Statistical Commission
Thirty-seventh session
7-10 March 2006
Item 3 (k) of the provisional agenda*
Items for discussion and decision: development indicators

Report of the Friends of the Chair on Millennium Development Goals indicators

Note by the Secretary-General

In accordance with the request of the Statistical Commission at its thirty-sixth session,** the Secretary-General has the honour to transmit the present report of the Friends of the Chair on Millennium Development Goals indicators, which addresses a number of concerns related to the assessment of country capacity to produce indicators to monitor the follow-up to the United Nations Millennium Summit. The Commission is invited to review and endorse the recommendations contained herein.

Contents

I. Introduction .......................................................... 1–7 3
II. Concerns of the Friends of the Chair .............................. 8 4
III. Discussion of major concerns ............................................ 9–31 5
    A. Availability of data on indicators ................................. 9–12 5
    B. Regional perspective ............................................. 13 6
    C. Indicators ........................................................ 14–16 6
    D. Country data ..................................................... 17 6
    E. Accuracy of data on the Millennium Development Goal Indicators Database 18–22 7
    F. Metadata ........................................................ 23–24 8
    G. Imputed or significantly adjusted figures ....................... 25–27 8
    H. Regional commissions ............................................. 28 9
    I. Advisers to decision-making bodies ............................... 29–31 9
IV. Limitations to the database used for the report of the Statistics Division ........... 32–36 10
V. Metadata ............................................................. 37–41 11
VI. The way forward ...................................................... 42–52 11
VII. Concluding comments .................................................. 53–54 13
VIII. Recommendations ..................................................... 55–61 14

Annexes
    I. Summary results of the review of the data for Finland in the Millennium Development Goal Indicators Database .............................................................. 15
    II. Summary results of the review of the data for Canada in the Millennium Development Goal Indicators Database .............................................................. 17
    III. Review of the data for Cuba and Mexico in the Millennium Development Goal Indicators Database .............................................................. 18
    IV. Composition of the Friends of the Chair group on indicators ................................. 19
I. Introduction

1. At recent sessions of the United Nations Statistical Commission, countries have raised a number of concerns about Millennium Development Goals (MDG) indicators. At the thirty-sixth session of the Statistical Commission, it was agreed to form a group of Friends of the Chair to:

   (a) Define the modalities of a report “on the ability of countries to produce individual indicators, not imputations by international agencies, and on how metadata should be presented to accompany indicators on all Millennium Development Goals”;

   (b) Develop suggestions “on processes that could be used to bridge the information gaps between users and producers of Millennium Development Goals and the lack of adequate data sources”.

2. The report (E/CN.3/2006/14), prepared by the United Nations Statistics Division in consultation with the Friends of the Chair, addresses the above concerns as far as available data permits, and also makes suggestions on metadata.

3. The report of the Statistics Division has been prepared on the basis of information contained in the Millennium Development Goal Indicators Database (http://unstats.un.org/unsd/mi/mi_goals.asp: hereafter referred to as the MDG database), which is maintained by the Division, although different international agencies have responsibility for its content. The report of the Division reflects the content of the database, although the Division is aware that it does not necessarily reflect the availability of national data. This has been confirmed by analysis undertaken by several individuals who are members of the Friends of the Chair group in respect of their own countries. Some examples, for illustrative purposes, are shown in annexes I to III of the present report. Nevertheless, for the purpose of this report, the analysis undertaken by the Division should provide a useful starting point for the analysis of the state of play with regard to the MDG indicators and the capacity of countries to produce them.

4. The report of the Division is the result of painstaking effort and analysis of the MDG database. The group would like to acknowledge and show our appreciation for this effort, which it has helped to form a picture of what the state of play actually is with regard to the availability of indicators.

5. The Friends of the Chair met electronically in the preparation of this report (for a full list of the members of the Friends of the Chair, see annex IV). The report reflects the views of the Friends of the Chair, for which we have tried to reach a consensus position, although it may not reflect the views of the Chairs of the Statistical Commission or the Statistics Division, although both individuals have been consulted.

6. The report will focus on criticisms and areas for improvement, but it is important to recognize that there have been substantial improvements in recent years:

   (a) Of particular importance is the greatly improved collaboration among the international agencies. The establishment of the Inter-agency and Expert Group on Millennium Development Goal Indicators has been a positive development and should play a key role in continuing to improve the content of the MDG database;
(b) There has been a more concerted effort put on capacity-building, which has resulted in the increased availability of data on the MDG database and at the country level. However, as discussed later in the report, there are still many important information gaps;

(c) Some international agencies have initiated programmes to improve the availability of indicators at the country level. Countries have also made efforts to improve the availability of data;

(d) The Marrakesh Action Plan for Statistics is a particularly important initiative that deserves the full support of the international statistical community.

7. We have also received the minutes of the meeting of the Inter-agency and Expert Group, held in Rome from 24 to 27 October 2005, at which there seemed to be a genuine commitment to address the shortcomings of the MDG indicators. In addition, there was a commitment by all agencies to provide, from now on, data series on the basis of a new agreed format, including metadata and specifications on how the figures were obtained, whether they are based on country data and whether or not they have been adjusted. Furthermore, the Inter-agency and Expert Group has formed a committee, composed of both agencies and national statistical offices, to advise on the restructuring and redesign of the whole database and website, including the presentation of metadata and a description of the methodology for the calculation of regional and global figures. Work has already been initiated and the Statistics Division has developed a prototype of the new website.

II. Concerns of the Friends of the Chair

8. A summary of the main concerns of the group follows (a more detailed analysis is contained in section III below):

   (a) As a rough guide, meaningful analysis of an indicator at the global level would require that at least two thirds of countries (where the indicator is relevant) should be able to report at least two measures of it during the time period covered (1990-2005) in order to get an idea of trend. Only 33 per cent of indicators satisfy this criteria (that is, only 33 per cent of indicators had at least two data points available for them in at least two thirds of the countries, this includes country-modified data);

   (b) For some regions, the situation is even worse. For developing countries, the target of the MDG initiatives, it is generally worse;

   (c) Some indicators are particularly poorly reported;

   (d) The focus of the *The Millennium Development Goals Report 2005* was at the global level and, to a lesser extent, the regional level. However, for the Millennium Project to be successful, MDGs have to be achieved at the country level. This requires reliable data at the country level;

   (e) It appears from case studies of several of the countries represented in the Friends of the Chair group that there are more data available in the countries than is suggested by the MDG database (see annexes I-III). The annexes also show some substantial differences between data held by countries and that reported by international agencies;
Although considerable effort went into providing metadata to support the MDG database, it fell well short of what is desirable. There are two main problems:

(i) Metadata is the responsibility of the international agency that provides the data. The quality of this metadata varies considerably across agencies and, in some cases, is almost useless;

(ii) For a large proportion of the indicators, there is no meaningful information provided about how the published data were derived. Since a basic yardstick of any scientific work must be reproducibility, such lack of transparency is a serious source of concern;

(g) There are serious concerns about the use of imputed or significantly adjusted figures for countries. Because these figures are presented in a United Nations database, they are regarded by many as having high integrity, yet in many cases they do not reflect reality;

(h) Despite the increasing importance of statistics and the push towards evidence-based decision-making for assessing the effectiveness of programmes, the statistical activities of several regional commissions have been downgraded since the initiation of the MDG initiative. The case of the Economic and Social Commission for Asia and the Pacific is one recent example. Yet the regional commissions should play an important role in statistical development within a region, as they do in the case of the Economic Commission for Europe;

(i) Not unrelated to this is the apparent lack of understanding of many advisers to United Nations decision-making bodies of the importance of accurate statistics to the making of effective international policy. This is clearly detrimental to potential measures designed to address statistical capacity problems at the country level.

III. Discussion of major concerns

A. Availability of data on indicators

9. The Statistics Division has produced tables (see E/CN.3/2006/14, tables 3 and 4), showing both the availability of data on indicators and whether two or more observations exist since 1990 to enable assessment of trends.

10. There are some important observations to make. First only 33 per cent of indicators have two or more data points in at least two thirds (or 67 per cent) of the relevant countries. National statistical offices would find a response rate of 67 per cent to be barely acceptable. Many of the global and regional assessments are therefore at risk of non-response bias.

11. Furthermore this level of “response rate” is based on the assumption that country-modified data can be treated as country data, although some countries will argue that country-modified data is not accurate at least for some indicators. Another 10 per cent of indicators are available for at least two thirds of countries, but only have one observation, which is clearly inadequate to assess trends.

12. The information presented in annexes I to III of the report of the Statistics Division show that more data and more up-to-date data might be available than
suggested by the MDG database. Coordination and links with national Governments will need to be improved if the available data is to be fully utilized. This is discussed further below.

B. Regional perspective

13. The tables produced by the Statistics Division show that the level of reporting for indicators is particularly bad for some subregions and tends to be worse for the smaller countries. The data should be used to help develop strategies for improving statistical capacity at the regional or subregional levels. However, for small countries in particular, the implicit overheads must be taken into account. The focus should be on those indicators that are most relevant to their circumstances. A “not applicable” categorization may well be sensible for some of the less relevant indicators for smaller countries.

C. Indicators

14. The indicators for which data is available at the country level for a relatively small number of countries, or in some cases no countries, are:

- Ratio of area protected to maintain biological diversity to surface areas
- Proportion of households with access to secure tenure
- Proportion of population with access to affordable drugs on a sustainable basis.

15. These indicators should either be deleted or amended to make them more amenable to data collection, or, alternatively, special effort should be put into setting up data collections to provide the information.

16. As a general rule, when making recommendations about “good indicators”, two main criteria should be kept in mind:

   (a) Favour those indicators that are closely related to existing data collection programmes, especially in developing countries; ad hoc indicator demand should not interfere with building up a sound basic statistical system in a country;

   (b) Favour those indicators that are well established, that is, conceptually clear, with sound methodologies and metadata.

In assessing the capability of a country’s statistical system to measure MDG indicators, one should examine quality as well as availability, a point which has been emphasized by several members of the Friends of the Chair group, who are concerned about the quality of the indicators.

D. Country data

17. There are many actors with influence on the progress towards the achievement of the MDGs, but Governments clearly have primary responsibility. As a consequence, effective monitoring of progress towards achievement of MDGs is first and foremost dependent on the availability of national or country-level data.
Great importance is therefore attached to country capacity in providing, and standing by, country-level MDG indicators. While it is understandable that the 2005 MDG report focused on the global situation, with some regional analysis, it is nonetheless clear that the necessary statistical information is available for many countries. We note that national reports have now been produced for 149 countries.

E. Accuracy of data on the Millennium Development Goal Indicators Database

18. For most of the MDGs, more data is generally available at the national level, and possibly used in MDG country reports, than is presented in the MDG database. There are a number of contributing reasons, including the fact that countries find that the mechanism of reporting to international agencies is not always effective: sometimes they do not respond to requests for information; and sometimes they are not even asked. This is compounded by lack of coordination in many countries between the national statistical office and the statistical units associated with various ministries (for example, health and education). Furthermore, improvements are needed to the modalities that the international agencies use to consult with national statistical systems to verify estimated figures.

19. Clearly, reporting mechanisms between national statistical systems and international agencies need to be improved, including much better coordination within national statistical systems than that which currently pertains. International agencies could use their leverage to help make this happen. Should national statistical offices be given greater responsibility for the coordination of data requests associated with the MDGs, which would make their role as the responsible bodies within countries much clearer? The Division would argue that this should be the case.

20. At its meeting in October, the Inter-agency and Expert Group agreed that, as a first step, all partner agencies would provide a brief description of the mechanisms they have in place to gather data from countries, their methods to ensure compatibility across countries to fill in data gaps and modalities of consultation with national statistical authorities. This work needs to be taken to a sensible conclusion. The lack of coordination between the international agencies and countries is a major factor in the shortcomings of the MDG database.

21. A “business process” approach should be taken to resolve this problem. As a first step, the fundamental constraints, problems and obstacles being faced in providing MDG indicators must be understood. This needs to be done from the perspective of:

(a) The Statistics Division as the custodian of the MDG database;
(b) The international agencies (noting that the Inter-agency and Expert Group has already commissioned work along these lines);
(c) The providers of indicator information within countries;
(d) The national statistical offices, which should be important providers of information on indicators as well as having a coordination role vis-à-vis the providers of statistics within countries.
22. The nature of this problem must be understood before strategies are developed to resolve it. One key strategy should be to develop a business process map for the collection of MDG indicators. The use of a business system analyst to assist with this work is highly recommended. It is the representatives of developing countries among the Friends of the Chair group who feel most strongly about the need for a revised and more systematic approach to the collection of data on MDG indicators.

F. Metadata

23. There are a number of different elements to metadata which are discussed in section V below. Three essential improvements are:

(a) International agencies need to improve their description of the manner in which they adjust current data in order to resolve any confusion, since country-level data on the MDG database is used, and assumed to be correct, by many users. The strong preference is to use data collected by individual countries wherever possible;

(b) In cases where international agencies make country-level estimates in the absence of country data, the method used should be fully documented;

(c) The implication of the limitations of the data in the MDG database should be articulated and prominently highlighted, both in the introduction and in the executive summary, of future reports on progress in achieving MDGs.

24. The performance of the international agencies in providing metadata varies considerably, with some reporting valuable statistics while others have definite plans to improve their metadata. The situation tends to be worse in the case of agencies where statistical activities are not well developed. Many national statistical offices run client satisfaction surveys as a routine way of getting feedback on the quality of their services. A similar process should be put in place by the Statistics Division in order to obtain feedback on the MDG database, particularly in respect of metadata.

G. Imputed or significantly adjusted figures

25. What is particularly worrying for many countries is the extent of significantly modified or imputed data. This issue was tabled at the thirty-sixth session of the Statistical Commission, at which South Africa made a statement highlighting its concern. It has been raised repeatedly at international conferences by many countries.

26. Two examples of the nature of this problem are provided here:

(a) For Finland, indicator 32 (on slum dwellers) in the MDG database shows a percentage of 5.6 per cent, which is much higher than the actual situation in the country. Statistics Finland investigated how the figures were derived and found that it was an imputed figure based on an estimate for Europe as a whole, including countries with considerably lower per capita gross domestic product (GDP) than Finland;

(b) For South Africa, HIV prevalence rates were estimated by Statistics South Africa at 15.6 per cent for 2002. This was based on an extensive study involving external demographers. The corresponding figure from international
agencies was 6.5 per cent higher. Statistics South Africa believes that there is no compelling evidence to suggest that its estimate should be revised.

In the second example, the differences between the national and international estimates have been subject to public debate.

27. Oftentimes, the reasons for the differences in data are not sufficiently transparent. This situation needs to be addressed. This is best done through annotations to indicators with supporting metadata. Nevertheless, the question of whether data should be imputed to the extent that it is remains. Imputed data does not help analysis at the country level. For the purpose of monitoring progress against MDGs at the global and regional levels, the key is to have sufficient representative countries rather than data for every country. More meaningful analysis would be obtained by having more reliable data for fewer countries, rather than imputing data using dubious methods. The Friends of the Chair recommend that there be no imputation of data at the country level unless the methodology has been reviewed and approved by an international panel of experts.

H. Regional commissions

28. Implementation of large global programmes requires regional involvement to make them manageable. Since there is greater homogeneity of countries at the regional level, or at least at the subregional level, for most of the regions, it is possible to make activities relevant to regional conditions. The regional commissions and associated subregional bodies have historically played a pivotal role in the implementation of global programmes. They have hosted seminars, workshops and meetings. They have developed training programmes and have assisted with the preparation of guidelines that are relevant to the region. This has been done with the guidance of the countries of the region, in particular in identifying their most important needs. In addition, several regional organizations have initiated work to improve the reliability of indicators within their regions. However, with the notable exception of the Economic Commission for Europe, there seems to be a trend towards weakening the statistical activities of the regional commissions. At its thirty-third session in 2002, the Statistical Commission expressed concern about the reduced importance being attributed to statistics in many regions. Unfortunately, the situation has worsened since that time. Such developments will not help in the coordination of efforts required to support MDGs at the global, regional and national levels. One member of the Friends of the Chair group stated that it was difficult to get more support on statistical activities from Governments when regional advocacy on statistical development has been reduced.

I. Advisers to decision-making bodies

29. It is a fact that the decision-making bodies of the United Nations have not taken the shortcomings presented by statistical experts seriously enough. Decisions relating to future international statistical activities are influenced by the recommendations of advisers who often do not fully understand the importance of the availability of factual information for effective decision-making. It is regrettable that at the 2005 United Nations World Summit on the MDGs, shortcomings in
statistics did not warrant a mention, even though a number of directors of national statistical offices provided strong briefings.

30. Advisers will continue to play an important role in international decision-making bodies, and communication with these important intermediaries should be improved so that they can assist in better developing the case for statistical development with the international bodies.

31. With respect to individual international agencies, the message is mixed. Some agencies regard statistical development as a high priority and have devoted considerable effort to their development, with genuine interest in progress by their executives. There are others, however, who clearly regard reliable statistics as a low priority. In the absence of reliable statistical information, decision-making tends to be based on advocacy and anecdote.

IV. Limitations to the database used for the report of the Statistics Division

32. As mentioned above, the analysis carried out by the Statistics Division has some shortcomings, although it was the best that could be done in the time available. The main purpose of the present report is to summarize the key messages arising from the analysis, but it might also be useful to summarize our key concerns about its limitations.

33. Our first concern is that selected country level studies have shown that the MDG database does not accurately reflect the availability of data at country level (see annexes I to III for specific details).

34. Our second concern was that for the country-modified estimates, it was not possible to distinguish the “slightly modified” from the “significantly modified” estimates of indicators. We recognize that some modification may be necessary to ensure international comparability, but if country-level data has to be significantly modified, it could indicate a concern about capacity, methodological development and so forth. From a country perspective, differences can lead to a loss of confidence in the figures produced by national statistical offices. It may also result in loss of confidence in the statistical work of the international agency.

35. Our third concern is that the tables do not distinguish between indicators based on surveys conducted by national statistical offices (perhaps with funding assistance) or those conducted by international agencies. In the latter case, countries may not have the statistical capacity that is implied by referring to it as “country” data.

36. Our fourth concern was that it was not possible to accurately distinguish between situations where: (a) country data was not available for the indicators; and (b) the indicator was not relevant owing to the policy of a particular country. To make this distinction, an algorithm was developed by the Statistics Division based on whether an international agency considered a country policy relevant for its statistical work or not. If not, data was regarded as not applicable (NA). Clearly this dissection has weaknesses and it has been decided to collect this information more directly in future.
V. Metadata

37. The development of metadata is a large and complex task. In the case of the MDG database, there is the advantage of having some experience of what worked well and not so well. Upgrading the database should still be regarded as a significant project management task with appropriate governance arrangements in place. The Statistics Division should be regarded as the leader in this work but it should seriously consider the engagement of an international advisory panel to provide assistance.

38. Metadata should be prepared according to an agreed framework giving a proper description of what constitutes such data. A framework could be based on the following structure.

- Discovery metadata: in order to support searches for the availability of the data. Standards such as the “Dublin Core metadata initiative” already exist
- Quality metadata: in order to enable users of the data to judge its fitness for purpose. A key element is a description of how each data point was created
- Metadata about meaning: to understand content, concepts and definitions. The International Organization for Standardization (ISO) standards exist.

The experience of the current system is also very relevant.

39. Recent steps that have been taken to revise the MDG website and database are described in the report of the Statistics Division (E/CN.3/2006/14, annex III). This is a very important initiative and has our full support. We suggest, however, that the development team seek further client feedback before taking this much further. The offices of the Friends of the Chair may be a good source of feedback. Many members of the group have had experience exploring the metadata as a result of this exercise.

40. There is also need for the systems and documentation to support the metadata components. This is particularly important given that a devolved model is being used for creating and storing metadata.

41. The proposed system has to be populated and updated as to meet changing circumstances. There should be a review/monitoring mechanism. Feedback is important, particularly in instances where the metadata has significant deficiencies.

VI. The way forward

42. One of the key problems is the lack of awareness among many users of the extent of the shortcomings of the MDG database and the importance of rectifying these shortcomings for effective policy analysis. The words in *The Millennium Development Goals Report 2005* were somewhat muted and didn’t get much attention:

“Presenting aggregate figures for all regions also obscures another reality: the lack, in many parts of the developing world, of adequate data to assess national trends and to inform and monitor the implementation of development policies.”
Which is not surprising since the next paragraph implied the international statistical community had the problem in hand:

“The international statistical community is well aware of these shortcomings and is supporting efforts to improve the production of data at the national level.”

43. It is also of relevance that, despite strong briefings from several national statistical offices, the potentially misleading conclusions from having inadequate information on MDG indicators did not rate a mention at the 2005 World Summit.

44. There is a need for the international community, Member States and their advisers to better understand the serious shortcomings in MDG indicators and the potential impact. They also need to understand where effort can be best deployed to redress this situation. This may be best achieved by a resolution of the Statistical Commission and the Friends of the Chair recommend that a resolution be drafted for consideration by the thirty-seventh session. Related to this is the need to considerably improve the dialogue between the users and producers of MDG information.

45. Many of the initiatives to improve MDG indicators have already been initiated and have been identified in the Marrakesh Action Plan for Statistics, which the group supports.

46. The initiatives we think are very important are:

- The 2010 round of population censuses
- Assistance to countries in preparing national statistical development strategies and getting support for these strategies from their own Governments
- Developing the capacity of the International Household Survey Network to share knowledge across countries
- Increased financing for statistical capacity-building.

These initiatives, if successful, will considerably enhance statistical capacity.

47. Some focus should be placed on the study of specific indicators, particularly where there appear to have been problems. There have been studies by some regional commissions of the ability of countries to provide reliable data on MDG indicators (for example, the Economic Commission for Europe). We would encourage other regional commissions to do likewise. This can be fed into the deliberations of the Inter-agency and Expert Group and used as part of the process of determining the best way forward for particular indicators.

48. We are aware of specific initiatives to upgrade sets of indicators. One such programme is the Literacy Assessment and Monitoring Programme of the United Nations Educational, Scientific and Cultural Organization (UNESCO). The programme consists of a household survey to be designed by the UNESCO Institute for Statistics to assess literacy levels. This type of initiative should be applauded, but there is low awareness among national statistical offices of this and other programmes to improve MDG indicators. In addition, we are not sure how much country participation there has been in the development of these programmes. We propose that the Inter-agency and Expert Group document the list of international programmes to improve indicators. We also propose that there be some consultation
with countries on the extent to which they want to be involved in these programmes, and the role of national statistical offices. The Friends of the Chair group, if its mandate were to be extended, could be a sounding board for this purpose.

49. We strongly recommend that the Inter-agency and Expert Group agree on an upgraded reporting system to improve the standard of reporting of countries to the international agencies. The Statistics Division should take the lead in developing the reporting system. We are pleased that the Inter-agency and Expert Group, at its meeting in October 2005, agreed to take steps in this direction. Communication between international agencies and countries, and within countries, seems to be a major source of concern.

50. We also strongly urge that the standard of metadata should be improved. The Statistics Division should take the lead in developing the framework and standards for such data, including the systems and protocols to capture the data. The Division should provide necessary training to ensure completion of this task, which will not be possible without the cooperation of international agencies. Although it is pleasing to note that many international agencies are making deliberate steps to improve the metadata to support MDG indicators, some are lagging well behind. Pressure needs to be put on these international agencies to ensure they bring their metadata up to standard.

51. There are a number of initiatives in place, supported by the Inter-agency and Expert Group, to improve the MDG database managed by the Statistics Division. We support these initiatives. The key is accurate content — both indicators and supporting metadata. Although the availability of indicators for country are less than desirable, we were surprised at the extent to which the MDG database did not accurately capture data that already exists at the country level. There needs to be a better understanding of why this is the case prior to developing processes to improve the situation.

52. One issue that has caused much contention at recent sessions of the Statistical Commission is the indicators associated with Goal 8. Although many of the indicators associated with Goal 8 are completed quite well, the availability of data and measurement issues on several of the indicators (for example tariffs, subsidies, and official development assistance) are not really statistical issues. The sessions of the Statistical Commission, a technical not a political forum, are not the proper place for a debate on these matters. The group proposes that the Statistical Commission focus on improving those indicators for which it has real expertise.

VII. Concluding comments

53. Despite improved collaboration among international agencies and improvement in the data available to support indicators, the quality and availability of data is not yet sufficient to reliably monitor progress in the achievement of MDGs. We are particularly concerned by what we view as grossly inadequate awareness of the shortcomings of the MDG database by its main users. Such awareness is an essential prerequisite for effective remedies, and without effective remedies we will not be able to assess the extent of progress, or the lack of it, towards the realization of the Goals.
54. We have suggested some ways forward, most notably in section III.F above, and propose that the Statistical Commission debate these ideas at its thirty-seventh session in March 2006.

VIII. Recommendations

55. There is a need for the international community, individual countries and their advisers to better understand the serious shortcomings in MDG indicators. To improve their awareness, it is recommended that a resolution be drafted for consideration at the thirty-seventh session of the Statistical Commission (see paras. 42-44).

56. A number of initiatives to improve MDG indicators have been outlined in the Marrakesh Action Plan for Statistics. We recommend strong international and national support for its successful implementation (see para. 45).

57. Owing to communication problems between international agencies and countries, and within countries themselves, the MDG database does not accurately reflect the availability of national data. We recommend that a business process analysis, led by the Statistics Division, be undertaken to assist with the design and development of strategies to improve the collection of data for the MDG database (see paras. 21 and 22, 49 and 51).

58. The metadata supporting the MDG database is of unacceptably poor quality. We recommend strong support for continuation of the initiative of the Inter-agency and Expert Group, led by the Statistics Division, to improve the availability and quality of metadata supporting the MDG database (see para. 51).

59. There are more problems with some indicators than others. There should be a specification of the programmes aimed to improve these indicators. Countries, or at least a representative set of countries, should be consulted on the nature of these programmes (see paras. 47 and 48).

60. Imputed data is cause of major concern to most countries. We recommend that there be no imputation of data at the country level unless the methodology has been reviewed and approved by an international panel of experts (see para. 27).

61. Client satisfaction surveys should be introduced to provide regular feedback on the quality of the data and metadata (see para. 24).
Annex I

Summary results of the review of the data for Finland in the Millennium Development Goal Indicators Database

General comments

• It was not always easy to find out which series in the MDG Indicators Database correspond to different indicators in the tables produced by the Statistics Division. In addition, for the outside user of the database, the large number of series can be confusing. It may be difficult to notice what are the actual MDG series. Even in this summary, 61 series of indicators are presented.

• The use of the code “na” in the tables is not correct. We are accustomed to thinking that “na” is an abbreviation of “not available”, and for that reason we would prefer that some other code be used for “not relevant”.

The summary of the analysis of data accuracy and data origin

• There are 25 indicators with the code “C” (= country data) in table II. There are serious errors and/or incomplete data in 7 of them (= 28%). Indicators with erratic/incomplete data include those for child mortality and education enrolment. The definition for indicator 23b (= Tuberculosis) is unclear, the type of tuberculosis should be defined. An alternative way to define the indicator 13 (= Under five mortality rate ...) would be preferable: the “under five”… rate should be replaced by “1-4 years” or by “28 days to 4 years”.

• There are 13 indicators with the code “CM” (= country data modified) in table II. At least in two of them there are errors and incomplete data (= Maternal mortality rate and Tuberculosis death rate ). Also the data for indicator 3 (= Poorest quintile’s share ...) should be shown as C instead of CM. “The two malaria indicators” with codes CM are not at all relevant in Finland. CM should be replaced by “na” (or with a more appropriate code for non-relevancy of the data).

• There are 3 indicators with the code “E” (= estimated by international agencies) in table II. They are all incorrect in the case of Finland. Indicators 17 (= Proportion of births attended by skilled health …) and 32 (“Slums”…) are not at all relevant in Finland. Indicator 48a (= Personal computers …) should be shown as CM.

• There are 13 indicators with the code “.” (= no country data) in table II. There are, however, data available, for example for literacy of youth in Finland (= indicators 8 and 10), but in most cases the data marked in this category are not at all relevant in Finland. That is case with data for indicator 4 (= Prevalence of underweight …) and with data for most of the AIDS/HIV indicators and all the four malaria indicators. The data should be marked as “na” (or with a more appropriate code for non-relevancy of the data).
• There are 7 indicators marked with the code “na” (= not applicable) in table II. Actually the figure for not relevant indicators should be at least 15 (see the previous item).

• There are also some cases where the sources of information or methodology used are not well enough known. For example, indicator 29 (= proportion of population using solid fuels) and indicator 9 (= ratio of girls to boys in ... education) were difficult to verify because of the incomplete source or methodological information.
An excellent review of the data for Canada in the Millennium Development Goal Indicators Database has been conducted. The accuracy of the data was assessed by comparing the information in the United Nations Millennium Development Goal Indicators Database with our own sources.

- Of the data marked “C” (country data), about one third had serious differences from our own sources: either in the actual data or in the number of available data points. For example, indicator No. 13 (under-five mortality rate) is shown as having 4 country data points ranging between 7 and 9; in fact, we have 12 points (one per year) and they range between 0.2 and 0.3 per 1,000 population.

- The data shown as “CM” (country data modified) also show about one third being seriously wrong. For example, the United Nations database shows three data points for indicator No. 16 (maternal mortality ratio) whereas we have data for every year (13 years). And the data entered for this indicator show this indicator to be 6 for each of the three years; whereas the correct rate for the three years in the United Nations database are 2.5, 4.5, and 3.4, respectively. Incidentally, it is not clear why this indicator is shown as “CM” when in fact it should be “C”.

- For about a quarter of the indicators shown as “.” (no country data), we do have data. For example, indicator No. 10 (ratio of literate women to men) is shown as having no data for Canada; in fact, we have at least three censuses within this period from which indirect data could be derived (highest grade of school completed). Furthermore, we participated in two rounds of the International Literacy Survey, from which direct measures of literacy can be derived.

- There are three indicators marked as “E” (estimated by international agencies). Again one of these (one third) is incorrect. For several of the years involved, we have direct measures of the number of households with computers at home, as well as the number of persons with access to computers at work.

- In a number of cases we could not verify the information because the source of the information was not known.

In summary, of the instances that we could verify, we found serious discrepancies in at least one third of the entries. I emphasize “serious”, because in the case of lesser discrepancies we credited the information as being correct.
Annex III

Review of the data for Cuba and Mexico in the Millennium Development Goal Indicators Database

Cuba

• Data was available at country level for six indicators, although the database indicated that it was estimated or not available.
• For nearly all indicators, there were more time points than suggested.
• For many indicators, there were more recent country level data available than indicated in the MDG database.
• For eight indicators, the correct description should be CM rather than C.
• For one indicator, the correct description should be E rather than C.

Mexico

• Data was available at country level for four indicators, although the database indicated it was estimated or not available.
• For nearly all indicators, there were more time points than suggested.
• For one indicator, the correct description should be not available rather than C.
Annex IV

**Composition of the Friends of the Chair group on indicators**

<table>
<thead>
<tr>
<th>Country</th>
<th>Name</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Dennis Trewin (Convenor)</td>
<td></td>
</tr>
<tr>
<td>Canada</td>
<td>Ivan P. Fellegi</td>
<td></td>
</tr>
<tr>
<td>Chile</td>
<td>Maximo Aguilera Reyes</td>
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<td>Cuba</td>
<td>Oscar Mederos</td>
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<tr>
<td>Finland</td>
<td>Heli Jeskanen-Sundstrom</td>
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<tr>
<td>Ghana</td>
<td>Grace Bediako</td>
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<tr>
<td>Iceland</td>
<td>Hallgrimur Snorrason</td>
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<tr>
<td>Italy</td>
<td>Luigi Biggieri</td>
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<tr>
<td>Jamaica</td>
<td>Sonia Jackson</td>
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<tr>
<td>Mexico</td>
<td>Gilberto Calvillo Vives</td>
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<td>Russian Federation</td>
<td>Vladimir Sokolin</td>
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<td>South Africa</td>
<td>Pali Lehohla</td>
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<td>Thailand</td>
<td>Sue Lo-Utai</td>
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</tr>
<tr>
<td>United States of America</td>
<td>Katherine Wallman</td>
<td></td>
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