IDA14

Measuring Results:
Improving National Statistics in IDA Countries

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Acronyms and Abbreviations

CAS	Country Assistance Strategy
DAC	Development Assistance Committee
DECDG	Development Economics Data Group
DHS	Demographic and Health Survey
DQAF	Data Quality Assessment Framework
GDDS	General Data Dissemination System
GDP	Gross Domestic Product
GMIS	Global Monitoring Information System
GNI	Gross National Income
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association
IES	Income and Expenditure Survey
IMF	International Monetary Fund
JSA	Joint Staff Assessment
LSMS	Living Standards Measurement Study
MAPS	Marrakech Action Plan for Statistics
M&E	Monitoring and Evaluation
MDG	Millennium Development Goals
MECOVI	Program for the Improvement of Surveys and the Measurement of Living Conditions
NSS	National Statistical System
PARIS21	Partnerships for Statistics in the 21st Century
PRS (P)	Poverty Reduction Strategy (Paper)
RMS	Results Measurement System
SDDS	Special Data Dissemination Standard
STATCAP	Multi-Country Statistical Capacity Building Program
UN	United Nations
UNDP	United Nations Development Program
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization

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"Whether we wish to adjust the size of our fiscal deficit, increase social spending, pursue macroeconomic convergence in the region, or assess progress in achieving the Millennium Development Goals, accurate, timely, useful data lie at the heart of all these efforts... Achieving the right policies requires the management of trade-offs informed by good statistics."[1]

I. Background

1. Rigorous monitoring and evaluation of outcomes, evidence-based policy making, and greater transparency and accountability are part of a broad strategy for improving development effectiveness that is often referred to as "managing for results." Timely and reliable statistics are a key input to the results management process. The IDA Results Measurement System (RMS), endorsed by the IDA Deputies at their July 2004 meeting in Hanoi, monitors the aggregate results obtained by 81 IDA countries on a set of 14 indicators. Monitoring and reporting on publicly agreed indicators is also a core part of the Poverty Reduction Strategy (PRS) process and lies at the heart of the international agreement on the Millennium Development Goals (MDGs).

2. The report on the IDA RMS[2] noted the need to intensify support within Country Assistance Strategies (CASs) and IDA projects for improving the statistical capacity of member countries and to work in partnership with other agencies to strengthen the international statistical system. "Country capacity to measure progress toward core development outcomes is critical to country-led implementation of PRS, and is the foundation for global monitoring of progress toward MDGs and complementary monitoring efforts such as the IDA Results Measurement System. It is recommended that, in addition to continuing support for the PARIS21 consortium,[3] IDA intensify support within its Country Assistance Strategies and projects for statistical capacity building, and work in partnership to implement the global action plan to strengthen statistical systems."[4] The global action plan for improving statistics was proposed at the Second Roundtable on Measuring for Results in Marrakech, Morocco, in February 2004. Now commonly known as the Marrakech Action Plan for Statistics or MAPS, it has been widely endorsed by international agencies (Annex 1).

3. Because the successful implementation of the IDA RMS — or, indeed, the PRSP process and the MDGs — is limited by the capacity of countries to produce reliable indicators, an expert panel which reviewed the IDA RMS strongly supported "…the Bank's commitment to statistical capacity development and the emphasis on managing for results underpinned by empirical evidence …." To identify shortcomings in statistical capacity, the panel recommended the development of an indicator of statistical capacity without imposing additional reporting burdens on countries. The panel also reviewed the Marrakech Action Plan for Statistics and endorsed its emphasis "… on improving both the national and international components of the global statistical system." In their recommendations they noted "…the strong need for even greater coordination between international agencies and, in

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1 Trevor Manuel, "Data for poverty measurement," Opening address at the Joint National Treasury/World Bank Workshop, Pretoria, 28 June 2004.

2 IDA Results Measurement System. Recommendations for IDA14. June 2004 http://siteresources.worldbank.org/IDA/Resources/IDA14resultsrecommendations.pdf

3 PARIS21 (PARtnership In Statistics for development in the 21st Century) is an international consortium of users and producers of statistics. See www.paris21.org.

4 The italics in this quotation are taken from the original report.

the context of MDG and IDA monitoring, a particular need for a regular and coordinated approach to the various household surveys that different agencies support."[5]

4. The rest of the paper is organized as follows. Section II looks at the role that good statistics can play in managing for development results and some examples of problems caused by bad statistics. It points out the important feedback loop between the production of reliable statistics and their use for monitoring and evaluation. Section III introduces a set of three indicators used to measure the statistical capacity of IDA countries based on readily available and comparable information. The indicators reveal differences in the strengths and weaknesses of country systems, confirming that country-based programs for capacity building will be needed to produce sustainable results. The Joint Staff Assessments (JSAs), prepared by staff of the World Bank and IMF, are reviewed in section IV for further evidence of countries' statistical capacity and their ability to carry out the monitoring programs built into Poverty Reduction Strategy Papers (PRSPs). Recent CASs are examined in section V to see to what extent statistical capacity issues are being addressed in the World Bank's business plans. The results suggest that shortcomings in the statistical capacity of IDA countries are widely recognized, but they have not been systematically addressed in CASs. Where CASs propose statistical projects, they are often aimed at short-term data collection activities rather than long-term capacity building.

5. Section VI reviews the Marrakech Action Plan for Statistics. Because capacity building is inherently a long-term process, MAPS calls for continued support for the development of national statistical development strategies and increased financing capacity building. However, it also recognizes that there are opportunities for making near-term improvements in the quality and timeliness of national and international development statistics needed to monitor the MDGs, the IDA indicators, and national development goals. Section VII proposes a way forward through better alignment, harmonization, and coordination of major international survey programs.

II. The Role of Statistics in Managing for Results

6. The paradigm of development effectiveness holds that good policies based on empirical evidence and a clear understanding of the development process will lead to improved outcomes, by directing scarce resources to their most effective use and ensuring that benefits flow to those in need. A corollary is that rigorous monitoring of programs and evaluation of results will lead to a better understanding of the development process, better policies, and further improvements in outcomes. This feedback loop, from results to policies to programs, lies at the core of the results agenda. Statistics are the information carriers that make the process work.

7. Good statistics are accurate and timely. They must be collected, compiled and disseminated using reliable and impartial methods. They must be relevant to the purpose for which they are used. Moreover, they should be readily available to all who seek to use them. In Tanzania, for example, good, readily available and relevant statistics have led to better targeting of health programs, with an impact on human development (Box 1). However, good statistics are not costless. Tanzania, like most poor countries, cannot build an adequate statistical system with its own resources.

8. Good statistics can improve the quality of decision-making and yield significant rewards. Bad statistics may result in misleading assessments, bad decisions, or poorly targeted programs, which are likely to disproportionately affect the poor. In Malawi, poor monitoring of agricultural

[5] Methods for Monitoring the Achievements Made Towards IDA Results Indicators, Committee on Development Effectiveness, October 2004 (CODE2004-0077)

production disguised an impending food shortage, delaying an appropriate response to the 2002 food crisis. In Nicaragua, underestimates of gross domestic product distorted other indicators, raising the potential for inappropriate policy advice (Box 1).

Box 1: Leading and Misleading Statistics

Better statistics improve health interventions in Tanzania

In the Morogoro District of Tanzania, the Ministry of Health operates a sentinel surveillance system to monitor key demographic indicators, including mortality and morbidity, and these data are used to set priorities and allocate health care resources. According to the International Development Research Centre,[6] child mortality has dropped by around 30-40 percent, and resources have been targeted at preventing and treating key diseases, such as malaria. Dr Harun Machibya, District Medical Officer in Morogoro, says: "Now we can prioritize more comfortably because we have concrete, reliable information from the public at large." Tanzania's Minister for Health, Anna Abdallah, recognizes the need to make more use of data: "The problem now is how do we scale up to make sure that the health plans in our country are being planned with evidence."

Over estimates of crop production contributed to the 2002 food crisis in Malawi

The case of the Malawi food crisis in early 2002, which caused widespread starvation and hardship, illustrates the problems caused by poor quality official statistics. The causes of the crisis were clearly complex, and according to the IMF[7] included low crop yields, uneven rainfall patterns, lapses in early warning systems, distortions in domestic markets, and mismanagement of food reserves. However it is clear that poor quality official crop production estimates contributed to the crisis by slowing down the response: early warning systems in place "relied on flawed agricultural statistics, which indicated that the shortfall would be more than compensated for by an increase in other food crops. The failure of the systems became only apparent in February 2002, when Malawi ran out of food." In a study into the causes of the famine commissioned by ActionAid Malawi, Devereux[8] concludes that the over-estimation of the production of roots and tubers, such as cassava and sweet potatoes, constrained commercial and public responses, and contributed to the process that saw food shortages deteriorate into famine. "This optimistic over-estimate delayed predictions of a food emergency, even though shortages of maize and other food crops began to appear in the market and prices began spiraling out of control."

Impact of the underestimation of Gross Domestic Product in Nicaragua

According to the World Bank's Public Expenditure Review[9] of Nicaragua in 2001, national income accounts for the late 1990s significantly underestimated Nicaragua's gross domestic product. Estimates of the "true level" of GDP range from 70-80 percent higher than the reported official figures for these years. The review concludes that key policy conclusions that would be reached from using the unadjusted and adjusted figures are quite different. Using unadjusted figures, rapid rises in gross domestic investment appeared to have been driven equally by rapidly rising public and private investment levels, and government spending and taxation levels appeared to be high. Using the adjusted figures, the private sector becomes the major source of rising investment and government spending and taxation levels appear much more modest.

9. Examples such as these may be found throughout the world. Nor are poor countries the only places where the quality and availability of statistics limit decision-making. Uncertainties over the measurement of productivity have led to conflicting recommendations for fiscal and monetary policies in OECD countries. The realization that poor quality statistics and uncertainties over their provenance inhibit the smooth functioning of financial markets led to the development of the IMF's Special Data Dissemination Standard (SDDS), to which 26 high-income countries and 31 middle-

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6 Making Plans for Success – The Tanzania Essential Health Interventions Project, International Development Research Centre, October 2003

7 Malawi – The Food Crises, the Strategic Grain Reserve, and the IMF. A Fact sheet, International Monetary Fund, July 2002

8 State of Disaster. Causes, Consequences and Policy Lessons from Malawi. Devereux, S., ActionAid Malawi, June 2002

9 Improving the Poverty Focus of Public Spending. Nicaragua Public Expenditure Review, World Bank, December 2001

and low-income countries now subscribe, including 4 IDA members. However, for most poor countries, meeting the requirements of the SDDS is far in the future. For now, they require the basic statistics to provide accountability to their citizens on the use of resources, allow good policy formulation and monitoring, particularly within poverty reduction strategies, report on progress toward the Millennium Development Goals, and engage in the global economy.[10]

III. The Current Statistical Capacity of IDA Countries

10. Statistical capacity refers to the ability to produce and disseminate reliable, relevant, and timely statistics and to analyze and use them for policy making. Many institutions and agencies are involved in national statistical systems, including the central statistical agency, monetary authorities, and line ministries, such as the ministries of finance, planning, health, and education, which are normally both producers and users of statistics. Other important contributors to the production, analysis, and use of statistics are businesses, academic institutions, and civil society organizations.

11. A full evaluation of a country's statistical capacity considers all of the characteristics of good statistics and the performance of all participants in the statistical system. Such an evaluation, which must be conducted on the ground with the full cooperation of the system's managers and users, provides a detailed assessment of the system's strengths and weaknesses. Here we adopt a more limited approach, which draws on publicly available information on statistical activities in most countries of the world, to produce a small set of statistical capacity indicators. The resulting indicators help to identify countries with weak statistical systems and suggest where improvements are most needed. A prototype of this method was employed in the paper on statistical capacity building presented to the Bank's Board of Executive Directors in October 2002.[11] Further work has been done to produce a more robust and well-founded set of indicators based on widely accepted statistical capacity frameworks, including the General Data Dissemination Framework of the IMF and the Statistical Capacity Building Indicators of PARIS21. Although the small set of indicators cannot capture all dimensions of statistical capacity, a major benefit is that compiling them imposes no additional reporting burden on countries themselves.

12. The framework used for the indicators presented here has three dimensions: statistical practice, data collection, and indicator availability. This approach captures various aspects of data quality, which is broadly defined as producing statistics that are fit for their purpose. In particular, it presents proxy measures for methodology, data access, timeliness, periodicity, and comparability. There are some limitations. For example, the approach does not assess the efficiency of statistical systems, or the capacity or willingness of countries to use the statistics they produce to make improvements in policy and management. These aspects have not been included simply because comparable and complete information is not readily available, but further work will be undertaken to refine the system, and to investigate what information can be obtained through existing sources (such as the IMF Data Quality Reference Site). However, to provide insights into the capacity of countries to analyze and use statistical data, 38 Joint Staff Assessments of PRSPs are studied in a later section of this paper to find out what they say about PRS monitoring plans.

13. For each dimension, a country is scored against specific criteria, using information available from the World Bank, IMF, UN, UNESCO, and WHO. The scores are aggregated to give a result on

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[10] Many IDA members participate in the General Data Dissemination System (GDDS) of the IMF. The GDDS encourages countries to report on existing statistical processes and adopt good practice, and covers basic economic, financial, and social statistics.

[11] Building Statistical Capacity to Monitor Development Progress, October 23, 2004

a scale of 0-100. Scores on each dimension were calculated for 1999 and 2004, and for different country groupings (IBRD, IDA, Sub-Saharan African countries in IDA, and all other IDA countries).

14. The statistical practice dimension reflects a country's ability to adhere to internationally-accepted statistical standards and methods. This is captured by an assessment of guidelines and procedures used to compile macroeconomic statistics, some social data reporting practices, and whether a country subscribes to the SDDS of the IMF. A score of 100 percent means that a country meets current international standards in all areas assessed. The data collection dimension reflects whether countries conduct data collection activities with specific periodicity standards, and whether data from administrative systems are available, and used to calculate statistical data. Specific criteria include conducting population and agricultural censuses every ten years and surveys to monitor poverty and health every three or five years, and maintaining a complete vital registration system. A score of 100 percent means that countries conduct these basic censuses and surveys at regular intervals and support a complete vital registration system. The availability dimension is evaluated against the availability and frequency of seven IDA14 and MDG indicators, plus per capita GDP growth, as recorded in the World Development Indicators database (Box 2). This dimension attempts to measure the extent to which data are made accessible to users through the translation of source data into timely statistical outputs. A score of 100 percent means that these indicators are available with acceptable frequency on a regular basis. Annex 2 gives further details of the scoring methodology.

Box 2: Indicators selected for the IDA 14 Results Measurement System[12]

Proportion of population below $1/day poverty line
Under-5 child mortality
HIV prevalence rate of women aged 15-24
Proportion of births attended by skilled health personnel
Ratio of girls to boys in primary and secondary education
Primary school completion rate
Proportion of population with sustainable access to an improved water source
Fixed lines and mobile telephone per 1,000 inhabitants
Formal cost required for business start up
Time required for business start up
Public financial management
GDP per capita
Access of rural population to an all-season road
Household electrification rate

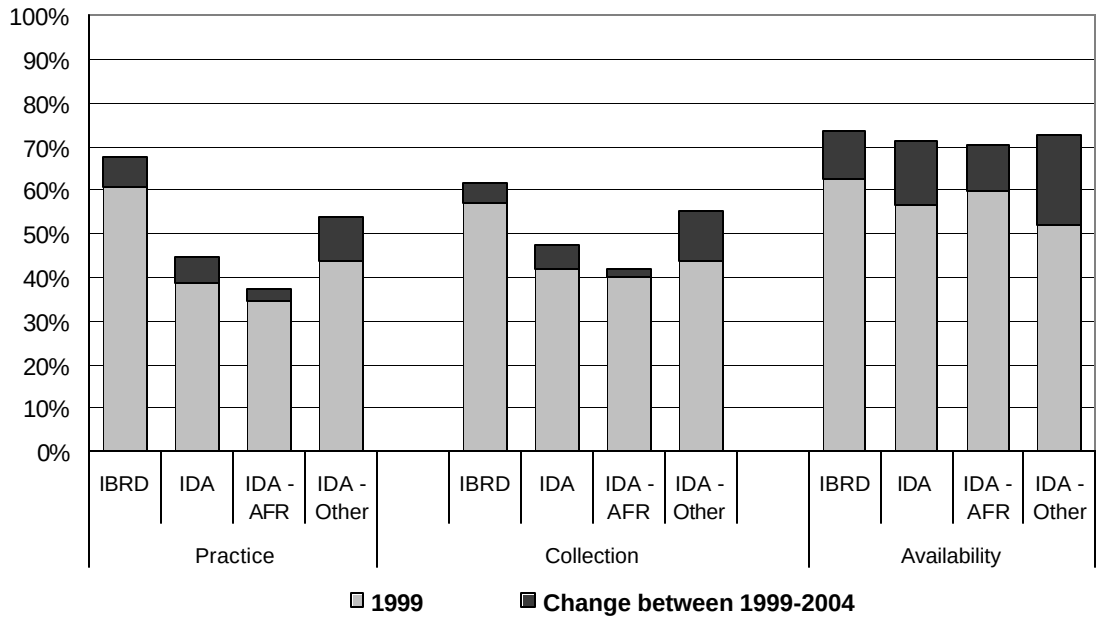
15. Average scores for groups of IDA and IBRD countries are shown in Figure 1. Although there is significant variability between countries, scores for IDA countries are lower on average than IBRD countries, and no IDA country scored perfectly. This suggests that there is room for improvement across the board. With a few exceptions, the lowest scoring countries are from Sub-Saharan Africa.

16. In the area of practice, many countries did not reach the mid-point score and improvements in statistical standards and methods are critically needed. Although some progress has been made since 1999, the pace of change has been slow, especially for Sub-Saharan African countries who score lowest in aggregate; countries in other regions appear to have been able to adopt new methods more quickly, particularly in economic statistics. The practice dimension reflects the institutional

[12] Indicators in italics are those included in the availability dimension of the statistical capacity score (see section III).

and professional context in which statistical activities take place, and comprehensive statistical capacity building programs are needed to address these deficiencies.

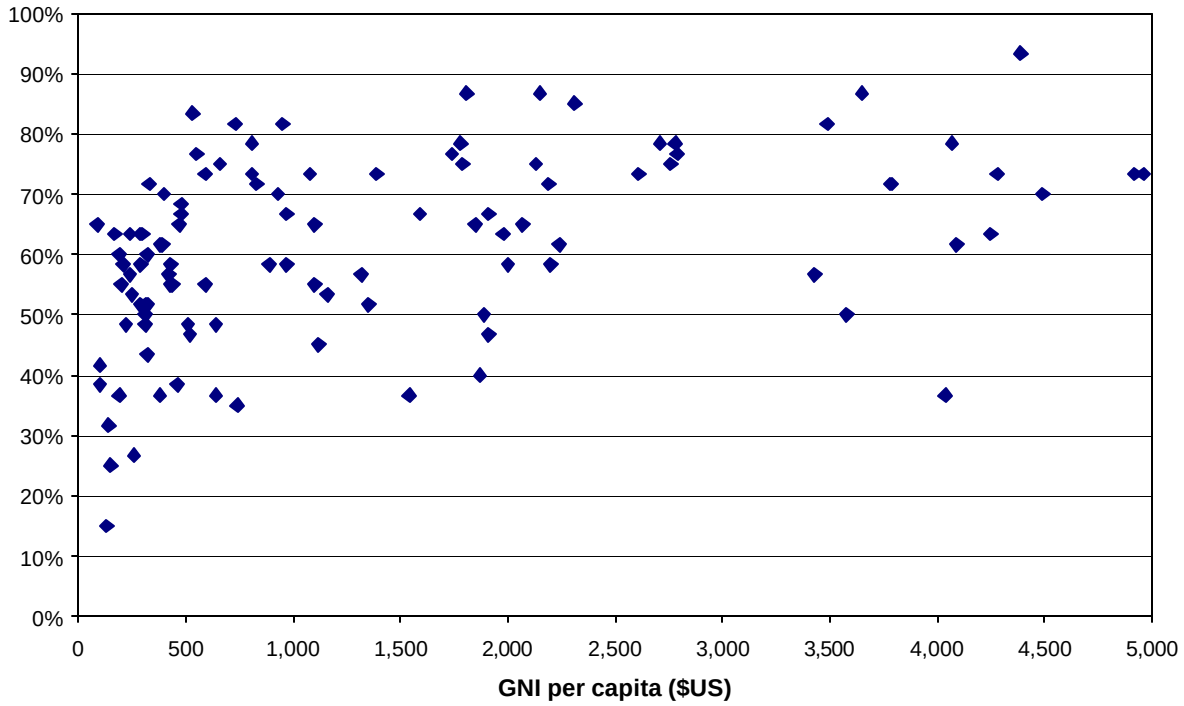
Figure 1: The Three Dimensions of the Statistical Capacity Indicator for IBRD and IDA Countries: Average Score by Country Grouping



17. Scores against the data collection dimension also demonstrate weaknesses. Countries that score lowest are those without established data collection systems, and those countries that do not benefit from externally financed surveys and international data collection initiatives. Eastern Europe and Central Asia and from South Asia have higher average scores than other regions because many countries in Europe and Central Asia have established data collection systems, including vital registration, and countries in South Asia have been able to implement regular census activities. It should be noted that some elements of data collection systems are not reflected in the score. In Eastern Europe and Central Asia, for instance, the quality of data from vital registration systems in some countries is thought to have decreased in the last few years.

18. International initiatives have increased the number of health and poverty surveys in IDA countries in recent years (for example, the Multiple Indicator Cluster Surveys sponsored by UNICEF, the Demographic and Health Surveys sponsored by USAID, and the MECOVI livings standards measurement project sponsored by the World Bank and the Inter-American Development Bank). Even so, the gap between IDA and IBRD countries on data collection remained significant between 1999 and 2004, and progress in Sub-Saharan Africa was slow. In that region, the frequency of sample survey activities has improved, but the number of countries conducting large scale surveys, such as population censuses and agricultural surveys, declined slightly.

Figure 2: The Relationship of Statistical Capacity Score with GNI Per Capita



19. Average scores for the availability dimension for IDA countries are comparable to IBRD countries, and have improved considerably in recent years. This is an encouraging trend. It suggests that the recent emphasis on MDG and PRSP monitoring has stimulated the estimation and dissemination of key indicators. To a degree, it also reflects recent efforts of international organizations to locate and utilize data from existing data sources. In some cases, modeling techniques have been used to improve data quality and fill in data gaps. For example, child mortality rates calculated from survey data normally refer to a five-year period, and the calculation of estimates for a single year can only be produced from a model. However, these techniques may mask the lack of recent data and lead to the use of estimates that are very uncertain.[13] This underscores the importance of taking a long-term approach to building capacity in data collection at the country level.

20. Figure 2 shows the relationship between the average score of the three dimensions for each country, and per capita gross national income (GNI), for IDA and IBRD countries with less that $5,000 per capita annual GNI. The chart provides the important insight that higher income does not guarantee better statistical capacity, and that a relatively high level of statistical capacity can be attained in a low-income environment.

IV. The Use of Statistics in PRSPs

21. Statistics are only of benefit when they are used. Although it is difficult to assess the extent to which statistics are used in making policy in IDA countries without a detailed evaluation of country-level monitoring and evaluation mechanisms, it is possible to review the demand arising from the results-focused approach taken in their poverty reduction strategy papers.

[13] For example, estimates of under-5 mortality rates for the Republic of Congo have been made by UNICEF/WHO for the current decade, yet the most recent reliable data on mortality comes from the 1974 census.

22. Through their PRSPs, countries establish goals for their development programs, propose strategies for achieving those goals, and identify a set of statistical indicators to monitor progress toward time-bound, quantified targets. Most countries select targets and indicators consistent with the Millennium Development Goals, but many also choose to collect and monitor indicators related to growth, macro-economic stability, governance and infrastructure.[14] Of the indicators included in the IDA Results Measurement System, all countries have included some measure of income poverty, school attendance, maternal health, and economic growth, with more than 75 percent of countries additionally selecting indicators of gender balance, child mortality and immunization, access to water, macro-economic stability and road transport (Table 1).

Table 1: Indicators in PRSPs, Compared to Areas Measured by Key MDG Indicators

Countries including at least one indicator:	**Areas covered**
All	**Income poverty, school attendance, maternal health, economic growth**
More than 75 percent	**Gender balance in education, child mortality,** child immunization**, access to water**, **macro-economic stability, road transport**
More than 50 percent	Child malnutrition, **school completion**, literacy, access to sanitation
Less than 50 percent	Gender balance in employment
Indicators for the subject areas highlighted in **bold** are included in the IDA 14 Results Measurement System.	

23. Just as PRSPs are intended to be country-owned development strategies, their monitoring plans should be based on country-owned statistics. However, PRSPs are often ambitious and imply high levels of statistical capacity. In many cases, data requirements exceed the capacity of statistical systems to deliver timely and good quality data. In countries with weak statistical capacity, this casts doubt on their ability to implement their poverty reduction strategies. However, in some countries, such as Vietnam, Ethiopia, and Tanzania, the data demands of PRSPs have led to efforts to improve the capacity of statistical services.

24. Joint Staff Assessments of PRSPs, conducted by Bank and Fund staff, review the soundness of the PRSP as a basis for concessional assistance. They also provide constructive feedback to countries on the deficiencies of the PRSP and its monitoring plan, and make suggestions for improvement. Most JSAs provide some commentary on statistical capacity. To assess the adequacy of statistical systems for monitoring each PRS, JSAs for 38 PRSPs[15] have been analyzed. The analysis provides additional insights into the strengths and weaknesses of statistical systems in PRSP countries, and in particular adds information about the capacity to use data.

25. The method used for the analysis is explained in detail in Annex 3. The conclusions are broadly consistent with the analysis of statistical capacity in the previous section. Almost half of all PRSPs are constrained by poorly organized statistical systems and more than half are constrained by weak data collection programs. All JSAs express some concerns about the choice of indicators in PRSPs, and about a third consider the choice to be a significant constraint. In general, the capacity of the country to conduct in-depth policy analysis and evaluation is also judged a serious limitation. These findings are reinforced by the recent Operations Evaluation Department evaluation of the

[14] Are Poverty Reduction Strategies Undercutting the Millennium Development Goals? An Empirical Review (preliminary draft). Makiko Harrison, Jeni Klugman, Eric Swanson, World Bank, April 2004

[15] As of July 31, 2004. Most JSAs are of full PRSPs, while some are of PRSP Annual Progress Reports. For one country (Bangladesh), the JSA is based on an interim PRSP.

Poverty Reduction Strategy initiative, which concludes "The development of country-specific indicators and monitoring systems to track them is at a preliminary stage in most countries."[16]

V. Statistical Capacity Issues in the CAS Process

26. CASs summarize the World Bank's business plans for client countries. Building on the country's development plan, the CAS identifies opportunities for and obstacles to Bank assistance and investment programs. For IDA countries, the CAS is normally based on the Poverty Reduction Strategy. Recognizing the need to strengthen the results focus of CASs, the World Bank initiated a pilot program for results-based CASs, which start with the long-term objectives of the government to determine the best project portfolio and place greater emphasis on outcomes. The measurement of development results and monitoring of progress are an essential component of a results-based CAS.

27. A review of 50 CASs[17] for IDA countries approved since 2000 shows that about two-thirds recognize that countries lack adequate statistics or that existing statistics are not reliable or comparable over time (Table 2). These deficiencies directly affect both the ability of the Bank to offer meaningful policy advice and the ability of countries to monitor and evaluate their own development programs. There has been little change in the rate of diagnosis over time.

Table 2: Statistical Issues in Country Assistance Strategies

Country Assistance Strategies which were:	Number	Diagnosis:	Proposed remedies:	
		Identify statistical deficiencies	Data collection activity	Support capacity building
Approved between 2000 and 2004 (total)	50	62%	50%	38%
Approved in 2000, 2001or 2002	24	63%	50%	33%
Approved in 2003 or 2004	26	62%	50%	42%
Results-based[18] (5 IDA pilots)	5	80%	40%	80%

28. One half of the CASs propose new data collection activities. While data collection is an important function of statistical agencies, there is a risk that ad-hoc efforts based on specialized surveys will not contribute to sustainable improvements in the statistical system and may even reduce the capacity of the system by diverting resources from other core activities. Less than a half of all CASs propose broad-based statistical capacity building efforts, although this has been increasing over time.

29. The five pilot results-based CASs for IDA countries provide a more thoughtful consideration of system-wide needs across statistical sectors and long-term nature capacity building. These CASs put less emphasis on data collection activities and greater emphasis on capacity building. In general, they pay more attention to data and statistical capacity constraints than do past CASs. For example, a results-based CAS provides a more careful review of the availability and quality of statistics in the country. In some cases, however, this interest is directed principally at data issues related to the

[16] The Poverty Reduction Strategy Initiative. An Independent Evaluation of the World Bank's Support Through 2003, World Bank Operations Evaluation Department, July 2004

[17] Out of fifty reviewed documents, three are Interim CAS (Comoros, Cote d'Ivoire, Nigeria).

[18] The five pilot CASs included in this review are: Armenia, Cameroon, Mozambique, Sri Lanka and Zambia.

monitoring and evaluation requirements of the Bank's assistance program, rather than a more broad-based concern for the country's own monitoring, evaluation, and management activities.

Box 3: Good Practice in CASs

Recent CASs for Kenya and Armenia provide good examples of assessing statistical capacity and proposing appropriate action. The Kenya CAS takes a comprehensive approach to statistical capacity building, based on the implementation of a national statistical development strategy supported by IDA and a number of other development partners. The CAS for Armenia finds that "Armenia's capacity for poverty monitoring and analysis is reasonably good, as the National Statistical Service (NSS) has conducted regular household surveys for a number of years." The CAS identifies steps to further improve capacity, including "strengthening the linkages between different household surveys" and "improving questionnaires to reflect current policies (for example, on social assistance) and provide better information (for example, on employment and earnings)."

30. With the increasing attention paid to results and the need for better statistics, it is likely that future CASs will increasingly need to discuss statistical capacity issues and may include specific proposals to address deficiencies.[19] The statistical capacity indicators previously discussed and the underlying information system on which they are based are a useful tool to assist with this diagnosis and planning work. They could also be used as inputs to development planning and policy making at national level (for example in a country's PRSP) and by other international agencies (for example, as part of the UN's UNDAF/CCA process). To simplify statistical capacity assessments and to deepen the information base, we plan to work with the UN Statistics Division, PARIS21, and other partners to pool information on country statistical systems and to make them available on-line for development planners, policy makers, and analysts. As a starting point, there is already a preliminary tool available to produce the information sheet shown in Annex 4.

VI. A Harmonized International Approach: the Marrakech Action Plan for Statistics

31. The First Round Table on Better Measurement, Monitoring and Managing for Results (Washington DC, June 2002) called for a better approach to statistical capacity building by development agencies. The Development Committee subsequently requested a time-bound, costed action plan for improving statistics for measuring development outcomes. As a result, the Marrakech Action Plan for Statistics was presented and agreed at the Second Round Table on Managing for Development Results (Marrakech, February 2004, Annex 1). This plan aims to develop national statistical capacity, to improve the international statistical system, and to make improvements in the key areas of population censuses, household surveys, and indicators for the MDGs. It builds on other initiatives such as PARIS21and STATCAP, a new Bank lending instrument to support statistical capacity building in member countries.

32. Country-driven strategic statistical planning, based on principles of comprehensiveness and user-focus, has proved an effective tool to develop sustainable and prioritized capacity building programs. It is the recommended approach for IDA countries. In all countries, and particularly the poorest, a sustainable level of statistical capacity will be reached through the implementation of comprehensive plans, prioritized through a careful and realistic assessment of user needs and the demand for data, and existing capacity in statistics and the public sector as a whole. Likely

[19] "Specifically, the CAS should highlight the weaknesses of the M&E capacity in government (which can be based on the JSA of the PRSP or from more in-depth analytical work such as a readiness assessment), and how the Bank or other partners are supporting capacity building. This capacity building may include strengthening the country's statistical base thus informing a statistical master plan." Country Assistance Strategies: Retrospective and Future Directions, Committee on Development Effectiveness, Operational Policy and Country Services, World Bank, March 2003.

scenarios for the level of resources, and political realities, need to be taken into account. MAPS recommends that statistical capacity building programs should be based on national statistical development strategies, and that the international community should assist all countries that wish to adopt this approach. MAPS sets a specific target of assisting all low-income countries to develop these plans by 2006.

33. Progress is being made in implementing MAPS. Many countries are developing national strategies for statistical development, assisted by the development community through PARIS21 and through the Trust Fund for Statistical Capacity Building managed by the Bank (which has so far provided support for 22 strategic plans). STATCAP was approved by the Board in March 2004. Three countries are currently taking advantage of the new STATCAP program (Ukraine: $32 million, Burkina Faso: $10 million, and Kenya: $20 million), and discussions with other countries are ongoing. Seven other STATCAP projects, with a total loan or credit amount of more than $100 million, are in various stages of preparation, representing a major increase in the funding for statistical capacity. Furthermore, some ten percent of all active World Bank projects include a minor component aimed at improvement of statistics, although their impact on the wider statistical system is limited.

34. Progress is also being made on other elements of MAPS. Activities to prepare for the 2010 global census round have been started by the United Nations Statistics Division, and the Bank is helping formulate proposals for funding. The Bank and other international partners have established a new International Household Survey Network (IHSN), which aims to better coordinate internationally-sponsored surveys and provide better access to survey results and information. The Bank is performing the secretariat function for the IHSN. A key focus of the IHSN's work is the expansion of a survey data archive, developed at the World Bank, which now contains records from over a thousand household surveys that were not previously easily accessible. A new tool to assist countries in archiving and disseminating their survey results is also under development and will be made available free of charge to all IDA countries. The United Nations Statistics Division is also developing a new set of principles and practices to improve coordination and accountability in the international statistical system.

35. Although much has been achieved, more needs to be done by the international community and national governments. The expert panel convened by the Bank to review the IDA Results Measurement System welcomed the strong emphasis placed by the Bank on strengthening national and international statistical capacity and the objectives of the Marrakech Action Plan for Statistics. However, the panel also recommended that urgent progress should be made to strengthen the database of key indicators needed for the IDA RMS and for monitoring the MDGs.

VII. A Program to Accelerate Progress in IDA countries

36. The IDA 14 Results Measurement System will produce annual reports on the aggregate outcomes for the 14 selected indicators, using the methods of aggregation, gap-filling and calculating rates of change recommended by the expert panel. Estimates of indicators will draw on the information reported through the international statistical system or, in the case of the private sector and fiscal management indicators, compiled through World Bank sponsored programs. However, the reliability of most of these indicators depends on the performance of national statistical systems. IDA countries confront many constraints in carrying out even basic statistical functions. Annex 5 discusses the foundations of a basic statistical system and the problems statisticians in developing countries face. Accelerating progress and increasing the resources

available for statistics will require increased collaboration between donors and developing countries and between users and producers of statistics. While the Marrakech Action Plan provides a roadmap for global efforts to improve national and international statistical, the implementation of the IDA 14 Results Measurement System is an opportunity for donors and IDA countries to undertake certain steps needed to make immediate improvements in the quality and availability of development statistics.

37. **Increasing awareness of statistical capacity issues in IDA countries.** Improved assessments of statistical capacity are required to inform planning processes, particularly during PRSP and CAS preparation, and to guide investment and technical assistance programs. As part of its Global Monitoring Information System (GMIS),[20] the Development Data Group will work with other international agencies to increase the information available on the statistical programs of IDA countries. Drawing on this information base, the GMIS will provide a country information sheet on statistical activities. A prototype is shown in Annex 4. The information sheet, including the statistical capacity indicators previously discussed, can be used by World Bank country teams during CAS preparation and can also be shared with other bilateral and multilateral agencies to help in the development of their assistance plans through an appropriate public discussion forum (for example, a web site) where information on statistical practices can be exchanged.

38. **Promoting National Statistical Development Strategies.** Based on a rigorous analysis of capacity constraints, countries should develop and implement national statistical development strategies to plan for sustainable improvements in their statistical systems. Plans should be prioritized and realistic, taking into account budget and human resource constraints, but also ambitious and consistent with recognized statistical standards and codes of conduct. Many developing countries will require donor assistance to prepare their statistical development strategies. To meet the MAPS target, all low-income IDA countries, where feasible, should have strategic plans in place by the end of 2006. Resources from the Trust Fund for Statistical Capacity Building and the work of PARIS 21 will be used to support this effort.

39. **Implementing a pilot program to harmonize and align data collection activities**. Better alignment of data collection instruments and internationally sponsored survey programs, along with improved statistical practices in countries, could substantially increase the availability, timeliness, and reliability of key indicators. Annex 6 shows details of recent survey programs in IDA countries, including their relationship to MDG indicators. As these tables show, surveys are often ad-hoc and isolated exercises, conducted where and when donor funding is available. The sequencing of surveys is not always optimal, resulting in data gaps in some countries, and duplication of effort in others. Moreover, developing a sound statistical system is widely recognized to be a long-term process,[21] and capacity building initiatives may overlook the opportunities for increasing the efficiency of internationally sponsored survey programs. Box 4 describes a proposal for a pilot program in 12 countries that would show the value of a more coordinated approach and would make rapid improvements in the frequency and quality of statistics available to national and international policy makers.

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[20] DECDG is working with the Global Monitoring Secretariat to construct a web-based system to make available indicators on the performance of developing and developed countries and international financial institutions.

[21] See, for example, "Some guiding principles for good practices in technical cooperation for statistics," UN Statistical Commission (Economic and Social Council), March 1999

Box 4: A Pilot Program in Accelerated Data Collection

A framework for a coordinated household survey program
Various models for a sequence of household surveys that would meet both national and international needs have been proposed but the most relevant for this proposal is the sequence proposed by Munoz and Scott.[22] This is based on major demographic and living standards surveys on a five-year cycle, with lighter annual surveys in other years. In or around 2005 many countries will conduct either a Demographic and Health Survey (DHS, sponsored by USAID) or a Multiple Indicator Cluster Survey (MICS, sponsored by UNICEF), so the implication of this sequencing is that many countries would need to plan for a living standards or income and expenditure survey in the period 2006 –08.

The need for better harmonization
This model only works if survey instruments are harmonized, so that definitions are comparable, and that key variables are included in questionnaires. Data can then be collected and reported at intervals appropriate for each indicator, and data quality can be improved. An important part of the pilot project will be to obtain this degree of harmonization.

Choice of countries, data collection and dissemination instruments
The choice of countries will attempt to be "representative" of all regions and country size groupings, and cover countries at different levels of statistical capacity. Priority will be given to those countries preparing results-based CASs. Implementation will be based on agreed principles of international cooperation in statistics, will aim to respond to country-specific user needs, and will provide a sustainable basis for further data collection operations. The project will develop national capacity to mount household survey programs and utilize data from administrative systems, and improve capacity to analyze, disseminate, and use the results. Participating countries will be able to utilize the new toolkit for survey dissemination under development by the World Bank.

Implementation strategy
In each country, the project will begin with an assessment of existing data collection instruments, and national requirements for estimating values of key indicators. Countries without statistical development strategies will be assisted in preparing such plans. Appropriate methods for estimating missing data and for improving existing data will be considered; the most likely approach will be to mount household sample surveys and to improve comparability and sequencing of existing surveys, although the use of administrative data will also be investigated. In all cases, the choice of instruments will be made in close consultation with countries concerned and will be consistent with established data collection programs and with national statistical development plans.

VIII. Conclusions and Recommendations

40. The evidence presented in this paper shows that there is a pressing need for improvements in the production and use of statistics in most IDA countries. The Marrakech Action Plan for Statistics has been widely accepted as a framework for national and international efforts to improve statistics for development decision making and monitoring. To support IDA 14 activities and accelerate progress toward the objectives of MAPS, a three-step program is proposed by the Bank under IDA 14.

a. Implementation of the IDA 14 Results Measurement System:

- Working with international partners, compile information on the statistical systems of IDA countries, including indicators of their statistical capacity. Based on this information, the Bank will prepare profiles of countries' statistical capacity (Annex 4). These country profiles will be made publicly available on the Bank's external website and can feed into the preparation of Country Assistance Strategies and PRSPs.
- Monitor statistical capacity building activities undertaken by all development partners in IDA countries. The Bank will prepare a note each year, which will track changes in and describe

[22] Household Surveys and the Millennium Development Goals, Juan Munoz and Kinnon Scott, PARIS21, 2004

efforts being made to improve statistical capacity. This note will be shared with the Board of Executive Directors and made publicly available.

- Track aggregate IDA 14 outcome indicators annually, using methods recommended by the expert panel.

b. **Assist countries in preparing national strategies for the development of statistics**. To meet the MAPS agenda all low-income IDA countries (where feasible) should have national strategies in place by 2006. The World Bank's Trust Fund for Statistical Capacity Building and PARIS21 will continue to support countries adopting a fast-track approach to preparing strategic plans.

c. **Initiate a pilot program to align and harmonize internationally sponsored surveys** and to make improvements in statistical practices consistent with national statistical development plans. In selecting countries for this work, priority would be given to IDA countries preparing CASs during the IDA14 period. This work should be coordinated through the new International Household Survey Network, formed as part of MAPS.

Annex 1: The Marrakech Action Plan for Statistics

At the second international Roundtable on Managing for Development Results in Marrakech, February 2004[23], key international agencies agreed a plan of action that will lead to improved statistics. The plan has six components:

1. Mainstream Strategic Planning of Statistical Systems.

In particular, the goal is to support the implementation of national statistical development strategies in every low-income country by 2006. To achieve this goal, the following steps should be taken:

- Incorporate national statistical development strategies in result-based strategic planning processes such as the PRSP and include them in the policy dialogue between developing countries and donors.
- Ensure that all donor-specific statistical programs support and complement national statistical plans.
- Continue advocating and providing training and financial support from PARIS21 and the TFSCB. Based on the new repositioning of PARIS21 and World Bank's Trust Fund, earmark a significant part of the TFSCB to exclusively support countries' planning work.

2. Prepare for the global 2010 population census round.

Based on the findings of the PARIS21 Census Task Team, prepare for the 2010 round of censuses by developing an overall strategy for funding and conducting censuses in low-income countries.

The first priority is to build consensus on the importance of the 2010 Census Round, recognizing the role census data will play in measuring the MDGs in 2015. Because such an effort should bring together donors and national statistical agencies, PARIS21 could act as the convener with leadership on the coordination and substantive work coming from the UNFPA and UNSD with support from other key organizations. As a first step, the task force should review the recent proposal by UNSD to set up a global trust fund for UN's support of census work and consider options for scaling up this proposal to meet the expected need of the least developed countries. The expected outcome could be a trust fund to support the preparations by the neediest countries for their 2010 census. The resources needed for a Census Trust Fund are estimated to be about $5 million a year for the next three years to support about 15-20 countries per year. The trust fund would be used to:

- Conduct research into census costs and operational methods to determine what practical measures can be taken to reduce costs, as well as how to maximize the timely dissemination and use of census results.
- Conduct research on improved methods for preparing regular population estimates at the national and sub-national level during intercensal years.
- Assist national statistical offices to advocate for conducting regular censuses and securing the necessary funding within countries and from the donor community.
- Build national capacity at the technical level and develop the management skills needed to prepare an overall strategy and costed plan and to coordinate and negotiate with donors and users, pooling potential contributors in a cost-effective strategy.

[23] Managing for Development Results, Second International Roundtable, Marrakech February 4-5 2004. See http://www.mfdr.org

3. Increase financing for statistical capacity building.

- Integrate financing needs from different agencies and different initiatives using the model are for PARIS21 and the World Bank's Trust Fund to make it easier for the donors to see the full picture of needs and make reliable commitments.
- Bring donors together in an annual joint event, perhaps through DAC senior level meetings, and try to engage new donors; the first meeting should take place in 2004.
- A number of IFIs and bilaterals are already major funders of statistical capacity building. But most of this work has been done as part of investment projects in other sectors. In the future statistical capacity building investment projects should be better identified and linked with general budget support and Poverty Reduction Support Credits, using a strategic planning process based on a sector-wide and multi-donor approach.
- Support long-term statistical investment projects with STATCAP-type financing programs. An issue to be resolved is finding the right balance between grants, loans, and country resources.

4. Set up an international household survey network.

- Organize a Household Survey Network for the purposes of sharing information and mobilizing international support for more efficient approaches to conducting household surveys in developing countries.
- Develop a set of recommendations for household-based economic and social data, taking into account current and planned multinational survey programs and the needs of developing countries to monitor their own development progress.
- Work with experienced data archivists and data users to establish a global information center containing household survey and metadata; establish good dissemination practices that promote analysis and research while protecting the confidentiality of survey respondents.

5. Undertake urgent improvements for MDG monitoring in 2005.

Consistent with the report of the MDG Indicators Expert Group, the following actions are proposed:

- A review of the principal MDG indicators for poverty, education, health, the environment, and global partnership should be undertaken by working groups composed of experts from participating agencies, which would report back to the MDG Indicators Expert Group in fall 2004 with recommendations for improvements or changes to be made in the MDG indicators after 2005.
- Establishment of a small, interagency editorial board to work with the Office of the Secretary General on the production of a five-year review of the MDGs in 2005.
- Provide training and tools to increase understanding of the MDGs at the national level and to improve country capacity to monitor and report on MDGs and other national goals. This would include UNDP's planned dissemination of the DevInfo data system and associated training modules.

6. Increase accountability of the international statistical system.

- Adopt a statement of principles describing the responsibilities of international organizations for carrying out their official statistical activities. Encourage all international agencies to adopt the statement of principals as core values guiding their activities.

- To further improve the coordination of interagency activities, establish a mechanism through which international agencies would report on their core work program and exchange views on improvements needed. The UN Committee for Coordination of Statistical Activities, in which membership is open to all official statistical agencies, could provide a suitable forum for organizing this activity.
- Systematically collect information on current and planned levels of international spending on statistical activities by agency, by functional area and by intended results. This information would be used to assess the effectiveness of current spending and to identify areas where additional resources are required.

Annex 2: Methodology for Calculating Statistical Capacity Assessment Indicators

I. Statistical Practice

Assessment indicators	1	0	Max. score
1. National accounts base year	=1993 or annual chain linking	Otherwise	1
2. Balance of payments manual in use	Balance of Payments Manual, the fifth edition	Otherwise	1
3. External debt reporting status	Actual or preliminary	Otherwise	1
4. Consumer Price Index base year	=1993 or annual chain linking	Otherwise	1
5. Production index	Produced and available from IMF	Otherwise	1
6. Export/import prices	Produced and available from IMF	Otherwise	1
7. Government finance accounting concept	Consolidated central government accounts	Otherwise	1
8. Enrolment reporting to UNESCO	Annual or missed reporting only once in the last 4 years	Otherwise	1
9. Vaccine reporting to WHO	Nationally reported data on measles vaccine coverage consistent with WHO estimates	Otherwise	1
10. IMF's Special Data Dissemination Standard	Subscribed	Otherwise	1
		Maximum total score is 10 (or 100%)	

II. Data Collection

Assessment indicators	2	1	0	Max. score
1. Periodicity of population census	=10 years		Otherwise	2
2. Periodicity of agricultural census	=10 years		Otherwise	2
3. Periodicity of poverty related surveys (IES, LSMS, etc.)	= 3 years	= 5 years	Otherwise	2
4. Periodicity of health related surveys (DHS, MICS, Priority survey, etc)	= 3 years	= 5 years	Otherwise	2
5. Completeness of vital registration system	Complete		Otherwise	2
			Maximum total score is 10 (or 100%)	

III. Indicator Availability

Assessment indicators	3	2	1	0	Max. score
1. Periodicity of income poverty indicator	= 3 years	= 5 years	> 5 years	Otherwise	3
2. Periodicity of child malnutrition indicator	= 3 years	= 5 years	> 5 years	Otherwise	3
3. Periodicity of child mortality indicator			National or international estimates available	Otherwise	1
4. Immunization indicator			Annual	Otherwise	1
5. HIV/AIDS indicator			National or international estimates available	Otherwise	1
6. Periodicity of maternal health indicator	= 3 years	= 5 years	> 5 years	Otherwise	3
7. Periodicity of gender equality in education indicator	= 3 years	= 5 years	> 5 years	Otherwise	3
8. Primary completion indicator			At least one observation between 1998-2002	Otherwise	1
9. Access to water indicator			National or international estimates available	Otherwise	1
10. Periodicity of GDP growth indicator	Annual	= 1.5 years	> 1.5 years	Otherwise	3
				Maximum total score is 20 (or 100%)	

Annex 3: Methodology for Reviewing JSAs

JSAs were reviewed for their discussion of statistical capacity, and to facilitate analysis comments were grouped into four areas: the institutional arrangements for statistical activities (institution); the adequacy of data sources (data); the selection of indicators for monitoring PRS progress (indicators); and the capacity to evaluate and formulate policy (analysis and use). JSAs were placed into one of three categories by assessing comments against detailed criteria in each area, as follows:

No constraint:	No deficiencies were found against any criteria in that area.
Significant constraint:	A severe deficiency noted on at least one criterion in that area, and deficiencies noted on multiple criteria. This rating implies that only some criteria are met, and significant efforts are needed to make improvements.
Some constraint:	A single minor deficiency in that area. This rating implies that the relevant criteria are mostly met, even though some improvement is still needed.

The results of this analysis for the 38 JSAs reviewed are shown in the table below. Most JSAs provide some commentary on statistical capacity in all four areas, although it should be noted that about a third do not provide an assessment of the institutional arrangements for statistical activities — probably the hardest area to evaluate without in-depth review. It should also be noted that the quality of data, diagnosis, and analysis in PRSPs varies widely among countries, and in preparing the JSA, staff tend to focus on the issues that are most relevant in the country context. JSAs may not therefore comment on all the detailed criteria.

Proportion of JSAs noting:	**Institution**	**Data**	**Indicators**	**Analysis & use**
No constraint	3%	5%	0%	5%
Some constraint	16%	42%	63%	37%
Significant constraint	47%	53%	34%	45%
Unknown/no discussion	34%	0%	3%	13%

The following detailed criteria were used in the assessment, based on issues listed in the JSA guidelines (these are listed in italics).

Institution

- *Are current and proposed monitoring and evaluation systems adequate and sustainable?*
  - *Adequacy of efforts to improve data collection and analysis.*
  - *Transparency of arrangements for, and results of, monitoring the PRSP, including service delivery to the poor.*
- *Use of participatory methods of monitoring.*
- *Accessibility of data for policy analysis, especially outside government*.
- Involvement of key government agencies and civil society in the monitoring and evaluation process, and dissemination of results to all stakeholders.

- Development of a coherent statistical activity plan including an appropriate mix of survey and administrative data, quantitative and qualitative data, all undertaken at regular periodicity.

Data

- *How adequate are existing poverty data?*
  - *Extent of disaggregation of poverty data by regions and by demographic groups, including by gender.*
  - *Degree to which quantitative data were complemented by qualitative information.*
- *How well have the nature and determinants of poverty outcomes (income and non-monetary dimensions) been identified? Have trends in key poverty determinants and outcomes been presented?*
  - *Extent of income/consumption and other dimensions of poverty (health, including environmental diseases, education, natural resource degradation, vulnerability, disempowerment) and their evolution over time.*
  - *Distribution of assets of various types—natural, physical, financial, and human.*
- *Is the allocation of expenditures consistent with the strategic priorities?*
  - *Comprehensiveness of budget data—fiscal data is adequate to track poverty reduction spending.*
- No major quality concern on key statistics.
- National accounts, trade, and balance of payment data are produced timely in accordance with internationally accepted standards.
- Data is also available at some sub-national level.
- Quality administrative data is available annually for health, education, and agriculture sectors.

Indicators

- *Does the PRSP define medium- and long-term goals for poverty reduction outcomes (monetary and non-monetary), establish indicators of progress, and set annual and medium-term targets? Are these indicators and targets appropriate given the assessment of poverty and the institutional capacity to monitor? And are they consistent with the policy choices in the strategy?*
  - *Selectivity in the choice of monitorable indicators and targets, in line with priority public actions and capacity.*
  - *Inclusion of indicators related to the MDGs, recognizing that the appropriate indicators, as well as specific targets, will vary among countries.*
  - *Indicators and targets that appropriately capture disparities by social group, gender, and region.*
- Consist of a good mix of indicators measuring every phase on the result chain—inputs, outputs, intermediate outcomes, longer-term outcomes, and impacts.

Analysis & use

- *Adequate use of results monitoring and evaluation in policy formulation.*
- *To what extent have the growth and distributional impacts of past policies and programs been assessed?*
  - *Macroeconomic policies, including the ability to respond to exogenous shocks.*

- *Structural and sectoral policies, including the distributional impacts of past reforms and policies affecting private sector development, the operation of product and factor markets, environmental management.*
- *Equity, effectiveness, and efficiency of existing pattern of public expenditure, service delivery, and systems for budget management, financial management, and procurement.*
- *Policies with regard to gender inclusion, and social inclusion. Make good use of available data to input in policy formulation.*

Annex 4: Example of a Statistical Capacity Country Profile

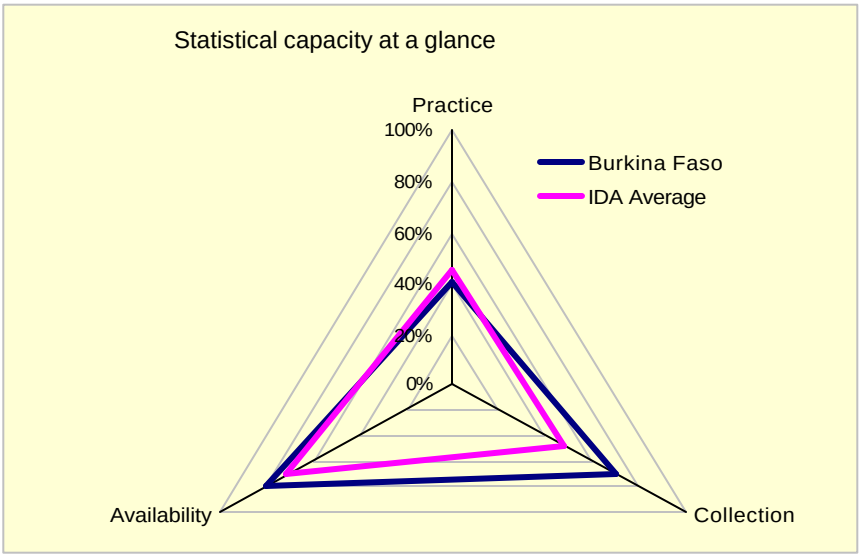
Burkina Faso

Basic Country Information

Region	AFR
Population	11.8 million
GNI per capita	$US 300

Millennium Development Goals

Poverty	Seriously off-track
Education	Seriously off-track
Gender	Seriously off-track
Child mortality	Seriously off-track
Maternal mortality	Seriously off-track
Environment	No data



Statistical Information

Statistical practice	Statistical law	Law 040/96/ADP of November 8, 1996
	Statistical master plan / statistical strategy	Cahier de charges statistiques et programme national statistique (2000-2004)
		Schéma Directeur de la Statistique du Burkina Faso 2004-2009
	National accounts	1990 (base year)
	Balance of payments	BPM4 (manual in use)
	External debt	Actual
	Import / export prices	Not available
	CPI	1996 (base year)
	Production index	Not available
	SDDS/GDDS	GDDS subscriber
	DQAF Report	Not available
Data collection	Population census	1996 (latest year)
	Vital registration system	Coverage not complete
	Agricultural census	1993 (latest year)
	Household surveys	Priority Survey (2003, 1998, 1994); DHS (2003, 1998, 1992); Enquête 1-2-3 (2003); Enquête permanente agricole (Annual); Enquête sur les dépenses des ménages de Ouagadougou (1996); MICS (1996)
World Bank statistical projects	STATCAP	Development of the National Statistical System (IBRD/IDA-STATCAP, 2004)
	High statistical content	Statistical Master Plan (TFSCB, 2003)
	Low statistical content	None
Statistical institutions/ publications	CSO	Institut national de la statistique et de la démographie (INSD) [1]
	CSO website	http://www.insd.bf
	Contact/email	Bamory Ouattara, Director General, National Institute of Statistics and Demography (insd@cenatrin.bf)
	Statistical publications	Lists of publications are available from IMF's GDDS website [2]
Policy papers	PRSP	2000, Progress Report in 2002
	CAS	2000, Progress Report in 2003 (every 3 years)
	Article IV Staff Report	2003
	MDG report (UNDP)	In preparation
Other	Comment	As of 2003, INSD has a total staff of 78, of which 49 are technical staff.

Notes: 1. Other relevant institutions:
Afristat (http://www.afristat.org/)
Investir en Zone Franc (http://www.izf.net/izf/index.htm)
2. Major publications by CSO

Annual	L'Annuaire Statistique du Burkina Faso; Le Bulletin d'Informations statistiques et économiques; Les Comptes Nationaux; La note Rapide de Conjoncture; La Note Rapide sur les Prix; Le Tableau de bord social; Le Tableau de bord de l'Economie; La Note Rapide sur la Production industrielle; L'Annuaire du commerce extérieur
Monthly	Harmonized Consumer Price Index for WAEMU Member Countries

Annex 5: Key Statistical Processes and Issues in IDA Countries

Key processes

Coordination and leadership. Most countries have established statistical offices, but there are often weaknesses in their ability to coordinate producers, maintain integrity, standards, and comparability, and interact with and assess user priorities. The result is data that are incomparable or inconsistent, of poor quality, and, in extreme cases, irrelevant. Improving this situation requires improvements in coordination and management arrangements of statistical systems, to provide incentives for producers to work more closely with clients and with other producers. Solutions may include changes to legislation, improved arrangements for user consultation and liaison, and the development and implementation of national statistical development strategies.

Censuses. As with household surveys, most countries have experience of taking censuses, but the cost of census taking is relatively high, particularly for the poorest countries, and it is often difficult to maintain the skills and expertise needed from one census to the next. These problems have been recognized in the Marrakech Action Plan for Statistics, which calls for the international community to develop a strategy for funding and conducting censuses for the next global census round in 2010.

Household surveys. Household survey capacity is an important area for the IDA Results Measurement System; eight of the proposed outcome indicators are normally obtained from household surveys. One success of international action over the past few years has been the development of capacity for fieldwork operations in most countries. However, surveys are often infrequent; they do not form part of regular budgeted activities and they are often relatively expensive, particularly if complex variables, such as income, consumption, or mortality are required. Although many countries need to establish genuine national household survey capacity, the Marrakech Action Plan for Statistics recognizes the role of the international community in supporting household survey programs and recommends the establishment of an international household survey network. The objective is to find more efficient methods to support household surveys and to make best use of data produced from those surveys. Because of its comparative advantage in this area, DECDG is taking the lead in establishing this network.[24] Additional investment in household surveys is required in the short term to fill important data gaps and increase the frequency of key statistics.

Economic statistics. The production of basic economic statistics, including national accounts, price statistics, production statistics, and trade statistics, is a well-established function of most statistical offices. But there are often problems, for example with the collection of production data from businesses, with maintaining accurate business registers, and with technical capacity for implementing international standards. Countries are often in need of technical support and advice, help with the development of appropriate standards, and investment in more efficient and effective data collection methods, particularly in the household and agricultural sectors.

Sectoral statistics. Most countries have systems for delivering health and education systems, from which timely statistical data can be collected at low cost and used for decision-making at local community level. But there are quality issues, because many administrative systems are relatively weak, and there are data reporting incentives that may bias results. Investment is needed to develop improved reporting systems. Depending on country circumstance, there are also needs for specific

[24] See http://www.internationalsurveynetwork.org

surveys or data collection instruments on specific topics. In many IDA countries, for example, household-based farming activities are important, yet agricultural production statistics and environmental data are relatively weak.

Dissemination. A common complaint of data users is the inaccessibility of data, either in aggregated form or in the form of anonymized records from surveys. Many IDA countries operate outdated and costly publication methods, and have not been able to take advantage of new electronic methods for data dissemination. With notable exceptions, many IDA countries do not utilize the Internet for publishing data, and delays in publishing data are still attributed to problems with printing processes. Solutions include investment in skills and equipment to take advantage of new techniques for disseminating statistical data.

Relationship of key processes to IDA Results Measurement System

Process	**Relationship to IDA14 indicators**
Coordination and leadership	Important for all nationally produced indicators, particularly to ensure and assess quality, and provide comparable estimates over time
Censuses	Required to estimate denominator in calculations *of primary school completion rate* and *GDP per capita*. Also important in many IDA countries in taking samples for household surveys.
Household surveys	*Proportion of population living on less than $1 a day* *Child mortality* *Proportion of births attended by skilled health personnel* *Ratio of girls to boys at school* (although normally estimated from school records, where available) *Access to improved water source* *Access to all-weather road* *Household electrification rate*
Economic statistics	Directly: *GDP per capita* Good price statistics also required for estimating *proportion of population living on less than $1 a day*
Sectoral statistics	*HIV prevalence rates*, from health information systems *Primary school completion*, from school information systems *Ratio of girls to boys at school*, from school information systems *Proportion of births attended by skilled health personnel*, from health information systems (although often difficult to assess from health records and household surveys are a common source) *Telephone access* Many sectoral statistics also contribute to measurement of *GDP* (e.g. agricultural and employment data)
Dissemination	Important for all nationally produced indicators

Annex 6a: Household Surveys in IDA Countries 1999-2005

Country	Population	Statistical capacity score (%)	% of MDG indicators with an estimate in 2000-2002	1999	2000	2001	2002	2003	2004	2005
Countries with population greater that 1 million										
Africa										
Angola	13.5	35	69		M				Q	M
Benin	6.7	55	73			D	**C**, Q			(D), M
Burkina Faso	12.1	63	66					Q, D		
Burundi	7.2	42	80		M		Q			M
Cameroon	16.1	48	80		M	I			D	
Central African Rep.	3.9	27	63		M			**C**		M
Chad	8.6	53	70		M				D	
Congo, Dem. Rep.	53.2	38	67			M			Q	M
Congo, Rep.	3.8	37	68		M					
Côte d'Ivoire	16.8	75	63	D	M				Q	M
Eritrea	4.4	37	76				D			M
Ethiopia	68.6	65	90	I	D					D
Gambia, The	1.4	52	70		M			**C**		(D), M
Ghana	20.4	52	69		**C**			D	Q	
Guinea	7.9	58	57	D			I	M	D	
Guinea-Bissau	1.5	32	55		M		Q			M
Kenya	31.9	62	73	**C**	M			D		
Lesotho	1.8	73	69		M	**C**	Q		Q, D	
Liberia	3.4	15	57							M
Madagascar	16.9	63	83	I	M	I		D		
Malawi	11	63	73				Q		D, L	
Mali	11.7	52	69			Q, D				
Mauritania	2.7	55	79		**C**, I	D			Q	
Mozambique	18.8	58	69		Q		Q	D	Q	
Niger	11.8	55	73		M	**C**	Q		Q	
Nigeria	135.6	43	62	D	M		Q	D, I		
Rwanda	8.3	48	77		M		**C**	Q	D	
Senegal	10	77	80	D	M	Q, I	**C**		D	
Sierra Leone	5.3	25	61		M			I	Q	
Somalia	9.6	7	46	M						
Sudan	33.5	38	67		M					
Tanzania	35.9	58	57		I		**C**		Q, D	
Togo	4.9	50	73		M				Q	
Uganda	25.3	57	70	I			**C**, I		D	(D)
Zambia	10.4	62	77	M	**C**		D, I			D
Zimbabwe	13.1	58	72	D			**C**			
East Asia and the Pacific										
Cambodia	13.4	48	79	I	D					
Indonesia	214.5	78	90		**C**, M		D			
Lao PDR	5.7	60	69		M					
Mongolia	2.5	68	64	I	**C**, M, I	I				
Myanmar	49.4	47	66		M					M
Papua New Guinea	5.5	48	62		**C**					
Vietnam	81.3	67	77	**C**	M		D, L			
Europe and Central Asia										
Albania	3.2	77	86		I, M	**C**	L	L	L	
Armenia	3.1	82	76	I	D	**C**, I				
Azerbaijan	8.2	73	86	**C**	M	I	I			
Bosnia & Herzegovina	4.1	37	67		M				L	
Georgia	5.1	72	79	I	I, M	I	**C**, I			

Country	Population	Statistical capacity score (%)	% of MDG indicators with an estimate in 2000-2002	1999	2000	2001	2002	2003	2004	2005
Kyrgyz Rep.	5.1	72	71	**C**, I	I	I	I			
Moldova	4.2	55	68	I	I, M	I	I	I		
Serbia & Montenegro	8.1	47	52		M		**C**, I	I		
Tajikistan	6.3	60	77		**C**	M		I		
Uzbekistan	25.6	57	83		I, M		D			
Latin America and the Caribbean										
Bolivia	9	58	79		M	**C**		D	L	
Haiti	8.4	37	66		D	I		**C**		
Honduras	7	58	76			**C**			L	
Nicaragua	5.5	82	86			D, L				
Middle East and North Africa										
Yemen, Rep.	19.2	47	55							
South Asia										
Afghanistan	28.8	17	54		M			M	**C**	
Bangladesh	138.1	70	93		M	**C**			D	
India	1,064.4	83	76	D	M	**C**				
Nepal	24.7	63	76			**C**, D		L		(D)
Pakistan	148.4	65	66		M	I			Q	
Sri Lanka	19.2	70	72	I		**C**				
Countries with population less than 1 million										
Africa										
Cape Verde	0.5	n/a	56	I	**C**	I				
Comoros	0.6	n/a	62		M			**C**		
Sao Tome and Principe	0.2	n/a	48		I	**C**				
East Asia and the Pacific										
Kiribati	0.1	n/a	40							
Samoa	0.2	n/a	62			**C**				
Solomon Islands	0.5	n/a	38	**C**						
Timor-Leste	0.8	n/a	40			L	M		**C**	
Tonga	0.1	n/a	56							
Vanuatu	0.2	n/a	46							
Latin America and the Caribbean										
Dominica	0.1	n/a	52			**C**				
Grenada	0.1	n/a	42			**C**				
Guyana	0.8	n/a	60		M		**C**			
St Lucia	0.2	n/a	36			**C**				
St Vincent	0.1	n/a	40			**C**				
Middle East and North Africa										
Djibouti	0.7	n/a	56							
South Asia										
Bhutan	0.9	n/a	52		M			I		
Maldives	0.3	n/a	59		**C**					

Key: C: Population Census
D: DHS (Demographic and Health Survey – USAID/Macro International))
I: Income and expenditure survey
L: LSMS (Living Standards Measurement Study Survey – World Bank)
M: MICS (Multiple Indicator Cluster Survey – UNICEF)
Q: CWIQ (Core Welfare Indicators Questionnaire – World Bank)

See Annex 6b for a description of each of these surveys.

Source: World Bank Development Data Platform (DDP), and staff estimates based on information supplied by survey sponsors

Annex 6b: Description of Main Internationally Sponsored Household Surveys

Population Census

Population censuses are household surveys that attempt to enumerate all households in a country. They are capable of providing results for all subgroups of the population, including small areas. They collect data on a limited number of demographic indicators, using short questionnaires. In many developing countries, they also provide the basis for taking samples for household sample surveys. Field operations are normally conducted during a very short period using large numbers of enumerators. Censuses are seen by most governments as essential operations, and normally conducted every ten years. Besides their role as household surveys with such special features, censuses are an essential element of a country's household survey system, because they are needed to develop sample frames for all other household surveys.

Demographic and Health Survey (DHS)

The DHS survey model follows a long tradition of demographic research dating back to the 1970–84 World Fertility Survey (WFS) program. Its original intention was to produce internationally comparable measures of fertility, mortality, contraceptive use, maternal and child health, and other demographic indicators, but its goals have broadened to include urgent topics such as HIV/AIDS, STDs, anthropometrics, and child malnutrition; and to meet frequent requests of participating countries for data on access to health services and intra-family violence. A typical DHS (of 5,000 households) uses different questionnaires for women and men, requires about eight months of preparation, including training, and is fielded for three months using a staff of fifty field workers. The DHS has a reputation for technical excellence in questionnaire and sampling design–including the routine publication of sampling errors for all relevant indicators. Data management is very standardized, and includes a well-specified set of consistency controls to be applied in the data entry and cleansing phases. DHS datasets are available to researchers through a well-documented and accessible database. Since 1985, technical supervision of the DHS program has been managed by Macro International, a private firm in the U.S.

Income and Expenditure Survey (IES)

Income and expenditure surveys have several objectives. The first is to find the shares of different commodities in the budget of households, to define the composition of the baskets used in calculating Consumer Price Indexes. The second is to provide direct measures of household consumption for the system of national accounts. The third is to calculate poverty lines and poverty incidence. In many IESs, household expenditures are collected using diaries, which record each individual purchase made by the household during a specific period, and questionnaires based on expenditures made by the household in the past. IESs in various countries differ in the extent to which they resort to the use of each kind of instrument. This type of survey is generally fielded for 12 months, to take into account the seasonal variations of consumption patterns. Sample sizes range from 2,000 to 20,000 households, depending on the required level of geographical disaggregation.

Living Standards Measurement Study Survey (LSMS)

The LSMS survey instrument was developed by the World Bank in the 1980s as a means to help policymakers understand the determinants of observed social and economic outcomes and, thus help their ability to design effective programs and policies. The LSMS is designed to provide a comprehensive picture of household welfare and the factors that affect it. The LSMS provide analysts with data that allows them to assess: welfare levels and distribution; the links between welfare and the characteristics of the poor; the levels of access to and use of social services; the impact of government programs; and the causes of observed social outcomes. The LSMS typically

incorporates data collection at the individual, household, and community level. The survey instruments are designed in close consultation with policymakers to ensure that data are relevant. Questionnaires, especially the one at the household/individual level, tend to be quite complex. To maintain high quality data, samples are kept small (2,000–5,000 households) to minimize non-sampling error. Substantial efforts and resources are devoted to data quality (such as month-long interviewer training, use of direct informants, concurrent data entry with in-field corrections taking place at the households, low supervisor-interviewer ratios).

Multiple Indicator Cluster Survey (MICS)

The MICS instrument has been developed by UNICEF to be low-cost household survey that quickly generates data on key welfare indicators that are inadequately monitored in other data collection systems, and has been implemented in more than 100 countries since 1995. UNICEF, with partner agencies, defined a set of indicators to guide the assessment process (UNICEF 1995). Indicators are meant to monitor progress in health, education and welfare, and include data on the welfare of children in developing countries (e.g., child labor, birth registration, disability, orphans/alternative family care, and early child development). In collaboration with a number of other agencies, UNICEF has harmonized the MICS with other major survey programs (for instance, the DHS) to improve the generation of comparable and complementary data across countries. MICS does not allow measurement of poverty based on income, but they can be used to generate population profiles regarding health, education and child labor indicators, which can be used as proxy variables for poverty status.

Core Welfare Indicator Questionnaire (CWIQ) survey

The CWIQ is a household survey designed to measure changes in key social indicators for different population groups: specifically, the focus is on indicators of access to, utilization of, and satisfaction with, core social and economic services. Typically, CWIQ surveys uses methods designed to get reliable national estimates of these indicators in a timely fashion. These include a large sample, a simple questionnaire with multiple-choice questions, high-quality fieldwork, the use of optical mark and character recognition during data entry, pre-programmed validation procedures, and standardized outputs. The CWIQ survey was developed by the World Bank, in close collaboration with UNDP, UNICEF, and the ILO.

Annex 6c: MDG Indicators Collected through Household Surveys

Goal	Indicator	LSMS	DHS	MICS	CWIQ
1	**1. Proportion of population below $1 (PPP) per day**	●	○	○	○
	2. Poverty gap ratio [incidence x depth of poverty]	●	○	○	○
	3. Share of poorest quintile in national consumption	●	○	○	○
	4. Prevalence of underweight children under-five years of age	●	●	●	○
	5. Proportion of population below minimum level of dietary energy consumption	●	○	○	○
2	6. Net enrolment ratio in primary education	●	●	●	●
	7. Proportion of pupils starting grade 1 who reach grade 5	●	●	●	●
	8. Literacy rate of 15-24 year-olds	●	◉	●	●
3	**9. Ratios of girls to boys in primary, secondary, and tertiary education**	●	●	●	●
	10. Ratio of literate females to males of 15-24 year-olds	●	●	●	●
	11. Share of women in wage employment in the non-agricultural sector	●	◉	○	◉
4	**13. Under-five mortality rate**	◉	●	●	○
	14. Infant mortality rate	◉	●	●	○
	15. Proportion of 1 year-old children immunized against measles	●	●	●	●
5	16. Maternal mortality ratio	◉	●	●	◉
	17. Proportion of births attended by skilled health personnel	●	●	●	◉
6	**18. HIV prevalence among 15-24 year old pregnant women**	○	◉	○	○
	19. Condom use rate of the contraceptive prevalence rate	●	●	○	○
	20. Number of children orphaned by HIV/AIDS	◉	◉	○	○
	22. Proportion of population in malaria risk areas using effective malaria prevention and treatment measures	◉	●	○	◉
7	29. Proportion of population using solid fuels	●	◉	○	●
	30. Proportion of population with sustainable access to an improved water source, urban and rural	●	●	●	●
	31. Proportion of urban population with access to improved sanitation	●	●	●	●
	32. Proportion of households with access to secure tenure (owned or rented)	●	◉	○	◉
8	45. Unemployment rate of 15-24 year-olds, each sex and total	●	◉	○	●
	47. Telephone lines and cellular subscribers per 100 population	◉	◉	○	◉
	48. Personal computers in use and Internet users per 100 population	◉	◉	○	◉
Additional IDA RMS indicators					
	Access of rural population to an all-season road	●	○	○	◉
	Household electrification rate	●	●	○	●

Key: ● Indicator can be measured with this survey
◉ Indicator can be measured with this survey, but some changes to methodology may be required
○ Indicator would not normally be estimated with this survey

Note: IDA 14 RMS indicators – or most closely related MDG indicator – are shown in bold. Only indicators that can be measured with household surveys are shown; for some indicators shown, data may also be obtained from administrative sources.

Source: Household Surveys and the Millennium Development Goals, Juan Muñoz and Kinnon Scott, 2004.