

**United Nations Economic Commission for Africa  
African Centre for Statistics**

**Toward the Improvement of MDG Reporting: Assessment of  
data discrepancies between national and international sources  
and possible solutions: The African Region Report**

(Contribution to the RCs' Report on MDG monitoring)

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## 1. Introduction

This report builds upon two major activities namely a workshop and two case studies in African countries. The first activity consisted of a *Workshop on Coordination of Reporting Mechanisms and Data Discrepancies in MDG Monitoring* held in Kampala, Uganda, from 05 to 08 May 2008 and organized by the UNSD African Centre for Statistics (ACS) and the Southern African Development Community (SADC) Secretariat. The workshop was meant to identify potential sources of discrepancies between national data sources and international ones in MDG monitoring and to explore ways to reconcile them. In addition to SADC member states (14 countries), it was also attended by representatives from other African countries including Cameroon, Ghana and Uganda, and some international organizations including the World Bank, The United Nations Children's Fund (UNICEF), the World Health Organization (WHO), and the UNESCO Institute for Statistics (UIS). The second activity consisted of an in-depth review of data availability for each MDG indicator at the national level as compared with the information available in the global MDG database; identification of potential sources of discrepancies between the two sources; and proposal for potential remedial measures for the conciliation of national versus international data on MDGs. This was done in two countries: Ethiopia and Uganda. Originally, ACS had planned to cover 4 countries. In the event, available resources would not permit.

In general, the following major sources of discrepancies between national and international sources were identified: Definitional problems, methodological issues, lack of recent data at international level, lack of coordination at national level, population estimates used at the international level are not the same as those at the NSOs, lack of transparency in the estimation and modelling procedures by international organizations, delay in publishing results by NSOs, and lack of coordination within and among international agencies. Presented below are the main findings of the two case studies with respect to addressing data discrepancies between national and international sources.

## 2. Discrepancy issues between national and international data

### 2.1. Discrepancies

It is worth mentioning that data discrepancies occur in many African countries in almost the same set of MDG indicators (2.3, 3.1, 4.1-4.3, 5.1, 6.1, 6.2, 8.14, 8.16); 4 of these (2.3, 5.1, 6.1, and 6.2) having their roots mainly in model-based estimates<sup>1</sup>. These discrepancies between national and international data sources might emerge from a number of factors including the following:

- **Definitional and specifications problems:** Quite a number of indicators can be variously interpreted namely indicators 3.2, 5.2, 6.3, 6.5, 6.8, 7.8, 7.9 and 8.13. For example, on "*improved drinking water*" in indicator 7.8 may lead to subjective interpretation and the availability may vary significantly over seasons. The same holds for Indicator 7.9, which contains the phrase "*improved sanitation facility*". One has to be clear on the definitions so that the terms do not give rise to different interpretations in different countries. These two indicators are among those showing discrepancies with UNSD data.
- **Inadequacy of estimates from sample surveys:** Some survey estimates may not be accurate enough to serve a useful purpose for international comparisons or for monitoring progress towards MDGs. Many non-statisticians are often tempted to simply grab survey estimates and use them without

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<sup>1</sup> See E/CN.3/2008/29: Report of the Secretary General on the Indicators for Monitoring the Millennium Development Goals.

a critical examination of the scientific soundness of the data collection and processing; still fewer may ever look at the relative errors of estimates. For example, in Ethiopia's DHS 2005, estimates for "*HIV prevalence ratio*" and "*condom use at last high-risk sex*" had relative errors which were larger than 11%, and such errors suggest that the estimates need to be used with considerable caution. Indeed, survey estimates may be far from useful for comparison for various reasons like large sampling and non-sampling errors, lack of comparability of methodology over time, poor coverage and changes in study populations.

- **Inadequacy of coverage:** MDG indicators can have more credible estimates from sample surveys or from administrative records only when the former are well designed and implemented, and the latter ensure full coverage and good quality. Unfortunately, good sample surveys or records are often too expensive for most countries in developing regions. In fact, some regions are inaccessible and sizable populations are nomadic, as in Ethiopia. Hence, there is a tendency for national and international agencies to resort to short cuts to fill data gaps. Making adjustments for under-coverage may not correct the problem. This practice appears to be common in the absence of suitable sample surveys, or a credible vital registration system, or other reliable alternatives. Further, since surveys are done every 3 to 5 years, there may be a strong tendency, both in-country, at UN agencies and at other international organizations, to resort to expert opinion or some available administrative statistics or international sources to arrive at national and/or sub-national estimates. When this happens, the nature of the study population may change significantly, and the estimation methodology may also be suspicious. When estimates are so derived, they may then be inaccurate, and far from credible.
- **The reference Year:** The reference period for administrative statistics is often the financial year, and adjustments may then have to be made to get estimates for a calendar year. Such adjustments may introduce errors.
- **Model-based Estimates:** Model-based estimates are reported to be common for several indicators in Goals 1, 5, 6 and 7. These estimates are derived (See E/CN.3/2008/29) by a number of UN agencies for several indicators, and their estimates are invariably used in important decision-making. The relevance of the models to developing regions and the quality of the inputs for the models are always of some concern.
- **Differences in methodology:** It is also possible for study populations and questionnaires used in one survey to be different from those in another, and the survey design, including the estimation technique, may also change over time for various valid reasons. In addition, the nature of parameters may also change over time, and that is also evidenced in the MDG indicators revised since 2007. Hence, discrepancies may arise over time both within country and between estimates of international agencies that may also find it proper to change their methods and data processing procedures over time. Such practices may breed discrepancies. For example, a discrepancy is likely to arise as a result of the perception of "primary" and "secondary" education in Goal 2 and in Indicator 3.1. In official publications by the Ministries of Education, "primary" is understood differently from that of being grades 1 to 5; Uganda's "Primary" is from P1 to P7, and that of Ethiopia goes from Grade 1 to Grade 8.
- **Differences in population estimates:** Several MDG indicators require the use of population estimates for inter-census periods, and these are invariably made using various assumptions about population growth based on further assumptions regarding trends in birth rate, death rate and net migration. UN agencies often use such estimates made either by the UN Population Division or by United Nations

Population Fund (UNFPA). In the absence of data from civil registration, such assumptions may be too strong. On the other hand, institutions within the country often use estimates established by the NSOs. Hence, different sets of assumptions are bound to lead to discrepancies between in-country estimates and those in the UNSD database in those MDG parameters that make use of inter-census population estimates.

## 2.2. Data gaps

If data had been reported and recorded in the UNSD database for the 48 indicators (out of the current set of 60) excluding 12 on global partnership in Goal 8, then there would have been 384 data-points in all for the period 2000-2007. However, it turns out that only 24 % and 32% of these are available in the UNSD database, and 36 % and 34% have been collected from official government reports during this study in Ethiopia and Uganda respectively. The latter percentage can only be the lowest possible since there may exist other sources that have not been accessed during the study mission in the two countries. In addition, those in the UNSD database are likely to include model-based estimates. It clearly appeared in the discussions from the workshop as well during the in-depth review of the two countries that the UNSD database does not have all the data that are available in countries.

While several factors might contribute to the observed data gaps, special attention should be paid to the following as far the African region is concerned:

- **Frequency of the updates:** A close examination of the two country case studies shows that only 30 indicators have been updated in the UNSD database up to April 2008, of these 28 were updated in August 2007 or earlier, and only two were updated early in 2008. Further, out of the 30 indicators updated so far, only four have data for 2006, and the rest have data for years before 2006.
- **Adjustments in the MDG framework:** The ages of the indicators may have also been a factor in the data gaps. Out of the 60 indicators in use today, since early 2007, excluding 12 indicators that deal with global partnership in Goal 8, there are 15 new indicators, 13 modified since 2007, and only 20 that have been around since before 2007. Hence, one cannot expect much for the 28 indicators, which are either new or modified since 2007.
- **National priorities:** There may have been lack of in-country capacity to collect data on account of cost, and some indicators like CO<sub>2</sub> emission and ozone depletion in Goal 7 may not be quite in line with national priorities of many African countries.
- **Periodicity of sample surveys:** Several indicators are dependent on sample surveys and such surveys are usually carried out every 3 to 5 years so that inter-survey and inter-census periods tend to lead to data gaps. Such problems are observed in the data from Ethiopia and Uganda as well as in many other African countries.

## 3. Opportunities at the regional level

At the African level, activities/programs aimed at enhancing the capacities of member countries to produce and disseminate improved, accurate and comparable MDG indicators and reduce data discrepancies between national and international data could benefit from the existence following initiatives:

### ***The Reference Regional Strategic Framework for Statistical Capacity Building in Africa (RRSF)***

To overcome the shortcomings of past efforts aimed at enhancing statistical capacity in Africa, the major sponsors of the Forum on African Statistical Development (FASDEV) namely the African Development Bank (AfDB), the Partnership in Statistics for Development in the 21<sup>st</sup> Century (PARIS21), and the World Bank, agreed to launch the production of the RRSF under the leadership of the ECA, expected to create synergies, avoid duplication of effort and lead to sustainable capacity for statistical development in Africa.

The RRSF is a broad framework rather than a specific set of activities and policy prescriptions, recognizing that most actions will need to take place at the national level and that countries face different problems and have different priorities. The RRSF, whose overall objective is to strengthen national statistical systems, is built around three themes: meeting users needs; improving management of statistical systems and ensuring the sustainability and irreversibility of statistical development. The National Strategies for the Development of Statistics (NSDS) are the backbone of the RRSF at the national level.

Following the meeting of the representatives of the AfDB, the UNECA, the African Union Commission (AUC) and the African Capacity Building Foundation (ACBF) held in Tunis, Tunisia, from 23 to 25 September, 2007 to discuss the coordination of statistical capacity building work in Africa, it was decided that an African Statistical Coordination Committee (ASCC) be established with the objective to lead the coordination of statistical activities in Africa in the framework of the RRSF.

The production of improved, accurate and comparable MDG indicators will benefit a lot from the activities under the RRSF. In fact, a well-designed NSDS does include coordination of statistical activities, up-to-date legal frameworks, legally-constituted Producer-Producer and Producer-User Committees etc, the latter being key elements for enhancing data quality, which facilitate data production and dissemination and reducing discrepancies between national and international data sources on MDGs.

### ***The Statistical Commission for Africa***

Following the re-establishment of the Statistics Division at ECA, it was imperative to put in place a new subsidiary body specifically devoted to statistics and statistical development on the continent. The Conference of African Ministers of Finance, Planning, and Economic Development (CoM) held in Addis Ababa from 2 to 3 April 2007 endorsed the creation of the subsidiary body in charge of statistics: the Statistical Commission for Africa (StatCom-Africa). The latter has been established as the apex entity in statistical development on the continent. It provides a forum for discussions and decisions on all aspects of statistical development, which are of interest to its members within the framework of the policies and procedures of the United Nations and subject to the general supervision of the CoM.

During its first meeting, StatCom-Africa set up a number of working groups according to priority needs in statistical development on the continent including one on MDG monitoring. The main objective of the group is to support StaCom-Africa in its quest to address challenges facing African countries on MDGs monitoring. Details on this Working Group are presented below.

### ***The MDG Africa Working Group***

There have been a lot of concerns about the capacity of Africa as a region in reaching many of the MDGs by 2015. Taking cognizance of this, the UN Secretary General established in 2007 the MDG Africa Steering Group and associated Working Group too identify practical steps and mechanisms for coordinated MDG efforts, concretize aid commitments and improve aid predictability and support MDG operationalization at country level. The MDG Africa Working Group has established 7 technical thematic groups to inform the work of the Steering Group. One of the thematic groups deals with statistics and is led by ECA and the World Bank and comprises the IMF, AfDB, FAO, Afristat, OECD/DAC, UN Statistics Division, and the United Nations Development Programme (UNDP). The objectives of the Statistics Cluster of the MDG Africa Working Group include:

- Assist countries build statistical capacity on a sustainable and scaled-up basis within the RRSF to collect, manage and use statistics for evidence-based policy and decision-making and tracking progress made towards the achievement of development goals including the MDGs;
- Accelerate the design and implementation of the National NSDS and ensuring that they cover all sectors and are mainstreamed into national policy, development and budget processes; and
- Strengthen data systems, to increase the quantity and quality of development statistics and their use to: manage for results (PRSPs and MDGs), set targets and monitor outcomes, design development policies, make evidence-based decisions about allocation and management of scarce resources, and enable the private sector and citizen make informed choices.

The cluster has developed a business plan and members are expected to support its implementation.

#### **4. Most important accomplishments**

The ECA in collaboration with the UNSD has undertaken a number of activities aimed at strengthening statistical capacity of African countries to produce quality information on MDGs. These activities mainly took place under the UN development account projects aimed at strengthening NSSs to enable them to meet their statistical needs and to improve the availability and quality of data required to develop and compile the indicators to monitor internationally agreed Goals, including the MDGs. This was successfully accomplished with the countries of the Economic Community of West African States during the period 2004-2006. Building on this successful experience, the exercise is being repeated with the countries of the Southern African Development Community (SADC) covering the period 2006-2009.

The overall goal of the projects is to strengthen national statistical systems in the SADC region to enable them to meet their statistical needs and to improve the availability and quality of data required for MDG monitoring. It also aims at promoting inter-regional cooperation among the countries of the region in the field of statistics and establishing a platform for communication and data exchange. The substantive focus of the programme lies in the areas of development, production and analysis of development indicators, including the MDG indicators; methods of data collection: censuses, vital statistics systems, household surveys and how these impact on the final monitoring capacity of countries; organization of the integrated statistical systems and user-producer relations; and use of ICT. Advisory services and a series of sub-regional events including expert group meetings and training workshops constitute the core activities of the project.

The project's achievements include a noticeable improved capacity of NSOs to provide reliable and timely data for economic and social policy formulation and management to national and international users, and in particular to develop and disseminate data for national and international progress reports on the MDGs; improved organization of the statistical systems and user-producers relations; strengthened communication and coordination among countries and between the NSOs and regional co-operation in the area of statistics; upgraded information and communication technology to promote networking among statistical offices in the region; and enhanced and strengthened linkages and synergies among sub-regional institutes in the Africa region such as SADC and ECOWAS.

## 5. Next steps

In terms of strategy and program for regional-global statistical conciliation on MDGs, the ECA with the collaboration of regional partners has set up a number of initiatives that would form a framework for future work in this regard. These include the Statistical Training Program for Africa (STPA), the StatCom-Africa Working Group on Development Indicators, and the Joint Regional Publications and Databases Working Group of the ASCC.

- ***The Statistical Training Program for Africa:*** Recognizing the criticality of statistical training for the production of quality statistics, a working group led by ECA/ACBF was set up to propose a strategic programme on human resources and training in statistics. Building on the proposal presented to the last coordination meeting, the ACS is finalizing a draft of the detailed proposal on the STPA. The key elements of the programme are: support to Regional Statistical Training Centres, establishment/support for In-Service Training Centres as recommended by the RRSF and the Induction-Tutorage-Mentoring Facility. This programme can be used to strengthen the capacity of African countries in their quest to produce and disseminate quality statistics for MDGs monitoring.
- ***The StatCom-Africa Working Group on MDG Indicators:*** During StatCom-Africa I, participants discussed and resolved that there was a need to set up a WG on Development Indicators. The rationale behind this was that many challenges hamper the capacity of African countries to report on progress or lack of progress in reaching the MDGs. The main objective of the WG is to support StaCom-Africa in its quest to address challenges facing African countries on MDGs monitoring. The WG agreed on a number of deliverables for 2008 including the development of detailed ToRs by the end of March 2008, one annual meeting of the group, support some members to attend IAEG on MDG Indicators and any other international MDG meeting, and setting up an online discussion forum by August 2008 for members to be able to be involved in active discussions. Many of the recommendations emanating from this report will be implemented through the work of this WG.
- ***The Joint regional publications and databases Working Group of the ASCC:*** In order to minimize duplication of effort and dissemination of conflicting data on African countries, it was agreed that a working group on databases and joint statistical publications led by AfDB/ECA be set up to harmonize regional statistical databases and publications. The WG envisages developing a regional database including an MDG's component. The joint African Statistical yearbook will also have a section on MDGs. The WG will also help African countries to develop national databases that would feed the regional one.