Data by rural and urban areas is only produced by two countries on indicator 5.1 *Maternal mortality ratio*, four countries on indicator 5.2 *Proportion of births attended by skilled health personnel* and five countries on indicator 5.3 *Contraceptive prevalence rate*.

37. Similarly, nearly half of the member countries that report on indicators 7.8 *Proportion of population using an improved drinking water source* and 7.9 *Proportion of population using an improved sanitation facility* also produce them by geographical area.

38. ESCWA member countries are encouraged to expand their data compilation and to produce and disseminate disaggregated data by geographical area in order to provide policymakers with the evidence that they need in order to plan and budget appropriately.

### III. DISCREPANCIES IN DATA AND METADATA BETWEEN AVAILABLE NATIONAL AND INTERNATIONAL SOURCES

#### A. BACKGROUND

39. Previous sessions of the Statistical Commission have raised major issues concerning the key shortcomings in MDG monitoring, including the following: (a) more data are available at the national level than those reported in the UNSD MDG database; (b) some substantial differences exist between data produced and disseminated by countries and those reported by international agencies; (c) the poor content of metadata for some MDG indicators; and (d) the use of imputations by international agencies to fill in data gaps. Discussions have highlighted the need to establish a process to improve the transfer of data from countries to international agencies and among international agencies, as recommended by the Friends of the Chair.<sup>7</sup>

40. With a view to improving the data and metadata in the international database, the IAEG on MDGs made several recommendations, including the following: (a) adding a detailed explanation of the difference between global and national monitoring and related implications on methods and data presentation;

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<sup>7</sup> Report of the thirty-eighth session of the Statistical Commission (E/CN.3/2007/13).

(b) adding metadata on population estimates used to calculate indicators; (c) including in the UNSD website<sup>8</sup> a mechanism for users to provide feedback to better understand users' needs and for them to request additional information; and (d) including three new categories of metadata to provide users with more detailed information on agencies responsible for the compilation of data and on sources used.

41. The IAEG further recommended the following actions to improve the reporting mechanisms from national statistical systems to international agencies: (a) involve the regional commissions more extensively in data checking (discrepancies between national and international data series) and in channelling and following up on specific queries on data and metadata between national statistical systems and international agencies; (b) identify an MDG focal point, inside the national statistical system, for the coordination of official statistics on MDGs; (c) improve data sharing at the international level and better identify the leading agency and its specific data requirements for each substantive topic; and (d) establish a national statistical system website and database, providing a single set of data (after reconciliation of all possible data sources in the country, including administrative records) and a calendar for dissemination of official statistics. Taking this step would facilitate the use of official statistics in the international community and reduce the burden on countries and international agencies.

## B. SOURCES AND METHODOLOGY

42. In an effort to analyse discrepancies in data and metadata, and gaps between national and international sources, the secretariat selected the health-related MDG indicators as a sample. Three main considerations underlay this selection: (a) the Economic and Social Council substantive segment will focus on the MDG health sector in 2009; (b) health-related MDG indicators constitute nearly half the total number of MDG indicators; and (c) country coverage in data availability is adequate for conducting a viable analysis.

43. Accordingly, a detailed assessment of all 25 health-related MDG indicators was undertaken in order to assess the extent of discrepancies between the availability in terms of data points and content, including those discrepancies related to the metadata reported by both national and United Nations Statistics Division (UNSD) sources. The indicators were assessed irrespective of the number of data points available in both sources as at May 2008.

44. During 2007/2008, ESCWA sent questionnaires to member countries covering the period 1990-2006, with a compilation of time series data on 25 MDG health-related indicators drawn from both national and UNSD sources, and United Nations metadata covering the same 17 year period. It requested national statistical offices to review their data and provide full metadata information on each indicator in cooperation with the relevant line ministry. While responses were received from all countries on the data which was used to assess discrepancies and gaps, only six<sup>9</sup> countries provided information on the metadata on which the metadata assessment is based.

## C. DISCREPANCIES IN DATA AVAILABILITY

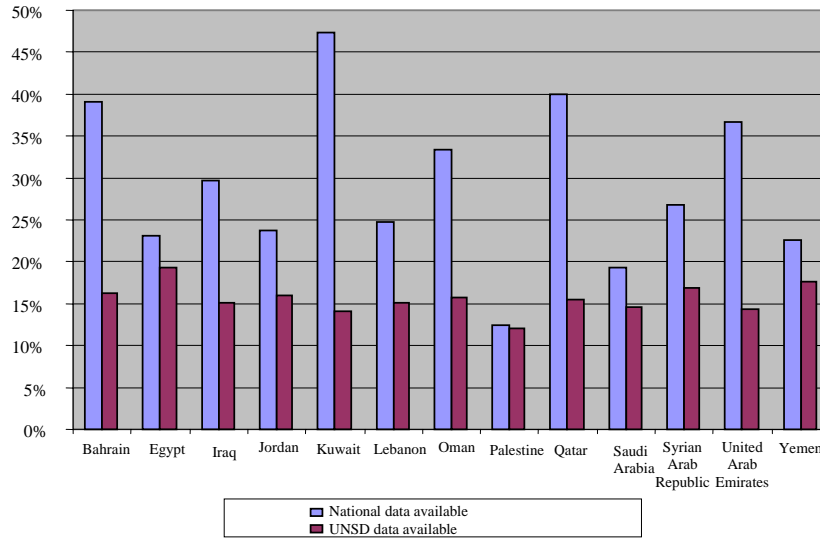
45. Major differences exist in the data availability reported by the two sources. The greater the difference in data availability reported, the higher the possibility of major shortcomings in the reporting mechanism between them.

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<sup>8</sup> <http://mdgs.un.org>.

<sup>9</sup> Iraq, Lebanon, Oman, Palestine, the Syrian Arab Republic and Yemen. Egypt was excluded from the metadata assessment exercise because the national metadata provided for each indicator was an exact copy of the UNSD metadata, raising the possibility of miscommunication regarding the purpose of the questionnaire exercise.

**Chart 1. Data availability: national vs. UNSD**  
(Total points in time)

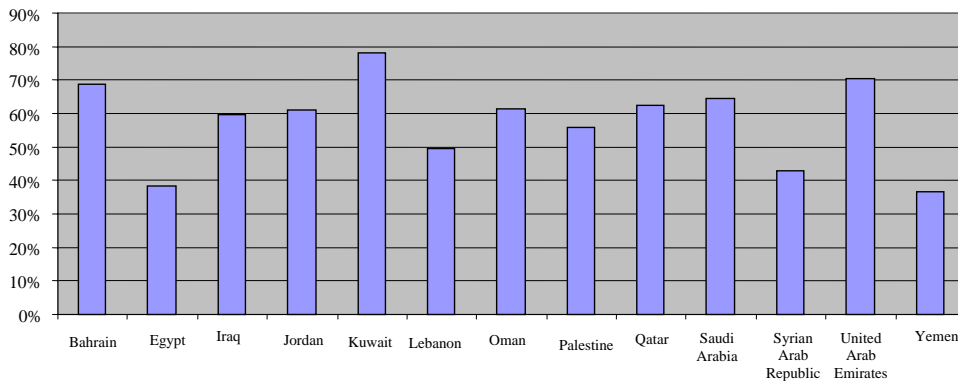


46. The regional average for all data available from national sources is 29.4 per cent, ranging from 14 to 47 per cent of all data points available for all the indicators. The regional average for all data available in the UNSD database is only 16 per cent, ranging from 13 per cent to 20 per cent of all data points available for all indicators. UNSD therefore disseminates little more than half the data reported in national sources. Chart 1 above shows the percentage of data made available by each country in comparison to those made available in the UNSD database.

**D. DISCREPANCIES IN DATA REPORTING**

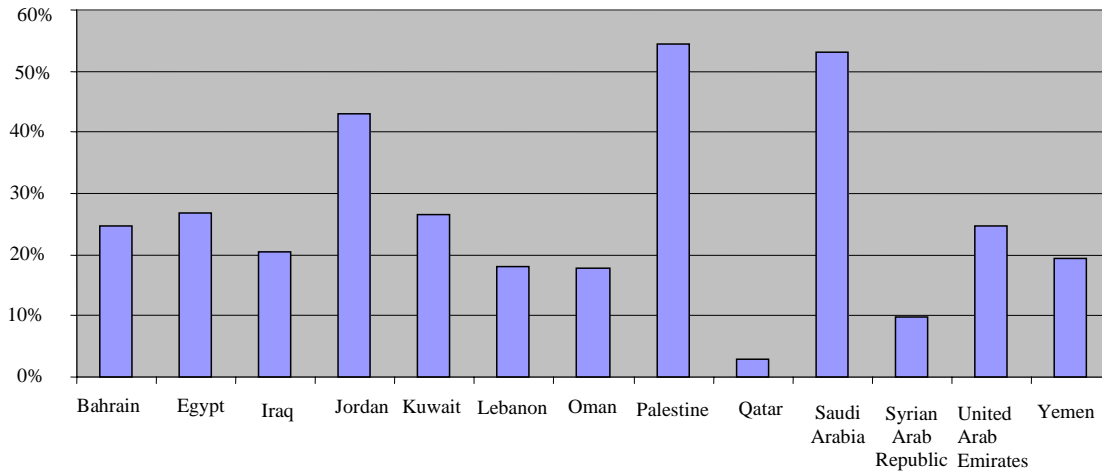
47. These differences are further elaborated in chart 2, which illustrates the magnitude of the failure by the UNSD database to capture and report on national available data, ranging from 37 per cent to 78 per cent of all data points for all indicators.

**Chart 2. National data available and not reported in UNSD database**



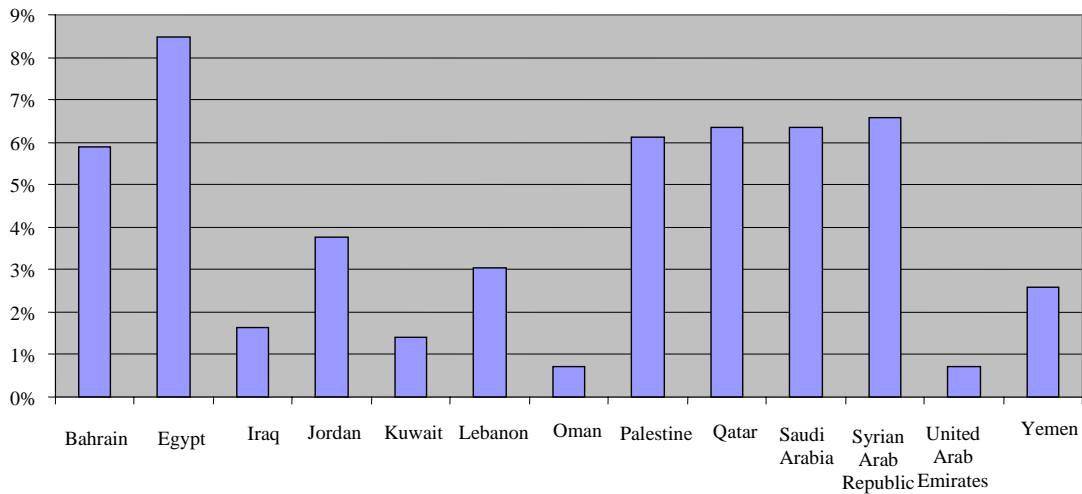
48. On the other hand, chart 3 illustrates the reserve situation, in which the UNSD database contains “national” data that has not been reported by the country itself. The UNSD database contains between 3 and 53 per cent of recorded data not reported nationally.

**Chart 3. UNSD available data not found in national databases**



49. In addition, while the UNSD database reports on aggregated data available from national sources, it fails to do so on disaggregated data. Chart 4 illustrates country-disaggregated data that is not included in the UNSD database.

**Chart 4. National disaggregated data available and not reported in UNSD database**

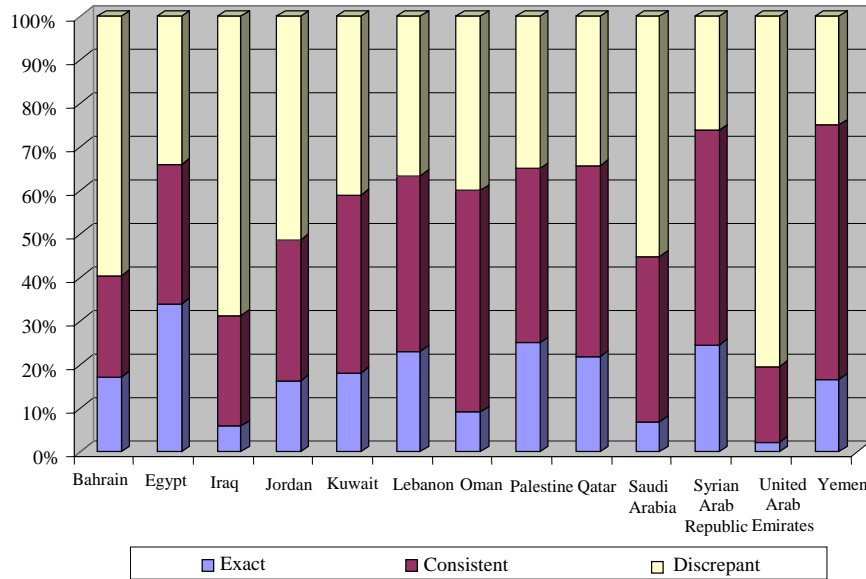


**E. DISCREPANCIES IN DATA VALUE**

50. Discrepancy in data value between national and United Nations sources emanates from one or more components related to the metadata of each indicator; those include definition, method of calculation, targeted population and subpopulation, sources of data and estimation methods.

51. In 18 per cent of cases, where data are available for the same indicator in the same year for a given country, there is an exact match in values between those recorded nationally and those in the UNSD database. A further 39 per cent of data points are consistent in value (+ or – 10 per cent) in both sources, while 44 per cent of data points are discrepant between the two sources. Chart 5 illustrates the level of consistency in value between national and UNSD data for each country.

**Chart 5. Available datapoints for national and UNSD**



#### F. LEVEL OF DISCREPANCY BY INDICATOR

52. In order to conduct an in-depth analysis of discrepancies in values, the national value for each indicator in a given year was assessed against the UNSD value for the same year to derive discrepancy ranges. Indicators with a discrepancy value equal to or less than 15 per cent or with no data value in either source have not been included in the analysis. As a result, 13 of the 25 indicators have been categorized by discrepancy level.

53. The detailed analysis reveals four discrepancy levels: low, with discrepancy ranging from 16 per cent to 30 per cent; medium, from 31 per cent to 50 per cent; high, from 51 per cent to 70 per cent; and major, for discrepancy over 70 per cent. The discrepancy levels for each of the 13 indicators and the number of member countries falling within each level are shown in the following table.

54. The table shows that the indicator on *Tuberculosis prevalence rate per 100,000 population* has the highest level of reported discrepancy among countries (nine countries), with a major discrepancy of over 70 per cent in six countries. Conversely, the indicator on *Proportion of tuberculosis cases successfully treated under DOTS* has only one country recorded at the lowest level of discrepancy (between 16 and 30 per cent) and none recorded at higher discrepancy levels.

TABLE. LEVEL OF DISCREPANCY BETWEEN NATIONAL AND UNSD DATA  
BY INDICATOR AND NUMBER OF COUNTRIES

Indicators	Level of discrepancy and number of countries			
	Low	Medium	High	Major
	16-30%	31-50%	51-70%	>70%
Prevalence of underweight children under five years of age	1			2
Proportion of population below minimum level of dietary energy consumption	2			1
Under-five mortality rate	3	2		
Infant mortality rate	4	3		
Proportion of 1 year-old children immunized against measles		3		
Maternal mortality ratio	1			2
Condom use rate of the contraceptive prevalence rate		2	2	1
Contraceptive prevalence rate	1	1		
Tuberculosis prevalence rate per 100,000 population	2	1		6
Death rate associated with tuberculosis per 100,000 population				1
Proportion of tuberculosis cases detected under DOTS	4	1		1
Proportion of tuberculosis cases successfully treated under DOTS	1			
Proportion of population with access to improved sanitation			1	

55. The results of this analysis clearly require member countries to review their computation methods, sources and definitions and to bring them into line with internationally-recommended standards. Most importantly, countries must document metadata in order to be able to review it and make adjustments where needed. International agencies, in particular, such as the World Health Organization (WHO) and the United Nations Children’s Fund (UNICEF) must strengthen member country capacity and provide technical support in order to reduce the incidence of discrepancies to an acceptable level.

#### G. AVAILABILITY AND DISCREPANCIES IN METADATA

56. Six countries provided metadata on the MDG health-related indicators. It is of note that countries with well-documented metadata were first to respond to the questionnaire, which may reflect an organized referencing and documentation system, while others reported difficulty in compiling the metadata.

57. From the UNSD and national metadata provided, the following observations can be drawn:

(a) Most countries use the same data sources, whereas United Nations agencies generally use different source types, including administrative records, surveys and censuses, to produce their estimates;

(b) Some countries attribute discrepancies to under-reporting on certain indicators;

(c) Most estimates are derived from household surveys and therefore incorporate confidence intervals that must be considered when comparing values over time or across countries. Similarly, such estimates are frequently affected by non-sampling errors that may equally affect recent levels and trends;

(d) Bias occurs when the data collection/reporting system excludes part of the population. Biased estimates of coverage can also be the result of an inaccurate denominator—the size of the target group. An overestimate of the denominator will bias coverage, while an underestimate will inflate the estimate of coverage. This bias can most readily be seen when coverage is high and the denominator has been underestimated;

(e) Errors in estimating the denominator may result from population projections that are based on old censuses or may be due to sudden shifts in populations, such as internal migration;

(f) In order to minimize differences between estimates produced from different sources (such as administrative records, surveys and censuses) certain United Nations agencies make estimates using a variety of methods to reduce the errors embodied in each estimate and harmonize trends over time, as well as to maximize consistency of trend data;

(g) Standardized questions for inclusion in national household surveys in order to provide internationally-comparable data are not available;

(h) For certain indicators, the agencies responsible for supplying information do not provide complete metadata;

(i) The lack of data may be partly attributed to conceptual and methodological gaps, insufficient administrative records/registers, limited financial resources that are not sufficient to allow for a system of regular surveys or data collection and poor coordination between the various agencies that collect data;

(j) Country MDGRs do not always reflect the data available. This may be due to the lack of a centralized database, or to the fact that data are collected and tabulated, but not published; collected, but not tabulated; or collected, but not processed. In some cases, data is not collected at all if the countries deem the indicator irrelevant.

58. Data, if accompanied by clear and transparent metadata, are useful for two main reasons: firstly, they may be used by countries when no official statistics are available, and secondly, they may make the global monitoring process more transparent by providing users with the underlying imputed data used to produce regional and global aggregates. It is therefore important to stress the need to make metadata available with a clear explanation of the process leading to the imputed figures, including the data, definitions and techniques used to obtain the imputed data.

#### **IV. CONCLUSION AND PROPOSALS FOR IMPROVEMENT**

59. The issues presented on data availability in the revised MDG framework and those on discrepancies between national and international estimates require the urgent attention of the Committee, which is called upon to consider strategic action to enhance the capacity of national statistical systems in order to improve monitoring and reporting on the progress made towards achieving in MDGs and disseminate accurate and relevant metadata.

60. At the national level, the proposals for improvement are as follows:

(a) Improve data availability by:

- (i) Reviewing current methodologies for imputations and consultation mechanisms with national statistical offices;
- (ii) Organizing workshops and/or producing handbooks and guidelines to improve the production and transparency of indicators and methodologies, and providing direction on recommended consultation mechanisms, with a view to bringing the least-tracked indicators, in particular, into line with international standards;
- (iii) Carrying out the required surveys and censuses and improving administrative registers for the periodic production of data on MDG indicators, other development data and country-specific indicators;
- (iv) Developing and maintaining a central repository at the national and sub-national levels, disaggregated by sex, where applicable, and user-accessible;



(b) Improve dissemination by:

- (i) Publishing metadata with relevant indicators in order to improve transparency, quality and dissemination practices in line with international standards;
- (ii) Providing disaggregated data, where applicable, by age, educational attainment, geographical area, ethnic group, urban/rural and gender in order to highlight patterns within countries, thus facilitating comparisons across sub-populations for effective planning and budgeting by policymakers;
- (iii) Publishing a new round of MDGRs, taking note of the new MDG revised framework and including comprehensive coverage in terms of disaggregated data with relevant metadata and trend analysis to track progress towards achievement of goals.

61. At the regional level, the secretariat proposes to implement the following initiatives in 2010-2011:

(a) Review and identify regional priorities and propose ways to improve the production and analysis of MDGs, including development indicators;

(b) Propose future courses of action, particularly in terms of recommending areas and modalities for technical cooperation and statistical capacity-building;

(c) Facilitate regional, interregional and South-South cooperation within member countries and with countries in other regions by mobilizing extrabudgetary resources, technical networking, twinning or contributions in kind towards statistical capacity-building initiatives;

(d) Develop and maintain a regional central database derived from national databases and publications to monitor availability, track progress and plan capacity-building activities in focused statistical areas;

(e) Review and discuss mechanisms available to agencies for gathering data from countries, their methods of compilation of international data series and the imputation techniques used to calculate regional and global estimates for MDG indicators;

(f) Identify ways to improve compilation of regional data series by improving reporting mechanisms from national statistical systems to international agencies;

(g) Compile and review national metadata published in national central databases and make recommendations on ways to improve them;

(h) Review current methodologies for imputations and consultation mechanisms with member countries and recommend methods to improve methodologies, transparency and consultation mechanisms, both within countries and with international agencies.

Annex

**REVISED MDG FRAMEWORK**

**Official list of MDG indicators**

**All indicators should be disaggregated by sex  
and urban/rural as far as possible.**

*Effective 15 January 2008*

Millennium Development Goals (MDGs)	
Goals and Targets (from the Millennium Declaration)	Indicators for monitoring progress
Goal 1: Eradicate extreme poverty and hunger	
Target 1.A: Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day	1.1. Proportion of population below \$1 (PPP) per day <sup>a/</sup> 1.2. Poverty gap ratio 1.3. Share of poorest quintile in national consumption
Target 1.B: Achieve full and productive employment and decent work for all, including women and young people	1.4. Growth rate of GDP per person employed 1.4. Employment-to-population ratio 1.5. Proportion of employed people living below \$1 (PPP) per day 1.6. Proportion of own-account and contributing family workers in total employment
Target 1.C: Halve, between 1990 and 2015, the proportion of people who suffer from hunger	1.7. Prevalence of underweight children under-five years of age 1.8. Proportion of population below minimum level of dietary energy consumption
Goal 2: Achieve universal primary education	
Target 2.A: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling	2.1. Net enrolment ratio in primary education 2.2. Proportion of pupils starting grade 1 who reach last grade of primary 2.3. Literacy rate of 15-24 year-olds, women and men
Goal 3: Promote gender equality and empower women	
Target 3.A: Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015	3.1. Ratios of girls to boys in primary, secondary and tertiary education 3.2. Share of women in wage employment in the non-agricultural sector 3.3. Proportion of seats held by women in national parliament
Goal 4: Reduce child mortality	
Target 4.A: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate	4.1. Under-five mortality rate 4.2. Infant mortality rate 4.3. Proportion of 1 year-old children immunized against measles
Goal 5: Improve maternal health	
Target 5.A: Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio	5.1. Maternal mortality ratio 5.2. Proportion of births attended by skilled health personnel
Target 5.B: Achieve, by 2015, universal access to reproductive health	5.3. Contraceptive prevalence rate 5.4. Adolescent birth rate 5.5. Antenatal care coverage (at least one visit and at least four visits)

Millennium Development Goals (MDGs)	
Goals and Targets (from the Millennium Declaration)	Indicators for monitoring progress
	5.6. Unmet need for family planning
Goal 6: Combat HIV/AIDS, malaria and other diseases	
Target 6.A: Have halted by 2015 and begun to reverse the spread of HIV/AIDS	6.1. HIV prevalence among population aged 15-24 years 6.2. Condom use at last high-risk sex 6.3. Proportion of population aged 15-24 years with comprehensive correct knowledge of HIV/AIDS 6.4. Ratio of school attendance of orphans to school attendance of non-orphans aged 10-14 years
Target 6.B: Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it	6.5. Proportion of population with advanced HIV infection with access to antiretroviral drugs
Target 6.C: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases	6.6. Incidence and death rates associated with malaria 6.7. Proportion of children under 5 sleeping under insecticide-treated bed nets 6.8. Proportion of children under 5 with fever who are treated with appropriate anti-malarial drugs 6.9. Incidence, prevalence and death rates associated with tuberculosis 6.10. Proportion of tuberculosis cases detected and cured under directly observed treatment short course
Goal 7: Ensure environmental sustainability	
Target 7.A: Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources	7.1. Proportion of land area covered by forest 7.2. CO2 emissions, total, per capita and per \$1 GDP (PPP) 7.3. Consumption of ozone-depleting substances 7.4. Proportion of fish stocks within safe biological limits
Target 7.B: Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss	7.5. Proportion of total water resources used 7.6. Proportion of terrestrial and marine areas protected 7.7. Proportion of species threatened with extinction
Target 7.C: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation	7.8. Proportion of population using an improved drinking water source 7.9. Proportion of population using an improved sanitation facility
Target 7.D: By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers	7.10. Proportion of urban population living in slums <sup>b/</sup>
Goal 8: Develop a global partnership for development	
Target 8.A: Develop further an open, rule-based, predictable, non-discriminatory trading and financial system Includes a commitment to good governance, development and poverty reduction – both nationally and internationally	<i>Some of the indicators listed below are monitored separately for the least developed countries (LDCs), Africa, landlocked developing countries and small island developing States.</i>  <u>Official development assistance (ODA)</u>  8.1. Net ODA, total and to the least developed countries, as percentage of OECD/DAC donors' gross national income 8.2. Proportion of total bilateral, sector-allocable ODA of OECD/DAC donors to basic social services (basic education, primary health care, nutrition, safe water and sanitation) 8.3. Proportion of bilateral official development assistance of OECD/DAC donors that is untied
Target 8.B: Address the special needs of the least developed countries Includes: tariff and quota free access for the least developed countries' exports; enhanced programme of debt relief for heavily indebted poor countries (HIPC) and cancellation of official bilateral debt; and more generous ODA for countries committed to poverty reduction	

Millennium Development Goals (MDGs)	
Goals and Targets (from the Millennium Declaration)	Indicators for monitoring progress
<p>Target 8.C: Address the special needs of landlocked developing countries and small island developing States (through the Programme of Action for the Sustainable Development of Small Island Developing States and the outcome of the twenty-second special session of the General Assembly)</p> <p>Target 8.D: Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term</p>	<p>8.4. ODA received in landlocked developing countries as a proportion of their gross national incomes</p> <p>8.5. ODA received in small island developing States as a proportion of their gross national incomes</p> <p><u>Market access</u></p> <p>8.6. Proportion of total developed country imports (by value and excluding arms) from developing countries and least developed countries, admitted free of duty</p> <p>8.7. Average tariffs imposed by developed countries on agricultural products and textiles and clothing from developing countries</p> <p>8.8. Agricultural support estimate for OECD countries as a percentage of their gross domestic product</p> <p>8.9. Proportion of ODA provided to help build trade capacity</p> <p><u>Debt sustainability</u></p> <p>8.10. Total number of countries that have reached their HIPC decision points and number that have reached their HIPC completion points (cumulative)</p> <p>8.11. Debt relief committed under HIPC and MDRI Initiatives</p> <p>8.12. Debt service as a percentage of exports of goods and services</p>
Target 8.E: In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries	8.13. Proportion of population with access to affordable essential drugs on a sustainable basis
Target 8.F: In cooperation with the private sector, make available the benefits of new technologies, especially information and communications	<p>8.14. Telephone lines per 100 population</p> <p>8.15. Cellular subscribers per 100 population</p> <p>8.16. Internet users per 100 population</p>

*Note:* The Millennium Development Goals and targets come from the Millennium Declaration, signed by 189 countries, including 147 heads of State and Government, in September 2000 (<http://www.un.org/millennium/declaration/ares552e.htm>) and from further agreement by member states at the 2005 World Summit (Resolution adopted by the General Assembly - A/RES/60/1, <http://www.un.org/Docs/journal/asp/ws.asp?m=A/RES/60/1>). The goals and targets are interrelated and should be seen as a whole. They represent a partnership between the developed countries and the developing countries “to create an environment—at the national and global levels alike—which is conducive to development and the elimination of poverty”.

*a/* For monitoring country poverty trends, indicators based on national poverty lines should be used, where available.

*b/* The actual proportion of people living in slums is measured by a proxy, represented by the urban population living in households with at least one of the four characteristics: (a) lack of access to improved water supply; (b) lack of access to improved sanitation; (c) overcrowding (3 or more persons per room); and (d) dwellings made of non-durable material.