Note on the Statistical Capacity Indicator [1]

Statistical Capacity Indicator provides an overview of the statistical capacity of over 140 developing countries. It is based on a diagnostic framework developed with a view to assessing the capacity of national statistical systems using metadata information generally available for most countries, and monitoring progress in statistical capacity building over time. The framework has three dimensions: statistical methodology; source data; and periodicity and timeliness.

For each dimension, a country is scored against specific criteria, using information available from the World Bank, IMF, UN, UNESCO, and WHO. A composite score for each dimension and an overall score combining all three dimensions are derived for each country on a scale of 0-100. A score of 100 indicates that the country meets all the criteria.

The first dimension, *statistical methodology*, measures a country's ability to adhere to internationally recommended standards and methods. This aspect is captured by assessing guidelines and procedures used to compile macroeconomic statistics, and social data reporting and estimation practices. Countries are evaluated against a set of criteria such as use of an updated national accounts base year, use of the latest BOP manual, external debt reporting status, subscription to IMF's Special Data Dissemination Standard, and enrolment data reporting to UNESCO.

The second dimension, *source data*, reflects whether a country conducts data collection activities in line with internationally recommended periodicity, and whether data from administrative systems are available and reliable for statistical estimation purposes. Specifically, the criteria used are the periodicity of population and agricultural censuses, the periodicity of poverty and health related surveys, and completeness of vital registration system coverage.

The third dimension, *periodicity and timeliness*, looks at the availability and periodicity of key socioeconomic indicators, of which nine are MDG indicators. This dimension attempts to measure the extent to which data are made accessible to users through transformation of source data into timely statistical outputs. Criteria used include indictors on income poverty, child and maternal health, HIV/AIDS, primary completion, gender equality, access to water and GDP growth.

This multi-dimensional approach is based on the notion that producing and disseminating reliable, relevant and timely statistics requires a certain level of capacity in all dimensions. Any imbalance would point to weaknesses in some aspects of the statistical process. For example, a high level of periodicity and timeliness accompanied by low levels of statistical methodology and source data may imply that indicators are not derived using recommended methodologies and timely source data. This type of assessment would shed light on data quality and areas that need improvements at the country and global levels.

The following sections show summary and detailed descriptions of the assessment criteria.

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[1] Individual countries' scores can be viewed online from the Bulletin Board on Statistical Capacity: http://www.worldbank.org/data/bbsc

Statistical Capacity Indicator: Criteria Summary Description

1. Statistical Methodology

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

2. Source Data

Indicators	1	1/2	0	Max. score	Weight
1. Periodicity of population census	≤10 years		Otherwise	1	20
2. Periodicity of agricultural census	≤10 years		Otherwise	1	20
3. Periodicity of poverty related surveys (IES, LSMS, etc.)	≤ 3 years	≤ 5 years	Otherwise	1	20
4. Periodicity of health related surveys (DHS, MICS, Priority survey, etc)	≤ 3 years	≤ 5 years	Otherwise	1	20
5. Completeness of vital registration system	Complete		Otherwise	1	20
				Maximum total score is 100	

3. Periodicity and Timeliness

Indicators	1	2/3	1/2	1/3	0	Max. score	Weight
1. Periodicity of income poverty indicator	≤ 3 years	≤ 5 years		> 5 years	Not available/ accessible	1	10
2. Periodicity of child malnutrition indicator	≤ 3 years	≤ 5 years		> 5 years	Not available/ accessible	1	10
3. Periodicity of child mortality indicator	National or international estimates available				Not available/ accessible	1	10
4. Periodicity of Immunization indicator	Annual				Not annual/ available/ accessible	1	10
5. HIV/AIDS indicator	National or international estimates available for at least one year out of the last 3 years				Not available/ accessible	1	10
6. Periodicity of maternal health indicator	≤ 3 years	≤ 5 years		> 5 years	Not available/ accessible	1	10
7. Periodicity of gender equality in education indicator	Observed for at least 5 out of 5 latest years	Observed for at least 3 out of 5 latest years		Observed for 1 out of 5 latest years	Not available/ accessible	1	10
8. Primary completion indicator	Observed for at least 5 out of 5 latest years	Observed for at least 3 out of 5 latest years		Observed for 1 out of 5 latest years	Not available/ accessible	1	10
9. Access to water indicator	Observed for 2 out of 6 latest years		Observed for 1 out of 6 latest years		Not available/ accessible	1	10
10. Periodicity of GDP growth indicator	Annual	≤ 1.5 years		> 1.5 years	Not available/ accessible	1	10
							Maximum total score is 100

3

Statistical Capacity Indicator: Criteria Detailed Description

1. Statistical Methodology

National accounts base year
National accounts base year is the year used as the base period for constant price calculations in the country's national accounts. It is recommended that the base year of constant price estimates be changed periodically to reflect changes in economic structure and relative prices. Score is 1 if annual chain linking is adopted or the base year is within the last 10 years; otherwise, 0.

Balance of payments manual in use
The Balance of Payments Manual serves as an international standard for the compilation of balance of payments statistics. The manual has evolved to meet changing economic and financial environment and analytic requirements. The first edition was published in 1948 and successive editions in 1950, 1961, 1977 and 1993. Score is 1 for countries adopting the latest edition (BPM5); otherwise, 0.

External debt reporting status
The principal sources of external debt statistics are reports submitted to the World Bank through its Debtor Reporting System by reporting countries. Data quality and coverage vary among countries and from year to year. The reporting status shows, for the latest series, whether data were used as reported (actual), data were preliminary and included an element of staff estimation (preliminary), or data are staff estimates (estimate). Score is 1 for actual and preliminary; otherwise, 0.

Consumer price index base year
Consumer Price Index serves as indicators of inflation and reflects changes in the cost of acquiring a fixed basket of goods and services by the average consumer. Weights are usually derived from consumer expenditure surveys and the CPI base year refers to the year the weights were derived. It is recommended that the base year be changed periodically to reflect changes in expenditure structure. Score is 1 if the base year is within the last 10 years; otherwise, 0.

Industrial production index
Industrial production index measures changes in industrial production and is widely used for the observation and analysis of the current economic activity. Monthly survey on industrial production of index allows identifying the turning points in economic development at an early stage. Score is 1 if the index is available monthly; otherwise, 0.

Import and export prices
Import and export price indexes measure changes in the price of goods and services in international trade. They are used to deflate the value of imports and exports. Import price index is also used as an indicator of future domestic inflation. Score is 1 if the index is available monthly or quarterly; otherwise, 0.

Government finance accounting concept
Government finance accounting concept describes the accounting basis for reporting central government financial data. For many countries government finance data have been consolidated into one set of accounts capturing all the central government's fiscal activities. Budgetary central government accounts do not necessarily include all central government units, the picture they provide of central government activities is usually incomplete. Score is 1 for consolidated accounts; otherwise, 0.

Enrollment reporting to UNESCO
UNESCO Institute of Statistics compiles data on education based on official responses to surveys and from reports provided by education authorities in each country. As the recommended periodicity of these data is annual, annual reporting form countries is considered a good practice. Score is 1 if the country reported at least 3 times in the last 4 years; otherwise, 0.

Vaccine coverage reported to WHO/UNICEF
WHO and UNICEF collect and review data available on national immunization coverage. Then estimates on the level of immunization coverage are made by using officially reported data, survey results, scientific literature, and by taking account of potential biases and consultation with local experts. The gap between the international estimates and the government official estimates therefore suggests that the estimation method adopted by the country differs from the internationally recommended practice. Score is 1 if the government official estimate on measles vaccine coverage is consistent with the WHO/UNICEF estimate; otherwise, 0.

IMF's Special Data Dissemination Standard
The Special Data Dissemination Standard (SDDS) was established by the IMF for member countries that have or that might seek access to international capital markets, to guide them in providing their economic and financial data to the public. Although subscription is voluntary, the subscribing member needs to be committed to observing the standard and provide information about its data and data dissemination practices (metadata). The metadata are posted on the IMF's Dissemination Standards Bulletin Board. The SDDS is expected to enhance the availability of timely and comprehensive data and improve the functioning of financial markets. The score is 1 for subscribing countries; otherwise, 0.

2. Source Data

Periodicity of population census
Population censuses collect data on the size, distribution and composition of population and information on a broad range of social and economic characteristics of the population. It also provides sampling frames for household and other surveys. It is recommended that population censuses be conducted at least every 10 years. Score is 1 if the country had a census at least once in the last 10 years; otherwise, 0.

Periodicity of agricultural census
Agricultural censuses collect information on agricultural activities, such as agricultural land use, employment and production, and provide basic structural data and sampling frames for agricultural surveys. It is recommended that agricultural censuses be conducted at least every 10 years. Score is 1 if the country had a census at least once in the last 10 years; otherwise, 0.

Periodicity of health survey
Health surveys collect information on various aspects of health of populations, such as health expenditure, access, utilization, and outcomes. They typically include Demographic and Health Surveys, Core Welfare Indicator Questionnaire surveys, Multiple Indicator Cluster Survey, Integrated Surveys, Living Standard Measuring Surveys, Priority Surveys and other health related surveys. It is recommended that health surveys be conducted at least every 3 to 5 years. Scores are 1, 1/2, and 0 if a survey is conducted at a frequency of 3 years or less, 5 years or less, and over 5 years, respectively.

Periodicity of poverty survey
Poverty surveys collect data on household income, consumption and expenditure, including income in kind. They typically include income, expenditure, and consumption surveys, household budget surveys, Integrated Surveys, Living Standard Measuring Surveys, and other poverty related surveys. It is recommended that poverty surveys be conducted at least every 3 to 5 years. Scores are 1, 1/2, and 0 if a survey is conducted at a frequency of 3 years or less, 5 years or less, and over 5 years, respectively.

Completeness of vital registration system
Vital registration systems record the occurrence and characteristics of vital events pertaining to the population and serve as a main source of vital statistics. Countries with complete vital statistics registries may have more accurate and timely demographic indicators. Score is 1 if the country is judged to have complete registries of vital (birth and death) statistics by the United Nations Department of Economic and Social Information and Policy Analysis, Statistics Division; otherwise, 0.

3. Periodicity and Timeliness

Income poverty (proportion of population below US$1.25 a day)
Proportion of population below US$1.25 a day is the percentage of the population living on less than $1.25 a day at 2005 international prices. The US$1.25 poverty line is compared to consumption or income per person and includes consumption from own production and income in kind. This poverty line has fixed purchasing power across countries. This indicator measures progress toward the reduction of extreme poverty and relates to the first MDG goal to eradicate extreme poverty and hunger. Scores are 1, 2/3, and 1/3 if the periodicity of the indicator is 3 years or less, 5 years or less, and more than 5 years, respectively; otherwise, 0.

Child malnutrition (prevalence of underweight children under five)
Prevalence of underweight children under-five years of age, also known as prevalence of child malnutrition (weight for age), is the percentage of children under-five whose weight for age is less than minus two standard deviations from the median for the international reference population ages 0 to 59 months. The data are based on the World Health Organization's new child growth standards released in 2006. Child malnutrition is linked to poverty, low levels of education, and poor access to health services. Sufficient and good-quality nutrition is therefore critical for development, health, and survival of current and succeeding generations. This indicator monitors nutritional status and health in populations and relates to the first MDG aiming at reducing poverty and hunger. Scores are 1, 2/3, and 1/3 if the periodicity of the indicator is 3 years or less, 5 years or less, and more than 5 years, respectively; otherwise, 0.

Child mortality (under-five mortality rate)
Under-five mortality rate is the probability that a newborn baby will die before reaching age five, if subject to current age-specific mortality rates. The probability is expressed as a rate per 1,000. The indicator measures child survival. Survival of a child is closely linked to the provision of primary health-care services; but poverty, malnutrition, a decline in breast-feeding, maternal education, use of improved water, and inadequacy sanitation and health facilities are all associated with high child mortality. The indicator relates to the fourth MDG calling for reducing child mortality. Score is 1 if a national or international estimate is available for reference years; otherwise, 0.

Child immunization (proportion of one-year-old children immunized against measles)
The proportion of one-year-old children immunized against measles is the proportion of children aged one who received one dose of measles vaccine. A child is considered adequately immunized against measles after receiving one dose of vaccine. Immunization is an essential component for reducing under-five mortality, and it serves as a proxy to measure the coverage and the quality of the child health care system. This indicator is also related to the fourth MDG aiming at reducing child mortality. Score is 1 if the periodicity of the indicator is annual; otherwise, 0.

HIV/AIDS (prevalence of HIV, total [% of population ages 15-49])
HIV prevalence at any given age is the difference between the cumulative numbers of people who have become affected with HIV up to this age and the number who died, expressed as a percentage of the total number alive at this age. The basis of measuring infection is the incidence of HIV among people aged 15-49. HIV/AIDS is one of the world's most important killers and has its greatest impact on poor countries and poor people. This indicator relates to MDG number six to combat HIV/AIDS, malaria, and other diseases. Score is 1 if a national or international estimate is available in the last 3 years; otherwise, 0.

Maternal health (births attended by skilled health staff)
Births attended by skilled health staff are the percentage of deliveries attended by personnel trained to give the necessary supervision, care, and advice to women during pregnancy, labor, and the postpartum period, to conduct deliveries on their own, and to care for the newborns. High maternal mortality rates in many countries are the result of inadequate reproductive health care for women and inadequately spaced births. The indicator monitors the ability of the health system to provide good antenatal and postnatal care for women and relates to the fifth MDG aiming at improving maternal health, with a target of reducing by three-quarters, between 1990 and 2015, the maternal mortality ratio. Scores are 1, 2/3, and 1/3 if the periodicity of the indicator is 3 years or less, 5 years or less, and more than 5 years, respectively; otherwise, 0.

Gender equality in education (gross enrollment rate of girls to boys in primary and secondary education)
The indicator is defined as the ratio of the gross enrollment rate of girls to boys in primary and secondary education levels in both public and private schools. Women have an enormous impact on the well-being of their families and societies, but their potential is sometimes not realized because of discriminatory social norms, incentives, and legal institutions. Although their status has improved in recent decades, gender inequalities persist. Education is one of the most important aspects of human development, and eliminating gender disparity at all levels of education would help to increase the status and capabilities of women. This indicator provides a measure of equality of educational opportunity and relates to the third MDG that seeks to promote gender equality and the empowerment of women. Scores are 1, 2/3, and 1/3 if the indicator is observed for 5, 4-3, and 2-1 out of the 5 latest years, respectively; otherwise, 0.

Primary completion (primary completion rate)
Primary completion rate (PCR) is the number of students successfully completing the last year of (or graduating from) primary school in a given year, divided by the number of children of official graduation age in the population. Because of difficulties with developing data based on this definition, data analysis is generally based on the PCR proxy indicator which is the number of children reaching the last year of primary school (as defined by a country) net of repeaters. The indicator, which monitors education system coverage and student progression, is intended to measure human capital formation and school system quality and efficiency and relates to the second MDG to achieve universal primary education. Scores are 1, 2/3, and 1/3 if the indicator is observed for 5, 4-3, and 2-1 out of the 5 latest years, respectively; otherwise, 0.

Access to water (access to an improved water source)
Access to an improved water source is currently defined as the percentage of the population that can obtain at least 20 liters per person per day from an "improved" source that is within one kilometer of the user's dwelling. Improved water sources include household connection, public standpipe, borehole, protected well or spring, and rainwater collection, but do not include water provided through vendors, tanker trucks, unprotected wells, unprotected springs, and bottled water. Unsafe water and lack of basic sanitation is the direct cause of many water-related diseases in developing countries. This indicator monitors access to improved water sources based on the assumption that improved sources are likely to provide safer water and relates to the seventh MDG to ensure environmental sustainability. Scores are 1 and 1/2 if primary estimates are observed for at least 2 and 1 out of the 6 latest years, respectively; otherwise, 0.

GDP growth (GDP per capita growth)
GDP per capita is the sum of gross value added by all resident producers in the economy plus any product taxes (less subsidies) not included in the valuation of output, divided by mid-year population. Growth is calculated from constant price GDP data in local currency. Sustained economic growth increases average incomes and is strongly linked to poverty reduction. GDP per capita provides a basic measure of the value of output per person, which is an indirect indicator of per capita income. Growth in GDP and GDP per capita are considered broad measures of economic growth. Scores are 1, 2/3, and 1/3 if the periodicity of the indicator is annual, 1.5 years or less, and more than 1.5 years, respectively; otherwise, 0.