RECENT CHANGES IN POSSIBLE OUTCOMES FOR
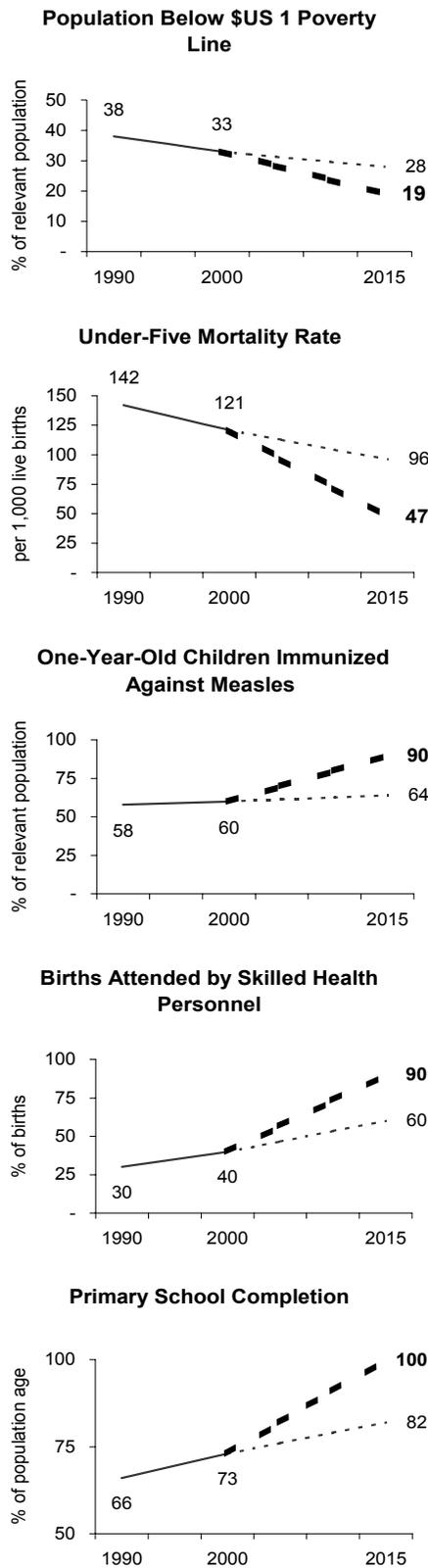## IDA14 BASELINES

1.   Despite the paucity of data, an effort has been made to monitor aggregate progress among IDA-eligible countries for the possible country outcome indicators. This assessment was made for a longer-term trend (generally since 1990), and for the most recent period (generally by comparing 2000-2002 data with 1997-1999 data).

2.   ***Longer-term Trends.*** Eleven of the 18 possible indicators are also MDG indicated. As Table A1 and Box A1 indicate, progress toward achieving most MDGs was inadequate in IDA-eligible countries in the 1990s. While the direction of change was generally positive, the pace was insufficient to achieve the 2015 targets.

3.   ***Recent Changes.*** Recent progress can be assessed for 14 of the 18 possible indicators, as indicated in Table A1. The others are relatively new indicators for which only baseline figures have been calculated. Analysis of recent changes in the 14 indicators leads to the following observations:

- Thirteen of the 14 indicators show progress in the most recent period—a favorable finding. Rates of progress vary considerably, and for some indicators—such as childhood malnutrition and primary completion school completion—progress has accelerated in recent years. This is an encouraging finding in the short term, which will need to be sustained in the longer term.

- Although real per capita income across IDA countries rose by nearly 2 percent annually over the period 1997/99-2000/02, the proportion of the population below the US$1/day poverty line in IDA countries—estimated over a shorter period (1999-2001) for far fewer IDA countries with limited new data—did not change significantly. Many factors could potentially account for this finding.[1] The Bank's Development Economics Research Group is undertaking analysis over a longer timeframe and with a comparable set of countries to more accurately assess the effect of economic growth on US$1/day poverty rates worldwide.

- Growth in aggregate GDP from agriculture also appears low, which probably means that per capita growth in rural areas was negative in recent years—although a lack of reliable data on the evolution of rural populations prevents a firm conclusion.

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[1]   The factors that could account for this include, the periods of computation are different; GDP may have increased significantly faster than household consumption expenditure; there may have been significant inequities in the way that GDP, employment, and income were distributed among consumers; and there may have been biases resulting from estimations of missing data.

Box A1. Progress Toward the MDGs in IDA Countries: Right Direction, Wrong Pace

Population Below $US 1 Poverty Line

Under-Five Mortality Rate

One-Year-Old Children Immunized Against Measles

Births Attended by Skilled Health Personnel

Primary School Completion

Estimated values for 11 of the 18 indicators in the IDA results measurement system provide an overview of changes over time and in relation to the MDGs. With the exception of HIV/AIDS and household use of solid fuels, all other MDG indicators show progress between 1990 and 2000 (see table below).

Of the 11 MDG indicators for which time series data are available, 8 are directly related to quantifiable targets expressed in the Millennium Declaration. It is therefore possible to measure growth between 1990 and 2000 in the IDA countries and compare this historic rate with the overall rate required to reach the MDG targets. This rate can be calculated for the period 1990-2015 (overall required rate) or for the period 2000-2015 (catch-up rate). The table below shows the historic (1990-2000) rate, the overall rate required to achieve MDG targets (1990-2015), and the catch-up growth rates for eight MDG indicators.

For three indicators (prevalence of underweight children, ratio of girls to boys, and access to water), growth rates between 1990 and 2000 would result in MDG targets being met. For the other five indicators (see graphs), progress has been insufficient to reach the MDG targets. The graphs show past performance and two future scenarios: the predicted end point if historic rates of change are maintained (dotted line), and the rate (catch-up rate) from 2000 to 2015 that will achieve the MDGs (dashed line in bold).

Average Annual Rates of Change: Historic versus Required (in percent)

Indicator	*Historic 1990-2000*	*Overall required 1090-2015*	*Catch-up required 2000-2015*
Population below $US 1/day poverty line (PPP)	-1.3	-2.8	-3.7
Prevalence of underweight children under five years	-2.8	-2.8	(n/a)
Under-5 mortality (number per 1,000 live births)	-1.6	-4.4	-6.3
One-year-olds immunized against measles (%)	0.4	1.8	2.7
Births attended by skilled personnel (%)	2.7	4.3	5.4
Ratio of girls to boys in primary and secondary education (%)	1.5	1.3	(n/a)
Primary school completion (%)	0.9	1.7	2.1
Population with sustainable access to an improved water source (%)	1.7	0.9	(n/a)

Source: DECDG, The World Bank—prepared by Changqing Sun (DECDG) and Pedro Arizti (OPCRX).

Table A1. Changes in Proposed Country Outcome Indicators in Recent Years

Indicator	Unit	Countries included[a] (no.)	Coverage[b] (%)	Year Baseline	Year Most recent	Outcomes[c] Baseline	Outcomes[c] Most recent	Average annual growth rate(%)[d]
1. Proportion of population below $1/day poverty line	Percent of pop.	48	91	1999	2001	33	33	-0.3
2. Prevalence of underweight children under five years of age	Percent of pop. age 0-4	44	83	1997/99	2000/02	41	37	-3.3
3. Under-5 child mortality	Per 1,000 live births	79	100	1997/99	2000/02	125	120	-1.4
4. Proportion of 1-year-old children immunized against measles	Percent of pop. age one	73	100	1997/99	2000/02	58	62	2.3
5. HIV prevalence rate of women aged 15-24[e]	Percent of female pop. age 15-24	44	90	1999	2001	2.3	2.5	4.4
6. Proportion of births attended by skilled health personnel	Percent of births	52	82	1997/99	2000/02	40	44	3.3
7. Ratio of girls to boys in primary and secondary education	Percent	52	79	1997/99	2000/02	83	85	0.9
8. Primary school completion rate	Percent of pop. officially graduating	55	72	1997/99	2000/02	72	76	1.9
9. Proportion of population with sustainable access to an improved water source	Percent of pop.	34	86	1990	2000	67	78	1.7
10. Fixed lines and mobile telephone per 1,000 inhabitants	Per 1,000 people	79	100	1997/99	2000/02	21	40	20.7
11. Formal cost of business start-up	Percent of GNI per capita	38	88	Jan 02	Jan 04	91	73	-10.6
12. Time required for business start-up	Days	39	89	Jan 02	Jan 04	85	75	-6.7
13. Public expenditure management	Number of benchmarks met	24	13	2001/02	(n/a)	6	(..)	(..)
14. Agricultural value-added	Constant 1995 $US, billion	68	95	1997/99	2000/02	267	275	1.0
15. GDP per capita	Constant 1995 $US	77	97	1997/99	2000/02	459	487	1.9
16. Access of rural population to an all-season road	Percent of rural pop.	31	87	1995/2003	(n/a)	63	(..)	(..)
17. Household electrification rate	Percent of households	49	95	1995/2003	(n/a)	55	(..)	(..)
18. Proportion of households using solid fuels	Percent of households	28	77	1995/2003	(n/a)	78	(..)	(..)

Notes:

(..) means insufficient data, (n/a) means not applicable.

[a] 80 IDA-eligible countries are considered in the aggregation for all proposed indicators. Timor-Leste is excluded because of its very limited data availability.

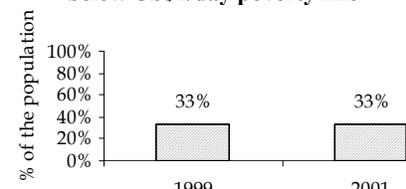[b] Percent of relevant population from total relevant population in the 80 IDA countries.

[c] Four indicators do not have sufficient information yet to measure progress between IDA periods.

[d] The average annual growth is calculated between the baseline estimated value and the most recent estimated value. It is the most recent rate of growth experienced by the indicator.

[e] Note that, because of the difference in estimation methods between years, changes in prevalence over time are not likely to be reliable.

POSSIBLE COUNTRY OUTCOME INDICATORS FOR IDA14

Indicator: Proportion of the Population below US$1/day Poverty Line

Definition Population below US$1 a day is the percentage of the population living on less than $1.08 a day at 1993 international prices. **Aggregation** From the total of 80 IDA countries 48, representing 91 percent of total population in the IDA countries, were used to aggregate the figures in the graph. Population in each country was used to weight individual country data.	**Proportion of Population below US$1/day poverty line**

The IDA Countries Included

Albania, Armenia, Azerbaijan, Bangladesh, Bolivia, Burkina Faso, Burundi, Cambodia, Cameroon, Central African Republic, Côte d'Ivoire, Ethiopia, Gambia, Georgia, Ghana, Guyana, Honduras, India, Indonesia, Kenya, Kyrgyz Republic, Lao PDR, Lesotho, Madagascar, Malawi, Mali, Mauritania, Moldova, Mongolia, Mozambique, Nepal, Nicaragua, Niger, Nigeria, Pakistan, Rwanda, Senegal, Sierra Leone, Sri Lanka, St. Lucia, Tajikistan, Tanzania, Uganda, Uzbekistan, Vietnam, Yemen Rep., Zambia, Zimbabwe

Relevance to Poverty Reduction and MDGs

The ultimate goal of most development agencies and institutions is to eradicate extreme poverty and hunger. The first goal in the Millennium Development Declaration is to eradicate extreme poverty and hunger, and the first target is to halve, between 1990 and 2015, the proportion of people whose income is less than US$1 a day in purchasing power parity (PPP) terms. In effect, this indicator measures progress toward the reduction of extreme poverty, which is also a goal of most PRSPs.

Sensitivity to Policy Change

As a result of revisions in PPP exchange rates, poverty rates cannot be compared with poverty rates reported previously for individual countries. Data showing as 2.0 signifies a poverty rate of less than 2.0 percent. However, the indicator is good proxy to capture changes in the number of poor people brought about by a government's actions and programs focused on reducing poverty.

Measurability and Reporting

Estimates of this indicator are based on per capita incomes or expenditures derived from household surveys by the Bank's Economic Research Group. Whenever possible, expenditures are used.

The distribution of per capita expenditure or income is estimated using empirical Lorenz (distribution) curves weighted by household size. In all cases measures of poverty to obtain Lorenz curves are calculated from primary data sources. Poverty in a country is estimated by converting the US$1 a day poverty line to local currency using the latest PPP exchange rates for consumption taken from World Bank estimates. Local consumer price indices are then used to adjust the international poverty line in local currency to prices prevailing around the time of the household surveys. This international poverty line is used to identify how many people are below US$1 a day in PPP terms. The PPP-based international poverty line is required only to allow comparisons across countries and to produce estimates of poverty at the aggregate level. Most countries also set their own poverty lines.

The availability of this indicator depends on the availability of household survey data with income or expenditure data, and the availability of PPP exchange rates. Household income and expenditure surveys are typically conducted every three to five years in many developing countries, but in some countries less frequently. The most recent PPP exchange rates were calculated for 1993. Regional and global estimates of poverty based on the US$1 day poverty line are updated annually by the World Bank and published in World Development Indicators. Estimates are available every 3 years. The Bank is working to compile an improved repository of national household survey data, which will provide data that are better harmonized across countries. Also, a new round of the International Comparison Program project is planned, which is designed to update the PPP exchange rates.

Costs (implication for IDA borrowers and the Bank)

Estimating the proportion of the population below a standardized poverty line requires a good quality income/expenditure survey, and estimates of PPP. Over 75 percent of IDA countries are participating in the new 2003-06 round of the International Comparison Program, which will substantially improve the quality and coverage of data for the calculation of poverty rates in PPP terms. Countries currently conduct income/expenditure surveys roughly every five years or so. Surveys of this type are driven by domestic policy needs, for analysis to underpin PRSPs, or to form the basis for poverty assessments; more frequent surveys, for example to achieve the ideal three-yearly frequency of the IDA cycle, would require additional resources to carry our surveys of this type, which typically cost between $300,000 and $1 million per country.

*This note was prepared by Martin Ravallion, Shaohua Chen, and Johan A. Mistiaen (DECRG) and the DECDG Team.*

Indicator: Prevalence of Underweight Children Under-five Years of Age

Definition

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 reference population, adopted by the World Health Organization (WHO) in 1983, is based on children from the United States, who are assumed to be well nourished.

Prevalence of underweight children under-five years of age

Aggregation

From the total of 80 IDA countries 44, represent 83 percent of total children under-five years of age in the IDA countries, were used to aggregate the figures shown in the graph. The data are aggregated from country data, using the number of children under age five as weights.
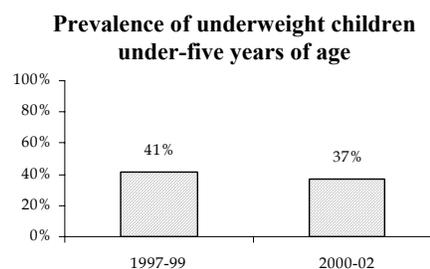
The IDA Countries Included

Albania, Angola, Armenia, Azerbaijan, Bangladesh, Benin, Burkina Faso, Cambodia, Chad, Comoros, Congo Dem. Rep., Cote d'Ivoire, Eritrea, Ethiopia, Gambia, Ghana, Guinea, Haiti, Honduras, India, Indonesia, Kyrgyz Republic, Lao PDR, Lesotho, Madagascar, Malawi, Mali, Mauritania, Mongolia, Nepal, Nicaragua, Niger, Nigeria, Rwanda, Senegal, Serbia and Montenegro, Sierra Leone, Sri Lanka, Sudan, Tanzania, Uganda, Vietnam, Zambia, Zimbabwe

Relevance to Poverty Reduction and MDGs

Child malnutrition is linked to poverty, low levels of education, and poor access to health services. Even moderate malnourishment even moderate, increases children's risk of death, inhibits their cognitive development, and affects health status later in life. The first MDG calls for reducing poverty, but also for halving the proportion of people who suffer from malnutrition. Sufficient and good-quality nutrition is critical for development, health, and survival of current and succeeding generations. Moreover, governments will only be successful in their efforts to accelerate economic development in a sustained way when they ensure optimal child growth.

Sensitivity to Policy Change

Child malnutrition, as reflected in body weight, is selected as an indicator to measure malnutrition for several reasons. It is monitored more closely than adult malnutrition, can affect health in later life, and may be taken as an indicator of malnutrition in general. This indicator is sensitive to changes and policies leading toward better child nutrition and, thus, malnutrition reduction, in the IDA countries.

Measurability and Reporting

Data on malnutrition are compiled internationally by UNICEF and WHO. The calculation of this indicator requires data on child weights, which are normally obtained from household surveys that include weight measurements. Surveys of sufficient quality are typically undertaken every 5-10 years, although a greater frequency would be preferable. Some countries have few or no data. There can be difficulties associated with age reporting in some countries, and ages are estimated, in some cases. The weights of national child population are compared with the table of weights from the National Center for Health Statistics/WHO table for each age group. The percentages of children whose weights are below the threshold of *minus two standard deviations from the median* are then aggregated to form the total percentage of the children under-five who are underweight.

Costs (implication for IDA borrowers and the Bank)

If the current availability of data are considered sufficient for IDA monitoring, then there would be very little additional cost for including malnutrition in IDA RMS. More data would require more household surveys, which may cost from a $100,000 to $1 million, depending on their comprehensiveness. Surveys that collect data to calculate information on child malnutrition are normally more costly than standard socioeconomic surveys, because of the need to accurately weigh children during the enumeration process. However, all of the major internationally sponsored surveys collect child malnutrition data (MICS, DHS, LSMS and CWIQ). Given past trends and future plans for these surveys it seems reasonable to assume that most IDA countries will conduct at least one of these surveys in a three-year period, and at least one survey within the IDA14 period, and so the additional cost equates to that of ensuring that data are collected from different household surveys in a comparable manner—and that these data are then fully utilized by the international agencies responsible for compiling and reporting these data, in this case WHO and UNICEF.

This note was prepared by Ed Bos and Emi Suzuki (HDNHE).

Indicator: Under-Five Mortality Rate

Definition

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. For example, as the graph shows, for every 1,000 live births in IDA countries in 1997-99, 125 children died before reaching age five, whereas 120 did so in 2000-02.

Under-five mortality rate

Aggregation

From the total of 80 IDA countries 79, representing 100 percent of total estimated births in the IDA countries, were used to aggregate the figures shown in the graph. Estimated births in each country were used to weight individual country data.

The IDA Countries Included

Afghanistan, Albania, Angola, Armenia, Azerbaijan, Bangladesh, Benin, Bhutan, Bolivia, Bosnia and Herzegovina, Burkina Faso, Burundi, Cambodia, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Congo Dem. Rep., Congo Rep., Cote d'Ivoire, Djibouti, Dominica, Eritrea, Ethiopia, Gambia, Georgia, Ghana, Grenada, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, India, Indonesia, Kenya, Kiribati, Kyrgyz Republic, Lao PDR, Lesotho, Liberia, Madagascar, Malawi, Maldives, Mali, Mauritania, Moldova, Mongolia, Mozambique, Myanmar, Nepal, Nicaragua, Niger, Nigeria, Pakistan, Papua New Guinea, Rwanda, Samoa, Senegal, Serbia and Montenegro, Sierra Leone, Solomon Islands, Somalia, Sri Lanka, St. Lucia, St. Vincent and the Grenadines, Sudan, Tajikistan, Tanzania, Togo, Tonga, Uganda, Uzbekistan, Vanuatu, Vietnam, Yemen Rep., Zambia, Zimbabwe

Relevance to Poverty Reduction and MDGs

The indicator relates directly to the fourth MDG ("Reduce child mortality") and 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.

Sensitivity to Policy Change

The indicator is very powerful, since it reflects not only health care conditions, but also the social, economic, and environmental conditions in which children (and others in society) live. It is sensitive (in the medium term) to changes in policies affecting child mortality.

Measurability and Reporting

Since data on incidences and prevalence of diseases (morbidity data) are frequently unavailable, mortality rates are often used to identify vulnerable populations. Mortality rates are among the indicators most frequently used to compare levels of socioeconomic development across countries, and data on child mortality are more complete and more timely than data on adult mortality. To calculate this indicator, age-specific mortality rates are calculated from births and deaths data derived from vital registration, census, or household surveys, and an estimate of the number of children at risk. These are then summed for children under five years of age. When using household surveys under-five mortality estimates can be obtained in a direct (using birth histories) and/or indirect way ("Brass" method). The best source of data are a complete vital registration system (one covering at least 90 percent of vital events in the population), but such systems are fairly uncommon in developing countries. Thus, estimates must be obtained from sample surveys or derived by applying indirect estimation techniques to registration, census, or survey data. Vital registration statistics are available generally once a year, but they are usually deficient in developing countries, and household surveys that include questions on births and deaths are performed every few years.
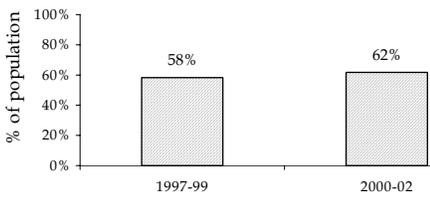
Data from household surveys are also subject to a number of sampling and nonsampling errors, including inadequate sample size (surveys estimating child deaths require large samples, because such incidences are uncommon), recall errors, and interviewer mistakes. Also, indirect estimates rely on estimated actuarial ("life") tables that may be inappropriate for the population concerned. Finally, it should also be noted that when the under-five/infant mortality rates are derived from survey data in a direct way (using birth histories), the latest rate generally represents an average for 0-4 years before the survey. UNICEF, WHO, and the World Bank produce harmonized estimates of this indicator every year that make use of all information available, including vital registration as well as direct and indirect estimates from household surveys and censuses. The estimates from household surveys and censuses are fitted into a weighted regression for the best estimates.

Costs (implication for IDA borrowers and the Bank)

If the modeled data from the interagency group are acceptable, there is little additional cost involved. Collecting information to calculate child mortality rates tends to be the concern of surveys specifically designed to collect demographic data, such as the MICS and DHS surveys, and population censuses. Some LSMS surveys include a mortality module, but LSMS samples used for these modules are typically too small to allow reliable estimates. Where available, data from vital registration systems may also be used, but these systems are not typically well developed in low-income countries. In countries where they are conducted, the frequency of DHS surveys tends to be every five years; but their coverage of the group of IDA countries is not complete. MICS tend to cover more IDA countries than DHS, but again these surveys have been conducted only every five years—MICS1 in 1995 and MICS2 in 2000, with MICS3 planned for 2005.

This note was prepared by Ed Bos and Emi Suzuki (HDNHE).

Indicator: Proportion of One-year-old Children Immunized against Measles

Definition

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.

Aggregation

From the total of 80 IDA countries 73, representing 100 percent of children under age one in the IDA countries, were used to aggregate the figures shown in the graph. Children under age of one in each country were used to weight individual country data.

Proportion of one-year-old children immunized against measles

The IDA Countries Included

Afghanistan, Albania, Angola, Armenia, Azerbaijan, Bangladesh, Benin, Bhutan, Bolivia, Bosnia and Herzegovina, Burkina Faso, Burundi, Cambodia, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Congo Dem. Rep., Congo Rep., Cote d'Ivoire, Djibouti, Eritrea, Ethiopia, Gambia, Georgia, Ghana, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, India, Indonesia, Kenya, Kyrgyz Republic, Lao PDR, Lesotho, Madagascar, Malawi, Maldives, Mali, Mauritania, Moldova, Mongolia, Mozambique, Myanmar, Nepal, Nicaragua, Niger, Nigeria, Pakistan, Papua New Guinea, Rwanda, Samoa, Senegal, Serbia and Montenegro, Sierra Leone, Solomon Islands, Somalia, Sri Lanka, St. Lucia, Sudan, Tajikistan, Tanzania, Togo, Uganda, Uzbekistan, Vanuatu, Vietnam, Yemen Rep., Zambia, Zimbabwe

Relevance to Poverty Reduction and MDGs

More than 10 million children die each year in the developing world, the vast majority from causes preventable through a combination of good care, nutrition, and medical treatment. Mortality rates for children under-five dropped drastically in the past two decades, but the rates remain high in developing countries. This indicator is related to the fourth MDG ("Reduce child mortality") since 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 in the IDA countries.

Sensitivity to Policy Change

Governments in developing countries usually finance immunization against measles, diphtheria, pertussis (whooping cough), tetanus, and polio as part of the basic public health package. The indicator is sensitive to government's immunizations campaigns, and values fluctuate according to when immunization campaigns are carried out.

Measurability and Reporting

Estimates of immunization coverage are generally based on two sources of empirical data: administrative data and coverage surveys. For estimates based on administrative data, the immunization coverage is derived by dividing the total number of vaccinations given by the number of children in the target population. For most vaccines the target population is the national annual number of births or number of surviving infants (this may vary depending on countries' policies and the specific vaccine). Immunization coverage surveys are frequently used in connection with administrative data. The indicator is estimated for children aged 12-23 months who receive a dose of measles either any time by the survey or before age 12 months. The two data sources are reports of vaccinations performed by service providers (administrative data), and household surveys containing items on children's vaccination history (coverage surveys). Routine data are compiled by the National Expanded Programme on Immunization program managers. The principal types of surveys used as sources of information on immunization coverage are the EPI 30 cluster survey, the UNICEF Multiple Indicator Cluster Survey (MICS) and the Demographic Health Surveys (DHS). Administrative data are collected annually and surveys are generally less frequent. Data are collected internationally through the Annual WHO/UNICEF Joint Reporting Form on Vaccine Preventable Diseases, and are then screened and standardized.

The first dose of measles vaccine is supposed to be administered to all children at the age of nine months or shortly after. By 2000, most countries were providing a "second opportunity" for measles vaccination, either through a two-dose routine schedule or through a combined routine schedule and supplementary campaigns. In many developing countries lack of precise information on the size of the cohort of children under one year of age makes immunization coverage difficult to estimate, and survey data are also subject to erroneous maternal reports.

Costs (implication for IDA borrowers and the Bank)

If the data collected through the WHO/UNICEF form are acceptable, there is little additional cost involved. Data are relatively easy to collect from any national household survey or census provided that definitions are clearly and consistently applied during enumeration. An analysis of past trends, and existing plans for the Bank's Living Standards Measurement Surveys and surveys based on the Core Welfare Indicator Questionnaire, the Demographic and Health Surveys sponsored by USAID, and the UNICEF Multiple Indicator Cluster Survey reveal that almost all IDA countries conduct at least one major survey in a three-year period, and will do so during the IDA 14 period. Assuming that these surveys are already funded, data collection for this indicator will not require additional surveys.

This note was prepared by Ed Bos and Emi Suzuki (HDNHE).

Indicator: HIV Prevalence Among Women Aged 15-24 Years

| Definition	**HIV prevalence rate among woman aged 15-24 years**

Definition

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 of alive at this age. The basis of measuring infection is the incidence of HIV among women 15-24 at hospitals and antenatal clinics.

Aggregation

From the total of 80 IDA countries 44, representing 90 percent of the population of females aged 15-24 in the IDA countries, were used to aggregate the figures shown in the graph. The population of females aged 15-24 in each country was used to weight individual country data.

HIV prevalence rate among woman aged 15-24 years

2.3% (1999)   2.5% (2001)
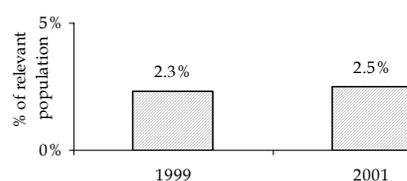
The IDA Countries Included

Angola, Bangladesh, Benin, Bolivia, Burkina Faso, Burundi, Cambodia, Cameroon, Central African Republic, Chad, Congo Dem. Rep., Congo Rep., Cote d'Ivoire, Ethiopia, Gambia, Ghana, Guinea-Bissau, Haiti, Honduras, India, Indonesia, Kenya, Lao PDR, Lesotho, Madagascar, Malawi, Mali, Moldova, Mozambique, Nepal, Nicaragua, Nigeria, Pakistan, Papua New Guinea, Rwanda, Senegal, Sierra Leone, Sri Lanka, Tanzania, Togo, Uganda, Vietnam, Zambia, Zimbabwe

Relevance to Poverty Reduction and MDGs

MDG number six is to combat HIV/AIDS, malaria, and other diseases. These diseases, which are among the world's most important killers, all have their greatest impact on poor countries and poor people. They interact in ways that make their combined impact worse. In addition, the economic burden of epidemics such as HIV/AIDS on families and communities is enormous. Estimates suggest that when the prevalence of HIV/AIDS reaches 8 percent—about where it is for several African countries today—the cost in economic growth is estimated at about one percent a year. Prevention and treatment programs will save lives, help economic development and reduce poverty.

Infection leads to AIDS, and without treatment, average survival from the time of infection is about nine years. Access to treatment is uneven, and no vaccine is currently available. About half of all new HIV cases are among people 24 years old or younger. In generalized epidemics (with prevalence consistently at more than 1 percent among pregnant women), the infection rate for pregnant women is broadly indicative of the overall rate for the adult population, provided adequate age, gender, and residence. Therefore, this indicator is a measure of spread of the epidemic. It is worth mentioning that many of the IDA countries listed above do not have a generalized epidemic.

Sensitivity to Policy Change

Changes in HIV prevalence in women 15-24 is determined largely by the relationship between the number of women infected and the number of deaths from AIDS. This leads to a number of conclusions. First, the larger the spread in age of a group, the less is the impact of new infections, which typically occur at a young age. Second, regardless of the age of the spread, an increase in the death rate relative to the infection rate will reduce the prevalence rate and make it appear that the problems of HIV infection is declining, even while infection maybe rising, though not at the same rate as deaths. Thus, reductions in HIV incidence associated with genuine behavioral change should first become detectable in HIV prevalence figures for people aged 15 to 19, particularly when incidence of HIV is rising. Under these circumstances, the 15-24 year-old group is a less satisfactory early-warning indicator of a growing epidemic. Parallel behavioral data should be used to aid interpretation of trends in HIV prevalence. In countries, with concentrated or stable epidemics a relevant indicator could be "HIV prevalence among female sex workers," and in countries with significant injecting drug use transmission, "HIV prevalence among injecting drug users" could also be useful. In nascent or concentrated epidemics, antenatal surveillance may not capture HIV infections if the epidemic is largely concentrated in HIV-vulnerable groups that are not represented as part of the measurement of HIV incidence at hospitals and antenatal clinics. In this case, there may be an underestimate. Therefore, the indicator is not a good tool for tracking within country impacts of policies such as use of condoms and behavioral change. Nevertheless, it does reflect inter country differences underlining the HIV/AIDS challenge.

Measurability and Reporting

There are no reliable estimates of HIV infections among women aged 15-24. UNAIDS estimates this number from records of HIV infection among pregnant women aged 15-24. Data on HIV in pregnant women come from tests on blood samples taken as part of regular anonymous examinations of pregnant women aged 15-24 at antenatal clinics, which have been chosen as sentinel surveillance sites for HIV infection. The sentinel surveillance sites are typically chosen to reflect urban, rural, ethnic, and other socio-geographic divisions in a country, but in practice antenatal examinations are more frequent in urban and peri-urban clinics, which biases results toward HIV prevalence in urban areas. Also, by choosing pregnant women as the sample population, data are biased by a potential higher sexual activity of the subgroup, leading to a potential higher prevalence rate. The data are collated annually in most developing countries. These data are gathered by UNAIDS, UNICEF, and WHO, which have formed coalitions to coordinate global efforts to treat victims and prevent the diseases from spreading. The data used in the WDI are drawn from the Joint UN Program (UNAIDS) and WHO's *AIDS Epidemic Update* (2002) report. Surveillance is being strengthened with donor support. UNAIDS and US Centers for Disease Control and Prevention are also examining improved testing protocols. The most important problem with this indicator, however, is that different methodologies have been used to calculate prevalence rate and hence the series are not comparable over time. In early July 2004, UNAIDS will publish estimates of HIV prevalence among adults (15-49 years) for 2001 and 2003 that will be comparable over time.

Costs (implication for IDA borrowers and the Bank)

Data for HIV prevalence rates are based on modeled estimates calculated by UNAIDS. Estimates have been made for all IDA countries for the years 2000 and 2002. It is likely that data from these estimation methods will be available in future at a frequency to allow changes in aggregates from one three-year period to another. Quality is also likely to increase, particularly since the inclusion of blood testing in some 18 DHS surveys.

This note was prepared by Susan Stout and David Wilson (HDNGA).

## Indicator: Births Attended by Skilled Health Staff

Definition

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.

Aggregation

From the total of 80 IDA countries 52, accounting for about 82 percent of total estimated births in the IDA countries, were used to aggregate the figures shown in the graph. Estimated number of births in each country were used to weight individual country data.

Proportion of births attended by skilled health personnel
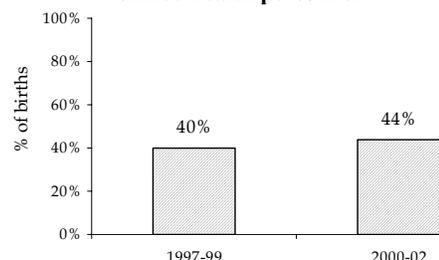
The IDA Countries Included

Angola, Armenia, Azerbaijan, Bangladesh, Benin, Bhutan, Bolivia, Bosnia and Herzegovina, Burkina Faso, Cambodia, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Cote d'Ivoire, , Eritrea, Gambia, , Grenada, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, India, Indonesia, Lesotho, Madagascar, Malawi, Maldives, Mali, Mauritania, Mongolia, Nepal, Niger, Nigeria, Pakistan, Rwanda, Senegal, Serbia and Montenegro, Solomon Islands, Sri Lanka, St. Vincent and the Grenadines, Tajikistan, Tanzania, Togo, Tonga, Uganda, Uzbekistan, Vietnam, Zimbabwe

Relevance to Poverty Reduction and MDGs

Every year more than 500,000 women die from complications of pregnancy and childbirth. Most of the deaths occur in Asia, but the risk of dying is highest in Africa. Women in high-fertility countries in Sub-Saharan Africa have a 1-in-16 lifetime risk of dying from maternal causes, compared with women in low-fertility countries in Europe, who have a 1-in-2400 risk, and in North America, who have a 1-in-3,500 risk of dying. High maternal mortality rates in many countries are the result of inadequate reproductive health care for women and inadequately spaced births. The fifth MDG aims at improving maternal health, with a target of reducing by three-quarters, between 1990 and 2015, the maternal mortality ratio.

Sensitivity to Policy Change

The indicator monitors the ability of the health system to provide good antenatal and postnatal care for women. "Skilled health personnel" are intended to include only those who are properly trained and who have appropriate equipment and drugs, but standardization of the definition of "skilled" health personnel is sometimes difficult because of differences in training of health personnel among countries. Traditional birth attendants (TBAs), who may have learned from other TBAs, even if they have received a short training course, are not intended to be included. In spite of the limitations, the indicator is sensitive to government's actions or policies that lead towards an increase in births attended by professionals, and it is assumed that mortality rates will subsequently drop.

Measurability and Reporting

Measuring maternal mortality accurately is notoriously difficult, except where there is comprehensive registration of deaths and causes of death. Some indicators track progress by focusing on professional care during pregnancy and childbirth (particularly for the management of complications) and the most widely available indicator is the proportion of women who deliver with the assistance of a medically trained health care provider. Data on this indicator are compiled by UNICEF and WHO. To calculate this indicator, the number of births attended by skilled personnel (doctors, nurses, or midwives) is expressed as a percentage of deliveries (or births if those are the only data available) in the same period. Data are collected through household surveys, in particular the Multiple Indicator Cluster Survey (MICS) sponsored by UNICEF, the Demographic and Health Survey (DHS), and as well as other national household surveys. Household survey data on this indicator are generally available every five years.

Costs (implication for IDA borrowers and the Bank)

If the data compiled by UNICEF/WHO are acceptable, there is little additional cost involved. Data are relatively easy to collect from any national household survey or census, provided that definitions are clearly and consistently applied during enumeration. An analysis of past trends and existing plans for the Bank's Living Standards Measurement Surveys (LSMS) and surveys based on the Core Welfare Indicator Questionnaire (CWIQ), the Demographic and Health Surveys (DHS) sponsored by USAID, and the UNICEF Multiple Indicator Cluster Survey (MICS) reveal that almost all IDA countries conduct at least one major survey in a three-year period, and will do so during the IDA14 period. Assuming that these surveys are already funded, data collection for this indicator will not require additional surveys.

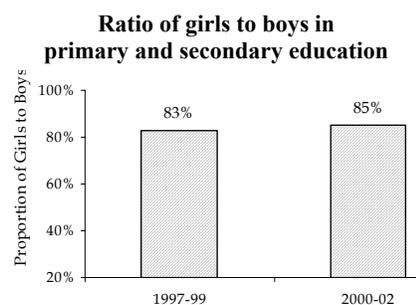*This note was prepared by Ed Bos and Emi Suzuki (HDNHE).*

Indicator: Ratio of Girls to Boys in Primary and Secondary Education

Definition

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.

Aggregation

From the total of 80 IDA countries 52 were used to aggregate the figures shown in the graph, and they represent 79 percent of total IDA. The population in each country was used to weight individual country data.

Ratio of girls to boys in primary and secondary education

	1997-99	2000-02
Proportion of Girls to Boys	83%	85%

The IDA Countries Included

Albania, Azerbaijan, Bangladesh, Benin, Bolivia, Burkina Faso, Burundi, Cambodia, Cameroon, Cape Verde, Chad, Comoros, Congo Rep., Cote d'Ivoire, Djibouti, Dominica, Eritrea, Ethiopia, Gambia, Georgia, Ghana, Grenada, Guyana, India, Indonesia, Kenya, Kyrgyz Republic, Lao PDR, Lesotho, Maldives, Mauritania, Mongolia, Mozambique, Myanmar, Nepal, Nicaragua, Niger, Papua New Guinea, Rwanda, Samoa, Senegal, Serbia and Montenegro, St. Lucia, St. Vincent and the Grenadines, Sudan, Tajikistan, Tanzania, Togo, Tonga, Vietnam, Yemen Rep., Zimbabwe.

Relevance to Poverty Reduction and MDGs

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. The third MDG seeks to promote gender equality and the empowerment of women, and this indicator provides a measure of equality of educational opportunity.

Sensitivity to Policy Change

The indicator is an imperfect measure of the relative accessibility of schooling for girls for the following reasons: it does not allow assessment of whether slight improvements in the ratios reflect an increase in girls' school attendance (desirable) or a decrease in boys' attendance (undesirable); and it does not show whether those enrolled at school complete the relevant education cycles. The indicator, however, is sensitive to actions that lead toward a sustained increase in the access of schooling for girls, and thus, toward gender equality and the empowerment of women.

Measurability and Reporting

The unit of measurement is girls' enrollment ratio as a percentage of boys' enrollment ratio. The usual method of computation is to take the number of boys and girls, regardless of their ages, enrolled. The number of enrolled girls/boys is then expressed as a percentage of school age female/male population. Private education tends to be underreported. International coverage has improved in recent years, but reported with a two-year time lag. The enrollment data usually come from school records as reported to ministries of education and/or national statistical agencies. The official data are collected by UNESCO from approximately two-thirds of countries in the world, using an annual questionnaire-based survey. The data collection is based on the International Standard Classification of Education classification, which allows for international comparability between countries and over time.

Costs (implication for IDA borrowers and the Bank)

Data for indicators based on school enrollments are normally produced from education management information systems, based on school records. There are often quality problems associated with the recording of enrollment, such as those caused by age misreporting; there would be development costs associated with addressing these issues in many countries.

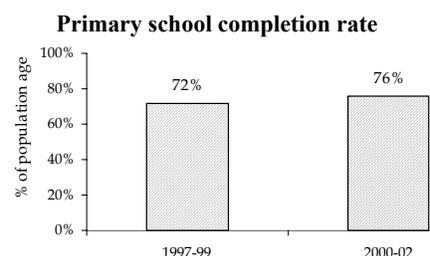*This note was prepared by Sukai Prom Jackson (HDNED).*

Indicator: Primary School Completion Rate

Definition

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—i.e., the number of children reaching the last year of primary school (as defined by a country) net of repeaters.

Primary school completion rate

Aggregation

From the total of 80 IDA countries 55, representing about 72 percent of the total number of children of official graduation age in the population in the IDA countries, were used to aggregate the figures shown in the graph. The number of children of official graduation age in the population in each country was used to weight individual country data.

The IDA Countries Included

Albania, Armenia, Azerbaijan, Bangladesh, Benin, Bhutan, Bolivia, Bosnia and Herzegovina, Burkina Faso, Burundi, Cambodia, Cameroon, Cape Verde, Chad, Comoros, Congo Rep., Cote d'Ivoire, Djibouti, Eritrea, Ethiopia, Gambia, Georgia, Ghana, Guyana, Honduras, India, Indonesia, Kenya, Kyrgyz Republic, Lao PDR, Lesotho, Madagascar, Malawi, Maldives, Mali, Mauritania, Moldova, Mongolia, Mozambique, Nepal, Nicaragua, Niger, Papua New Guinea, Rwanda, Samoa, Senegal, Sri Lanka, St. Vincent and the Grenadines, Tajikistan, Tanzania, Togo, Uganda, Uzbekistan, Vanuatu, Zambia.

Relevance to Poverty Reduction and MDGs

Education creates choices and opportunities for people, helps to reduce poverty and gender bias, lowers birth rates, and stimulates a better understanding of diseases. For countries, it creates a more dynamic workforce and well-informed citizens able to compete and cooperate globally—opening doors to economic and social prosperity. Universal primary education (measured through primary completion rate) is the second MDG. Information provided on actual completion captures one of the most critical issues in the education sector.

Sensitivity to Policy Change

Various factors may lead to poor performance on the PCR indicator, including low quality of schooling, discouragement resulting from poor performance, the direct and indirect costs of schooling, and the demands of farm work which keep children out of school for extended periods. Students' progress to higher grades may also be limited by the availability of teachers, classrooms, and educational materials. However, this indicator is the most direct measure of national progress toward universal primary education and it captures the final outcome of the primary education system. But these factors take some time to change. Therefore, improvements (or declines) in response to policy change will only register slowly.

Measurability and Reporting

Although the World Bank and UNESCO's Institute of Statistics are committed to monitoring the proxy PCR indicator annually, systems for collecting and standardizing the data from all IDA countries are not yet in place; as a result, the current database has many gaps, particularly for small countries and earlier years, and there are anomalies and estimates. Efforts to compile more current data from countries by staff of the World Bank's Human Development Network reveal several inconsistencies that render the data difficult to interpret. The collection of information for the actual PCR based on students who successfully complete primary education requires focused discussion on the indicator and agreement on the bases for defining completion with quality. This discussion must take into consideration the objective assessment of country-defined competencies for primary school graduation. Not all countries have such competencies, with implications for policy reforms in country curriculum and exit examinations.

Costs (implication for IDA borrowers and the Bank)

Data for this indicator based on school enrollments are normally produced from education management information systems, based on school records. There are often quality problems associated with the recording of enrollment, such as those caused by age misreporting; there would be development costs associated with addressing these issues in many countries. The primary school completion rate is a more difficult statistic to produce than data on enrollments, in terms of data sources required, since information is needed on completion and this is not always recorded by schools. It also requires accurate estimates of the numbers of children in the population of school completion age, which in turn requires a good quality census or vital registration system, and good national capacity to analyze demographic data and make forecasts.

This note was prepared by Sukai Prom Jackson (HDNED).

Indicator: Population with Sustainable Access to an Improved Water Source

Definition	**Proportion of population with sustainable access to an improved water source**

Definition

Access to an improved water source is currently defined within the UN system 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. Unimproved water sources refer to water provided through vendors, tanker trucks, unprotected wells, unprotected springs, and bottled water.
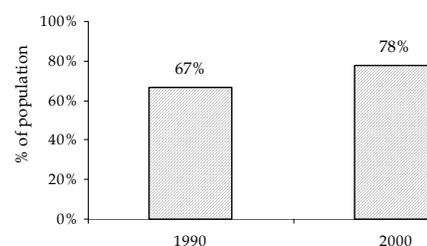
Aggregation

From the total of 80 IDA countries 34, representing 86 percent of total IDA population, were used to aggregate the figures shown in the graph. The population in each country was used to weight individual country data.

The IDA Countries Included

Bangladesh, Bolivia, Burundi, Cameroon, Central African Republic, Comoros, Cote d'Ivoire, Ethiopia, Ghana, Guinea, Haiti, Honduras, India, Indonesia, Kenya, Madagascar, Malawi, Mali, Mauritania, Nepal, Nicaragua, Niger, Nigeria, Pakistan, Papua New Guinea, Senegal, Sri Lanka, Sudan, Tanzania, Togo, Uganda, Vietnam, Zambia, Zimbabwe

Relevance to Poverty Reduction and MDGs

MDG 7 ("Ensure environmental sustainability") contains target 10 that aims at halving, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation. 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. Specifically, access to safe drinking water is of fundamental significance to lowering the risk of faecal contamination and the frequency of associated diseases. In addition, its association with other socioeconomic characteristics, including education and income, makes it a good universal indicator of human development.

Sensitivity to Policy Change

Ideally, an indicator of "access to safe water" would refer to the percentage of the population with reasonable access to an adequate supply of safe water in their dwelling or within a convenient distance of their dwelling. However, "access," quality, and volume of drinking water are difficult to estimate, and therefore sources of drinking water that are thought to provide "safe" water within a reasonable distance of the household are used as a proxy. In using this proxy indicator, it is assumed that improved water sources (defined above) are likely to provide safe water. The existence of an "improved" water supply does not always mean that it is safe, nor that local people use it. The proposed indicator is still sensitive to change in the context of government and community actions. The indicator will capture progress in the IDA countries from actions or policies that lead to an increase in the access to safe drinking water. The definitions and numbers will also be consistent with those adopted by the UN system for tracking the MDGs.

Measurability and Reporting

Since the late 1990s, data are routinely collected at national and subnational levels, in more than 100 countries, using censuses and surveys by national governments, often with support from international development agencies. Before these population-based data were available, provider-based data were used. Evidence strongly suggests that data from surveys are more reliable than the administrative records. There are many doubts about data quality; despite official WHO definitions, the judgment about whether or not water is safe is often made very subjectively. Administrative data are often available annually, but household surveys are less frequent. The compilation of the data from household surveys into country, regional, and global coverage estimates is conducted every two to three years. WHO and UNICEF compile official international estimates under the Joint Monitoring Program and their latest report *Global Water Supply and Sanitation Assessment 2000 Report (World Health Organization and UNICEF Joint Monitoring Programme, for Water Supply and Sanitation: Geneva)* has been used as the data source.

Costs (implication for IDA borrowers and the Bank)

The marginal cost is minimal. The Bank is involved in an advisory capacity to the Joint Monitoring Programme of WHO/UNICEF which collates this information, and it participates in two or three meetings a year to discuss how best to improve the indicator's measurement. However, the Bank is not involved in collecting such national data, and does not anticipate any significant additional costs in adopting such an indicator.

This note was prepared by Peter J. Kolsky, William Kingdom, Jonathan D. Halpern, and Caroline Van Den Berg (EWDWS).
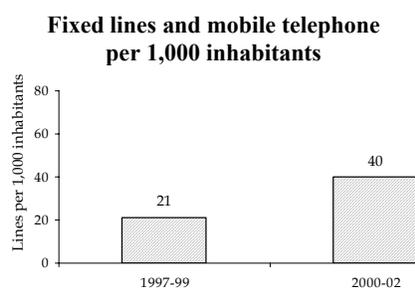
Indicator: Fixed Lines and Mobile Telephones per 1,000 Inhabitants

Definition

This indicator is a composite of two measurements, namely, the number of telephone fixed lines connecting a customer's equipment to the public switched telephone network (per 1,000 inhabitants), and the number of subscribers to a mobile telephone service using cellular technology that provides access to the public switched telephone network (per 1,000 inhabitants). The composite is the simple addition of the two indicators.

Fixed lines and mobile telephone per 1,000 inhabitants

Aggregation

From the total of 80 IDA countries 79, representing 100 percent of population in the IDA countries, were used to aggregate the figures shown in the graph. The population counts in each country were used to weight individual country data.

The IDA Countries Included

Afghanistan, Albania, Angola, Armenia, Azerbaijan, Bangladesh, Benin, Bhutan, Bolivia, Bosnia and Herzegovina, Burkina Faso, Burundi, Cambodia, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Congo Dem. Rep., Congo Rep., Cote d'Ivoire, Djibouti, Dominica, Eritrea, Ethiopia, Gambia, Georgia, Ghana, Grenada, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, India, Indonesia, Kenya, Kiribati, Kyrgyz Republic, Lao PDR, Lesotho, Madagascar, Malawi, Maldives, Mali, Mauritania, Moldova, Mongolia, Mozambique, Myanmar, Nepal, Nicaragua, Niger, Nigeria, Pakistan, Papua New Guinea, Rwanda, Samoa, Sao Tome and Principe, Senegal, Serbia and Montenegro, Sierra Leone, Solomon Islands, Somalia, Sri Lanka, St. Lucia, St. Vincent and the Grenadines, Sudan, Tajikistan, Tanzania, Togo, Tonga, Uganda, Uzbekistan, Vanuatu, Vietnam, Yemen Rep., Zambia, Zimbabwe

Relevance to Poverty Reduction and MDGs

The increasing significance of telecommunications for economic development and poverty reduction is well recognized. Telecommunications provide farmers, workers, and entrepreneurs opportunities to reduce transaction costs, increase market coverage, and improve competitiveness across borders. People living in rural and remote areas tend to be poor and socially isolated. They lack information relevant to their particular situation and have difficulty interacting with other community members or other communities. Telecommunications can help the disenfranchised voice their concerns, demand their rights, take control of their own lives, and improve information flows and communication services to make government and organizations serving the poor more efficient, transparent, and accountable. Information and Communication Technology (ICT), such as telephone and e-mail, can be of great value in bringing people together, bridging geographic distances, and providing relevant information about and to the poor. The importance of telecommunications is reflected in the Millennium Development Goals. In particular, the eighth goal focuses on developing a global partnership for development, in which access to new technologies is highlighted (Target 18). Three key indicators are used to track this goal: (a) telephone lines and cellular subscribers per 100 population; (b) personal computers in use per 100 population; and (c) Internet users per 100 population. In addition to Goal 8 of the MDG indicators, telecommunications/ICT can contribute to improving the efficiency of delivering progress toward the MDGs in other sectors and accelerating the achievement of development targets.

Sensitivity to Change

The two components of the indicator (telephone mainlines and mobile telephone service) are related to the country's macroeconomic situation and government decisions and actions, which take place at different speeds in the deregulation of markets. Wars or economic decline cause destruction of fixed lines. Teledensity stagnates where barriers to the provision of demanded services exist, and increases where successful telecommunication sector reform has taken place, particularly in the mobile sector. These factors make the indicator sensitive to change in policy and valuable for measuring progress in the development of modern communications technologies.

Measurability and Reporting

This indicator measures telecommunications; it does not measure the quality of service or the volume of traffic. Information on mainline and mobile telephone connections is provided by the International Telecommunications Union (ITU), which carries out annual surveys of telephone regulators and telephone companies in its member countries. The ITU cleans and reports the data from its surveys. This indicator will be measured by counting the number of tangible phone lines and subscribers.

Costs (implication for IDA borrowers and the Bank)

Baseline, updates and maintenance of the data are covered by ITU's regular work program. It is therefore possible to obtain annual data of this indicator from the ITU, available for most IDA countries. Data on mainline and mobile telephone subscribers are contained in the *World Telecommunications Development Report* and associated databases, published annually by the ITU; and in different format they are in re-published in the Bank's *World Development Indicator*s. Additional costs for the Bank would involve staff time to analyze the data, track the performance, and produce reports as requested.

This note was prepared by Charles J. Kenny (CITST), Christine Zhen-Wei Qiang(CITST), and Anat Lewin (CITPO).

Indicator: Time and Cost for Business Start-up

| **Definition** | **Time and cost for business start-up** |

Definition

Time and cost of business start-up measures the time and cost for a new limited liability company to fulfill all necessary requirements to legally start operations in the specified country. It is a performance measure of investment climate institutions.

Aggregation

From the total of 80 IDA countries 39 (38 for cost), representing 89 (88 for cost) percent of the total IDA population, were used to calculate the population-weighted aggregate days and cost data for IDA countries.

Time and cost for business start-up
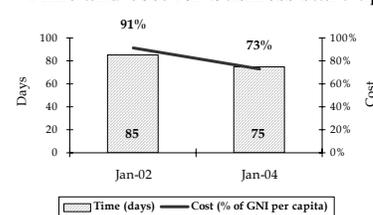
The IDA Countries Included

Albania, Armenia, Azerbaijan, Bangladesh, Benin, Bolivia, Bosnia and Herzegovina, Burkina Faso, Cameroon, Cote d'Ivoire, Ethiopia, Georgia, Ghana, Honduras, India, Indonesia, Kenya, Kyrgyz Republic, Madagascar, Malawi, Mali, Moldova, Mongolia, Mozambique, Nepal, Nicaragua, Niger, Nigeria, Pakistan, Senegal, Serbia and Montenegro, Sri Lanka, Tanzania, Uganda, Uzbekistan, Vietnam, Yemen Rep., Zambia, Zimbabwe

Relevance to Poverty Reduction and MDGs.

Long-term economic growth is a critical requirement for poverty reduction. In this process of growth, private enterprises have an essential role. Private businesses, small and large, are the engine of job creation and income growth and thus provide poor people with the chance to improve their living standards. But huge obstacles to growth exist in the form of red tape, weak judicial systems, over-zealous licensing, and inefficient banking systems. Why do such impediments exist? Wouldn't the government earn tax revenue if they were abolished? Are there any recent cases of successful reform in improving the environment for doing business? What catalyzes improvements in the environment for doing business? The time and cost of business start-up are gathered as a part of the Doing Business project in the Private Sector Vice Presidency, by tracking the process for a standardized company to complete all of the necessary regulatory requirements to register a business formally. Formal cost of business start-up (registration and licensing procedures), measures the official payments required to fulfill all requirements for business start-up, scaled as a percentage of GNI per capita. The cost of registration is a major barrier to entry in poor countries, deterring participation in the formal economy. Time required for business start-up (registration and licensing procedures) measures calendar days for a firm to obtain all necessary permits, and to notify and file with all requisite authorities, in order to legally operate a business. Time delays in registration are a major impediment to formal entry of private firms and increase the potential for corruption.

Sensitivity to Policy Change

The time and cost of business start-up indicators are unique in that they can be linked directly to policy action. Behind the total time and cost measures is a full description of the procedures, rules, and regulations for business start-up. Policymakers can review this information, identify specific bottlenecks to business entry, and know what to reform. For example, in January 2002, Ethiopia was one of the most expensive countries in the world in which to start a business, at 437 percent of GNI per capita. The breakdown of the business entry process showed that the high cost was driven mainly by the requirement to publish an official notice in the newspaper. Following dialogue with the World Bank, the Ethiopian Government eliminated the public notice requirement, and the cost plummeted to only 85.2 percent of GNI per capita. Between 2002 and 2004, over 20 of the 39 IDA countries have improved the efficiency of business start-up. Many of these reforms were directly supported by the policy dialogue of the World Bank. The indicators are increasingly being adopted in country work, including in adjustment lending, PRSPs, and country assistance strategies.

Measurability and Reporting

As of January 2004, the data are available for 134 countries, including 55 IDA countries. Data are available for 39 countries as of January 2002. For consistency of comparisons, only the data for the 39-country sample are reported in the above chart. The data are updated annually, with a time lag of only a few months from the point of measurement—i.e., January 2004 data are available by April 2004. The indicators are built through a combination of desk research and expert assessment. The project team starts by studying the laws and regulations in force on business regulations, as well as reviewing publicly available summaries and descriptions of the business start-up process. From this research, a detailed list of the steps, time and cost for business start-up are compiled. This list is then sent to business start-up experts in the country, who are asked to verify the data, identify any missing steps/data, and make any necessary corrections. If there are differences in their answers the project staff go back to the respondents until the data can be reconciled. To be comparable across countries, the indicators measure the time and cost for business start-up under specific assumptions about the company size, industry, legal identity, and location, as well as the procedures followed.

The data cover only the generic entry requirements and do not capture industry-specific licenses or utility hookups. They cover only mandatory official procedures and costs, and therefore exclude voluntary procedures and delays as well as informal payments. Actual start-up time and cost reported by individual firms, for example in firm-survey based investment climate assessments, may therefore vary from the indicators to the extent that a particular firm does not match the assumptions in the standardized case.   The Doing Business project reports the indicators on a website http://rru.worldbank.org/doingbusiness/ and in its annual publication. The Doing Business series represents a collaborative effort. The team works with leading scholars linking theory, academic rigor, and practice. Each assessment involves a partnership with an association of practitioners or an international company (e.g., law firm of Baker and McKenzie). The Doing Business project receives the invaluable cooperation of local partners–e.g., municipal officials, incorporation lawyers, business consultants, etc. Once an assessment is completed, the results are subject to a peer-review process in leading academic journals. This collaborative and continuous process of refinement produces indicators that have been scrutinized by the academic community, government officials, and local professionals.[1]

Costs (implication for IDA borrowers and the Bank)

The data are collected as part of the Doing Business project, and the marginal cost for IDA has been zero. The cost of an additional country is around $3,000, and the size of the country does not affect the cost.

This note was prepared by Axel Peuker(CICIC) and Caralee McLiesh (CICMA).

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[1] Time and cost of business start-up include procedures beyond registration at the company registrar—such as filing for different taxes, registering employees, obtaining health department clearances, and all other procedures required to legally start operations.

Indicator: Public Financial Management

Definition

Public financial management (PFM) is measured through 16 benchmark indicators that were chosen as critical elements of effective PFM and deemed necessary for tracking poverty-reducing public spending. The recently added 16th benchmark indicator is for procurement, but will not be included in the comparison due to lack of 2002 data. (See Table B1.)

Aggregation

From the total of 80 IDA countries 24 were used to aggregate the figures shown in the graph for 2002 , and they represent roughly 13 percent of the population of the IDA countries. The data are not weighted.

Public Financial Management (PFM) average number of benchmarks met per country

The IDA Countries Included

Benin, Bolivia, Burkina Faso, Cameroon, Chad, Ethiopia, Gambia, Ghana, Guinea, Guyana, Honduras, Madagascar, Malawi, Mali, Mauritania, Mozambique, Nicaragua, Niger, Rwanda, Sao Tome and Principe, Senegal, Tanzania, Uganda, Zambia

Relevance to Poverty Reduction and MDGs

While there is ample evidence of the importance and significance of governance for private investment, growth, and poverty reduction, there is still uncertainty about how governance affects the achievement of the MDGs. The public financial management indicator, a proxy of good governance is defined as a composite of 16 benchmark indicators. It was originally designed to assess countries' PFM capacity under the HIPC program. The number of PFM benchmarks met by a country is an indicator of the quality of its PFM system, although caution needs to be exercised in using such an indicator. The benchmarks include both performance (level of arrears, timeliness of reporting) and institutional indicators (internal audit, medium-term expenditure framework). All indicators are given equal weight.

Sensitivity to Policy Change

Because most of the measures in the composite indicator are influenced by government decisions, they can move either slowly or quickly depending on the government's interest in improving the efficiency of governance. It is therefore an ideal indicator for the IDA RMS.

Measurability and Reporting

Scoring is done on a 3-point scale developed to assess each indicator. Performance benchmarks were set for each indicator reflecting what countries should score for them to be able to track, monitor, manage, and report on public spending. Assessments are currently being done every two years covering 30 HIPC countries (all of which are IDA countries). The Bank and Fund are collaborating with country authorities to conduct all the surveys required to obtain data for the PFM indicator and will continue to do so until countries themselves are able to undertake their own surveys. In principle, the main elements of the indicator are relevant to many of the key objectives embedded in the PRSP, in the Bank's PRSC, and the Fund's PRGF, namely that the public expenditures of low-income countries should become more pro-poor, and that countries are responsible for reporting and managing public resources efficiently.

Costs (implication for IDA borrowers and the Bank)

The surveys mentioned above are being conducted for other purposes than the IDA RMS. The costs to borrowers are unknown. The average cost to the Bank is $10,000-15,000 per country, assuming that it is undertaken in connection with other mission work.

Table B1. Public Financial Management

	Public Financial Management	*Benchmark Description*
Formulation	**Comprehensiveness**	
	1. Composition of the budget entity	Meets Government Finance Statistics definition of general government
	2. Limitations to use of off-budget transactions	Extra (or off-) budget expenditure is not substantial
	3. Reliability of budget transactions	Level and composition of outturn is "quite close" to budget
	4. Data on donor financing	Both capital and current donor-funded expenditures included
	Classification	
	5. Classification of budget transactions	Functional and/or program information provided
	6. Identification of poverty-reducing expenditure	Identified through use of classification system (e.g. a virtual poverty fund)
	Projection	
	7. Quality of multi-year expenditure projections	Projections are integrated into budget formulation
Execution	**Internal Control**	
	8. Level of payment arrears	Low level of arrears accumulated
	9. Quality of internal audit	Internal audit function (whether effective or not)
	10. Use of tracking surveys	Tracking used on regular basis
	Reconciliation	
	11. Quality of fiscal/banking data reconciliation	Reconciliation of fiscal and monetary data carried out on routine basis
Reporting	**Reporting**	
	12. Timeliness of internal budget reports	Monthly expenditure reports provided within four weeks of end of month
	13. Classification used for budget tracking	Timely functional reporting derived from classification system
	Final Audited Accounts	
	14. Timeliness of accounts closure	Accounts closed within two months of year end
	15. Timeliness of final audited accounts	Audited accounts presented to legislature within one year
	16. Procurement	Clear enforceable rules that promote competition, transparency and value for money

This note was prepared by William Dorotinsky and Poul Engberg-Pedersen (PRMPS).

Indicator: Agricultural Value Added

| **Definition**	

Definition

Agriculture corresponds to International Standard Industrial Classification (ISIC) divisions 1 to 5 and includes forestry, hunting, and fishing, as well as cultivation of crops and livestock production. Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs. It is calculated without deductions for depreciation of fabricated assets or depletion and degradation of natural resources. The origin of value added is determined by the ISIC, revision 3. Data are in constant 1995 US dollars.

Aggregation

From the total of 80 IDA countries, 68 representing 95 percent of total IDA population, were used to aggregate the graph figures. The final indicator is a sum of total agricultural value added in all considered countries.

Agricultural value added
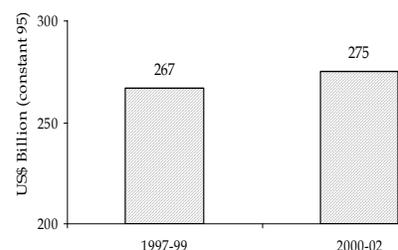
The IDA Countries Included

Albania, Angola, Armenia, Azerbaijan, Bangladesh, Benin, Bhutan, Bolivia, Bosnia and Herzegovina, Burkina Faso, Burundi, Cambodia, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Congo Dem. Rep., Congo Rep., Cote d'Ivoire, Dominica, Eritrea, Ethiopia, Gambia, Georgia, Ghana, Grenada, Guinea, Guinea-Bissau, Guyana, Honduras, India, Indonesia, Kenya, Kiribati, Kyrgyz Republic, Lesotho, Madagascar, Malawi, Mali, Mauritania, Moldova, Mongolia, Mozambique, Nepal, Nicaragua, Niger, Nigeria, Pakistan, Papua New Guinea, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, Sri Lanka, St. Lucia, St. Vincent and the Grenadines, Sudan, Tajikistan, Tanzania, Togo, Tonga, Uganda, Uzbekistan, Vietnam, Yemen Rep., Zambia, Zimbabwe

Relevance to Poverty Reduction and MDGs

Employment in the agriculture sector in some IDA countries is as high as 90 percent of the labor force, and the average share of agriculture (including forestry and fishing) in total GDP in IDA countries was 24 percent in 2002, compared with about 11 percent in all low- and middle-income countries for the same year. Hence agriculture is a much more important source of income for people in IDA countries than for all developing countries. In addition, most of the poor in IDA countries live in rural areas and are employed there. Growth of agricultural value added is therefore an indicator of progress in agricultural development and poverty reduction in rural areas.

Sensitivity to Policy Change

The indicator is sensitive to changes in agricultural production deriving from government policies and programs aimed at promoting agricultural growth through increased supply of inputs, better management, and improvements in productivity from technological change. It is, however, also subject to variations due to drought, flood, insect attack, and other such causes.

Measurability and Reporting

Agricultural value added in constant prices is estimated by measuring the total quantity of agriculture goods produced in a period, valuing them at an agreed set of base year prices, and subtracting the cost of intermediate inputs, also in constant prices. A better measure would be agricultural value added per capita, but this cannot be calculated because data on the population that generates value added from agriculture are not available. National accounts data for most developing countries are provided by national statistical organizations and central banks. The data are compiled on an annual basis. Quality of data could be affected by various factors including: (a) estimation errors from outdated agriculture census and surveys; (b) incorrect prices used to estimate gross output (e.g., controlled prices may be used instead of market prices); (c) improved agriculture productivity may not be accounted for in estimating yields; and (d) own production may not be included in estimates. Agricultural production is often estimated indirectly, using a combination of methods involving estimates of inputs, yields, and areas under cultivation. These methods can sometimes lead to crude approximations that differ from the true values.

Costs (implication for IDA borrowers and the Bank)

Since most IDA countries report GDP output by sector (including agriculture), improved country coverage is not the main cost issue; but improving the quality and timeliness of reporting will require additional costs. Several initiatives at improving overall statistical capacity building are under way.

This note was prepared by DECDG.

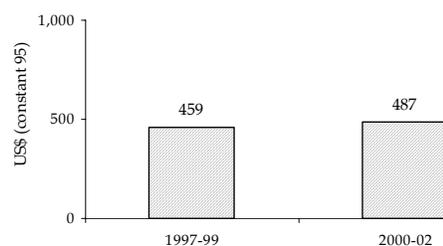**Indicator: Gross Domestic Product (GDP) per Capita**

Definition

GDP per capita is gross domestic product divided by mid-year population. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data are in constant US dollars (1995 US$).

Aggregation

From the total of 80 IDA countries 77, representing 97 percent of total population in the IDA countries, were used to aggregate the figures in the graph. Total GDP in each country was used to weight individual country data.

Gross domestic product (GDP) per capita

The IDA Countries Included

Albania, Angola, Armenia, Azerbaijan, Bangladesh, Benin, Bhutan, Bolivia, Bosnia and Herzegovina, Burkina Faso, Burundi, Cambodia, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Congo Dem. Rep., Congo Rep., Cote d'Ivoire, Djibouti, Dominica, Eritrea, Ethiopia, Gambia, Georgia, Ghana, Grenada, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, India, Indonesia, Kenya, Kiribati, Kyrgyz Republic, Lao PDR, Lesotho, Liberia, Madagascar, Malawi, Maldives, Mali, Mauritania, Moldova, Mongolia, Mozambique, Nepal, Nicaragua, Niger, Nigeria, Pakistan, Papua New Guinea, Rwanda, Samoa, Sao Tome and Principe, Senegal, Serbia and Montenegro, Sierra Leone, Solomon Islands, Sri Lanka, St. Lucia, St. Vincent and the Grenadines, Sudan, Tajikistan, Tanzania, Togo, Tonga, Uganda, Uzbekistan, Vanuatu, Vietnam, Yemen Rep., Zambia, Zimbabwe

Relevance to Poverty Reduction and MDGs

Sustained economic growth increases average incomes and is strongly linked to poverty reduction. Economic growth can also contribute to poverty reduction through larger public revenues, which can be dedicated to public programs to provide essential services for the poor. 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.

Sensitivity to Policy Change

Key elements of an environment that promotes GDP growth include macroeconomic policies that help maintain economic and financial stability; openness to trade that promotes access to world markets for goods, services, and knowledge; a regulatory and institutional environment for private sector activity that facilitates entrepreneurship and competition; and a financial sector that efficiently and sustainably mobilizes resources and channels them to their most productive areas. However, growth can be affected by other endogenous and exogenous variables not influenced by government policies. Therefore, sensitivity to policy change in this indicator is only partial.

Measurability and Reporting

GDP measures production in an economy and is a core economic aggregate. While GDP is a broad measure of economic activity, it does not, by itself, constitute or measure welfare or success in development. However, it remains (along with the broader measure of income, gross national income [GNI]) the best single indicator of economic capacity and progress. GDP in constant prices can be estimated by measuring the total quantity of goods and services produced in a period, valuing them at an agreed set of base-year prices, subtracting the cost of intermediate inputs, and adding net taxes on products, also in constant prices.

In developing countries, national accounts reporting is usually one of the most important statistical agencies, and these data are compiled annually by national statistical organizations and central banks on an annual basis. The quality of the data could be affected by various factors, including difficulty in measuring the growth of services in the absence of well-defined measures of output; unmeasured technical progress, which leads to underestimated volume of output; unmeasured changes in the quality of goods and services produced, which leads to underestimated value of output and value added; and informal economic activities. Several international agencies, including the UN, IMF, the World Bank, and other multilateral development agencies, along with bilateral agencies, have been providing technical assistance to national statistical offices for several years to help improve GDP estimates.

Costs (implication for IDA borrowers and the Bank)

Since most IDA countries report GDP, improved country coverage is not the main cost issue; but improving reporting quality and timeliness will incur additional costs. Several initiatives to improve overall statistical capacity building are under way.

This note was prepared by DECDG.

## Indicator: Sustainable Access to Rural Transport

Definition

Sustainable access to rural transport measures the number of rural people who live within 2 km (typically equivalent to a 20-minute walk) of an all-season road as a proportion of the total rural population. An "all-season road" is a road that is motorable all year by the prevailing means of rural transport (often a pick-up or truck that does not have four-wheel-drive).

Aggregation

Results for 31 countries, representing 87 percent of the total rural population in all IDA countries, show overall that 63 percent of rural dwellers have sustainable access to rural transport.

Proportion of rural population with access to an all-season road
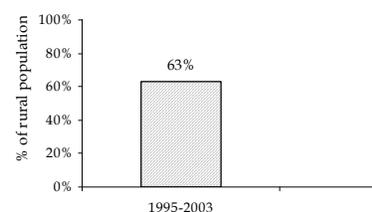
The IDA Countries Included

Albania, Azerbaijan, Bangladesh, Benin, Burkina Faso, Burundi, Cambodia, Cameroon, Chad, Ethiopia, Ghana, India, Indonesia, Kenya, Laos, PDR, Madagascar, Malawi, Mali, Mongolia, Nepal, Nicaragua, Niger, Nigeria (eight states), Pakistan, Papua New Guinea, Tajikistan, Tanzania, Uzbekistan, Vietnam, Yemen Rep., Zambia

Relevance to Poverty Reduction and MDGs

Physical isolation is a strong contributor to poverty. Populations without reliable access to social and economic services are poorer than those with reliable access. Problems of access are particularly severe in those rural areas that are distant from roads that carry motorized transport services on a regular basis. An estimated 700 million rural dwellers in developing countries (the majority living in IDA countries) are without reliable access. The large majority are poor. "Sustainable access to rural transport" is not an MDG indicator, but it is key to achieving many of the goals—underpinning pro-poor growth and improving social inclusion. Surveys have shown that poor people view isolation as a major contributor to their poverty and marginalization. Therefore, improving access to roads for rural dwellers is considered essential to promote rural development, improve access to human development services, raise incomes, and stimulate growth for poverty reduction. While "sustainable access to rural transport" is a good indicator of the shortfall in rural transport, the full picture requires more detailed information. For example, before upgrading tracks or paths to motorable condition, the availability of affordable transport services that can be operated on the road should be confirmed.

Sensitivity to Policy Change

The proposed indicator adequately captures changes in performance over time. Relatively small improvements in access to an all-season road have marked impacts in terms of improving the overall indicator results. An analysis of preliminary measures for two countries with time-series data (during the 19972002) confirms the sensitivity of the indicator to change over time, an average increase in accessibility of about 1 percent per year.

Measurability and Reporting

There are two main approaches to measuring this indicator: (a) household surveys that include information about access to transport, and (b) mapping data to determine how many people live within the specified catchments of the road network. Surveys of households and individuals are the most cost-effective way of obtaining information on rural access. The majority of the 31 available IDA country indicators have been established using this approach. The surveys are designed to produce high-quality data and be representative for the main segments of population (thus, the main subgroup "rural population" is adequately covered). Updates of the indicator will largely depend on the frequency of household surveys. These are usually expected to occur on a three-year cycle. To date, the focus has been on countries with the most population and the greatest land area. In collaboration with partner organizations, the Bank is developing a work program to ensure the sustainability of the proposed indicator through regularly updating surveys and expanding coverage to additional countries. The Bank plans to establish this indicator for an additional 20 IDA countries within the next 12 months, so it will be available for over 50 IDA countries by April 2005. A time series will be established for several countries and there will be further benchmarking against "non-IDA" countries.

Costs (implication for IDA borrowers and the Bank)

In countries that have completed national household surveys (including questions that permit this indicator), the marginal cost of producing the indicator is generally up to one day of experienced statistical input. Where there is a suitable survey that does not include a relevant question, there will be a one-off cost to negotiate, design, test, and incorporate the question. This cost is estimated at three days-plus to the cost of analysis. Where there is no household survey, it will be necessary to estimate the indicator by the mapping technique described above. The input for this is estimated to be about one month of analysis for each estimate of the indicator, provided that data on the location of roads and the rural population are available.

This note was prepared by Peter Roberts and Cordula Thum (TUDTR).

**Indicator: Household Electrification Rate**

Definition.

Access to electricity (electrification rate) is defined as the percentage of households with an electricity connection. This is consistent with various formulations of questions employed in demographic and health surveys (DHS), living standard measurement surveys (LSMS), and other household surveys, such as "Does your household have electricity?" or "What is the main source of lighting in your home?"

Household electrification rate

55%

1995-2003

Aggregation

From the total of 80 IDA countries, data were available for 49, representing 95 percent of the total IDA countries for the baseline period 1995-2003. "Number of households" was used to weight individual country data.
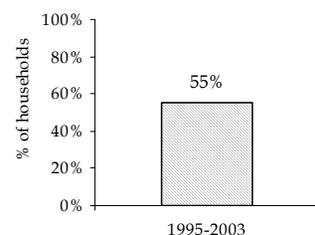
The IDA Countries Included

Albania, Armenia, Bangladesh, Benin, Bolivia, Bosnia and Herzegovina, Burkina Faso, Burundi, Cambodia, Cameroon, Central African Republic, Chad, Comoros, Cote D'Ivoire, Eritrea, Ethiopia, Georgia, Ghana, Guinea, Haiti, Honduras, India, Indonesia, Kenya, Kyrgyz Republic, Madagascar, Malawi, Mali, Mauritania, Moldova, Mongolia, Mozambique, Nepal, Nicaragua, Niger, Nigeria, Pakistan, Papua New Guinea, Rwanda, Senegal, Tajikistan, Tanzania, Togo, Uganda, Uzbekistan, Vietnam, Yemen, Rep., Zambia, Zimbabwe

Relevance to Poverty Reduction and MDGs

Household electricity consumption is linked to multiple development benefits, including higher participation in education, improved returns on education and wage income, improved productivity of home business, and improved productivity—especially for women—in meeting basic needs. The benefits of electricity are derived from appliances, including lights, electronics, refrigeration, air conditioning, and electric motors. For instance, electric lights provide close to 200 times more light than kerosene lamps, and this facilitates reading in the evening and carrying out other productive tasks. Children can study longer into the evening, which increases the likelihood that they will attend school. For home businesses, electricity improves productivity through increased lighting, and it permits the use of small machines.

Sensitivity to Policy Change

The indicator is most sensitive to policy change in countries with good regulatory framework for rural electrification that provides for private companies, NGOs, local authorities, and communities to initiate electrification projects in addition to the role of the incumbent public utility.

Measurability and Reporting

Household surveys (DHS, LSMS, income and expenditure, and others) are the preferred survey instruments to measure the indicator since they overcome the weaknesses in data provided by national power utilities. Utility data often do not include households that, for various reasons, do not have a meter. Households may not possess a meter because they purchase electricity from a neighbor or because they pay a flat fee for electricity that is included in the household rent. Electricity theft is common in some countries. In addition, utilities employ different definitions of "electrification" making it difficult for accurate cross-country comparisons of utility-generated electrification data. National household surveys generally avoid the biases of utility data by asking simply "Does your household have electricity?" or "What is the main source of lighting in your home?" When households respond "yes" to the first formulation or "electricity" to second, the household is deemed to have electricity access. All DHS, LSMS, and many income and expenditure surveys are expected to include questions on which the calculation of the indicator can be based. Coverage of IDA countries by DHS, LSMS, and other household surveys during the next 3-5 years is expected to be in the range of 50-55 countries, covering about 95 percent of the households in IDA countries.

Costs (implication for IDA borrowers and the Bank)

IDA countries will have to insure that indicators for household electricity are included in their existing national surveys; this will add technical, administrative, and collection, analysis, and dissemination costs to the surveys. For the Bank, additional costs are expected. These costs relate to annual collation of the indicators from household surveys as they become available. As a part of the Bank's initiative to build an infrastructure indicators database, data on the electrification rate will be collected and collated by staff from DECDG with technical support and backup from EWDEN. The additional cost to the Bank is estimated at $50,000.

This note was prepared by Kyran O'Sullivan (EWDEN), Douglas French Barnes (ESMAP), and Masami Kojima (COCPO).

 **Indicator: Proportion of Population Using Solid Fuels**

Definition

charcoal, crop residues, and dung) and coal as their primary source of domestic energy for cooking and heating. This corresponds to the proposed MDG indicator No. 29 (Indicators for Monitoring the Millennium Development Goals, Definitions, Rationale, Concepts and Sources, UNDP Draft 11/07/03).

Proportion of households using solid fuels

Aggregation

From the total of 80 IDA countries, data were available for 28 for the baseline period 1995-2003. When aggregated, the proportion of households using solid fuels in these countries was calculate to be 78 percent, representing 77 percent of total number of households in the IDA countries. The estimated number of households in each country was used to weight individual country data.
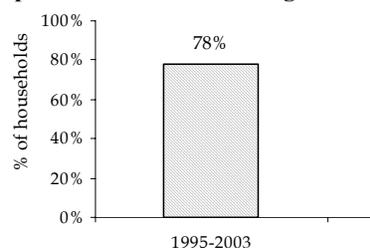
The IDA Countries Included

Armenia, Benin, Bolivia, Burundi, Cambodia, Cameroon, Eritrea, Ethiopia, Ghana, Haiti, India, Indonesia, Kenya, Madagascar, Malawi, Mali, Nepal, Nicaragua, Niger, Nigeria (eight states), Pakistan, Papua New Guinea, Rwanda, Tajikistan, Uganda, Vietnam, Zambia, Zimbabwe

Relevance to Poverty Reduction and MDGs

Adverse health effects caused by solid fuels arise from exposure to respirable particles, carbon monoxide, nitrogen and sulfur oxides, and benzene from the combustion of solid fuels in traditional stoves and hearths and therefore. These impacts have led the World Health Organization (WHO) to cite exposure to indoor smoke from solid fuels as one of greatest environmental health risks (*The World Health Report 2002,* Reducing Risks, Promoting Healthy Life (p. 69). WHO. Geneva, 2002). It may be noted that charcoal and coal can be viewed as "transition fuels." They are between two and five times denser than wood with the same energy yield; they tend to be used in improved stoves and hearths, and therefore they are associated with much lower levels of indoor air pollutants than wood used in a traditional three-stone open fire. The health risks include acute respiratory infections in children and chronic bronchitis and pulmonary disease in adults, and there is emerging evidence of links to perinatal mortality, asthma in children, and tuberculosis and lung, nasopharyngeal, and laryngeal cancers in adults. Women and children are most at risk because of their participation in cooking tasks. Combustion of wood, bituminous coal, and lignite contribute to outdoor air pollution, especially when used in inefficient boilers without control equipment.

Wood fuels are the primary source of energy for approximately two billion people and will remain of prime importance in the developing world for the foreseeable future. Environmental effects from solid fuels include local deforestation, soil erosion, and soil nutrient removal. For example, intensive use of crop residues as fuel reduces the availability of nutrients that could be potentially used for keeping soil quality, and more use of charcoal implies more use of fuel wood which may lead to local deforestation. The livelihood of the rural poor heavily depends on the ecosystem capacity to provide a sustainable source of wood fuel. The predominant role of agriculture (conversion to cropland and sometimes livestock grazing) in reducing forest cover needs to be noted in this context. In addition, rural households wood fuel needs are often met from collections of dead wood. At the national level in many countries, wood biomass production in indigenous forests exceeds consumption.

Sensitivity to Policy Change

The indicator is most sensitive to policy change when low cost biomass is not available in an area (often urban areas). When only purchased biomass is available to households they tend to substitute liquefied petroleum gas (LPG) and other modern petroleum fuels for these. The indicator is less sensitive to policy change in rural areas with abundant supply of low cost biomass. Public information policies to make known health impacts of exposure within enclosed areas to smoke from cooking fires may also affect the household use of solid fuels.

Measurability and Reporting

Household surveys usually contain the question, "*What type of fuel does your household mainly use for cooking?"* and provides a list of fuels based on those normally used in the country. This generic question has been used to calculate the indicator for the 28 IDA countries for which data were available. Although few of the surveys asked about heating fuels, it is presumed that calculation of the indicator can be based on the cooking fuel questions, since households using solid fuels in cooking stoves can be assumed to also use solid fuels for space heating in hearths, if they experience cold seasons.

Costs (implication for IDA borrowers and the Bank)

IDA countries will have to insure that indicators on the use of solid fuels are included in their existing national surveys; this will add technical, administrative, collection, analysis, and dissemination costs to the surveys. For the Bank, additional costs are expected. These costs relate to annual collation of the indicator from household surveys as they become available. As a part of the Bank's initiative to build an infrastructure indicators database, data on the household use of solid fuels will be collected and collated by staff from DECDG with technical support and backup from EWDEN. The additional cost to the Bank is estimated at $50,000.

This note was prepared by Kyran O'Sullivan (EWDEN), Douglas French Barnes (ESMAP), and Masami Kojima (COCPO).

ADDITIONAL COSTS OF COLLECTING INDICATORS FOR IDA MONITORING SYSTEM[1]

1.   The IDA results measurement system will generate a more intense demand for timely statistical data, place additional pressures on statistics agencies in IDA countries, and require a number of international organization to collect, collate and publish some additional data sets on a time-series basis.

2.   Three issues need to be considered analyzing the additional costs of monitoring the possible set of outcome indicators: the incremental cost of the data collection and the analysis effort required at the national level to calculate and report reliable estimates of each indicator; the resources required to strengthen statistical capacity in institutions at the national level; and the cost of strengthening and maintaining statistical activities at the international level.

3.   This Annex considers each issue in turn. In summary, the incremental cost of collecting the set of proposed indicators is estimated to be around $16 million per year for all IDA countries. The costs to build better statistical capacity in IDA countries and in international organizations that collect and collate international statistics is estimated to be around $120 million per year. This is comprised of the incremental cost of building and maintaining statistical capacity (estimated at around $90-$100 million per year), and the cost of improving the capacity of the international statistical system (estimated at around $24-$28 million per year).

4.   Not all of these costs are directly attributable to the IDA results measurement program, and there already exists a strong rationale for statistical capacity building. However the broad need to increase the frequency with which household surveys are conducted, to improve the capacity of national statistics institutions to collect and analyze statistics, and to strengthen the capacity of international institutions to collect and collate international statistics could cost a total of about $140 million per year globally.

A. Incremental Costs of Collecting, Analyzing, and Reporting Indicators

5.   At the national level, the cost of obtaining accurate and timely estimates of the various indicators depends on the cost of the system that is used to derive the indicator. There are two broad categories: indicators that can be estimated directly from household surveys, and those that cannot.

6.   ***Indicators obtained from Household Surveys.*** Indicators in the possible set normally obtained directly from nationally representative household surveys in IDA countries are:

Indicator	
2	Prevalence of underweight children under five years of age
3	Under-5 child mortality
4	Proportion of 1-year old children immunized against measles
6	Proportion of births attended by skilled health personnel
9	Proportion of population with sustainable access to an improved water source
16	Access of rural population to an all-weather road
17	Household electrification rate
18	Households using solid fuels as main fuel

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[1]   The annex was prepared by Development Data Group (DECDG) in the World Bank.

7.   Apart from the first two indicators (prevalence of underweight children, and child mortality), these are relatively easy to collect from any national household survey or census providing that definitions are clearly and consistently applied during enumeration. An analysis of past trends, and existing plans for the Bank's Living Standards Measurement Surveys (LSMS) and surveys based on the Core Welfare Indicator Questionnaire (CWIQ), the Demographic and Health Surveys (DHS) sponsored by USAID, and the UNICEF Multiple Indicator Cluster Survey (MICS) reveal that almost all IDA countries conduct at least one major survey in a three-year period, and will do so during the IDA14 period. Assuming that these surveys are already funded, data collection for these indicators will not require additional surveys, but may require dialogue with the agencies concerned and with statistical offices to ensure that appropriate questions are included in surveys, and that comparable definitions are used. There may also be costs for responsible agencies, for example to employ researchers to conduct additional analyses of survey data.

8.   Surveys that collect data to calculate information on child malnutrition (Indicator 2) are normally more costly that standard socioeconomic surveys, because of the need to accurately weigh children during the enumeration process. However, all of the major internationally sponsored surveys collect child malnutrition data (MICS, DHS, LSMS, and CWIQ). Given past trends and future plans for these surveys it seems reasonable to assume that most IDA countries will conduct at least one of these surveys in a three-year period, and at least one survey within the IDA14 period; and so the additional cost equates to that of ensuring that data are collected from different household surveys in a comparable manner—and that these data are then fully utilized by the international agencies responsible for compiling and reporting these data, in this case WHO and UNICEF.

9.   Collecting information to calculate child mortality rates (Indicator 3) tends to be the concern of surveys specifically designed to collect demographic data, such as the MICS and DHS, and population censuses. Some LSMS surveys include a mortality module, but LSMS samples used for these modules are typically too small to allow reliable estimates. Where available, data from vital registration systems may also be used, but these systems are not typically well-developed in low-income countries. In countries where they are conducted, the frequency of DHS surveys tends to be every five years; but their coverage of the group of IDA countries is not complete. MICS tend to cover more IDA countries than DHS, but they have been conducted only once every five years—MICS1 in 1995 and MICS2 in 2000, with MICS3 planned for 2005.

10.   Since 1995 UNICEF and WHO have used an estimation methodology that produces "best fit" lines for a number of overlapping estimates from different household surveys and other sources. As a result, annual estimates—and trends—can be obtained, and estimates are available for almost all IDA countries every year. The quality of these estimates for any particular year is dependent on the quality and frequency of surveys that are used in the estimation process.

11.   DHS and MICS surveys are conducted roughly every five years. The cost of decreasing this, say to three years, can be estimated, although the increase in precision in the resulting mortality rates that would be gained is more difficult to quantify. The cost of these surveys will vary from country to country, but the typical cost of a DHS ranges from about $0.5 million to $1.5 million, and for MICS between about $200,000 and $500,000. Taken together, around 75

percent of IDA countries (covering over 95 percent of the population) will conduct either a DHS or MICS survey in the next five years. Table C1 shows the additional cost of covering the same countries on a three-year instead of a five-year cycle to be between $4 and $11 million per year.

**Table C1. Estimated Additional Annual Cost of Conducting
DHS and MICS Type Survey Every Three Years ($million)**

Survey	Approximate cost of survey, per country	Annual cost for 40 countries, with one survey every 5 years	Annual cost for 40 countries, with one survey every 3 years	Additional annual cost of increasing frequency from 5 to 3 years
DHS	0.5-1.5	4-12	7-20	3-8
MICS	0.2-0.5	1.5-4	3-7	1-3

Source: World Bank Staff estimates.

12.   ***Indicators Not Obtained from Household Surveys.*** Indicators that cannot normally be obtained directly from household surveys are:

Indicator

1	Proportion of population below a standardized poverty line
5	HIV prevalence rates of women aged 15-24 (requires sufficient data from HIV testing of pregnant women to enable estimates to be made of a specific age group)
7	Ratio of girls to boys in primary and secondary education (normally estimated from school enrollment data, although the data may also be obtained from some household surveys)
8	Primary school completion rate (this requires school enrollment, completion or repeater data, and estimates of the population of school children of primary-leaving age, usually from population projections derived from census baselines. Like Indicator 7, some household surveys may also be able produce this indicator directly)
11	Formal cost required for business start-up (based on a Bank-run survey)
12	Time required for business start-up (same as Indicator 11)
13	Public financial management (based on a Bank-run survey and assessment process)
14	Agricultural value added (requires estimates of agricultural production, prices, and a number of other inputs)
15	GDP per capita (requires national accounts data, and population estimates)

13.   Estimating the proportion of the population below a standardized poverty line requires a good quality income/expenditure survey, and estimates of purchasing power parity (PPP). Aggregates for IDA countries are estimated by the Bank's Research Group, using estimation methods for countries and years in which direct estimates are not available. These estimates also rely on good quality disaggregated data on economic growth and relative prices among countries. Over 75 percent of IDA countries are participating in the new 2003-06 round of the International Comparison Program (ICP), which will substantially improve the quality and coverage of data for the calculation of poverty rates in PPP terms. The frequency with which countries currently conduct income/expenditure surveys is roughly every five years or so. Surveys of this type are driven by domestic policy needs: for example, for analysis to underpin PRSPs or to form the basis for poverty assessments; more frequent surveys, would require additional resources to carry our surveys of this type, which typically cost between $300,000 and $1 million per country.

14.   Data for HIV prevalence rates are based on modeled estimates calculated by UNAIDS. Estimates have been made for all IDA countries, for years 2000 and 2002. It is likely that data from these estimation methods will be available in future at a frequency to allow changes in aggregates from one three-year period to another. Quality is also likely to increase, particularly since the recent inclusion of blood testing in some 18 DHS surveys.

15.   Data for indicators based on school enrollments (Indicator 7 and Indicator 8) are normally produced from education management information systems, based on school records. There are often quality problems associated with the recording of enrollment, such as those caused by age misreporting; there would be development costs associated with addressing these issues in many countries. The primary school completion rate (PCR) is a more difficult statistic to produce than data on enrollments, in terms of data sources required, since information is needed on completion and this is not always recorded by schools. The PCR also requires accurate estimates of the numbers of children in the population of school completion age, which in turn requires a good quality census or vital registration system, and good national capacity to analyze demographic data and make forecasts.

16.   The two indicators on time and cost of business start-up, and the indicator on public financial management, are currently collected through Bank-managed survey mechanisms, and the burden on countries to collect this information is therefore relatively low. The cost per business survey is typically $3,000 per country, while the cost of each public financial management survey is typically $10,000 to $15,000 per country. Therefore, the estimated theoretical cost for the Bank for the country coverage as expressed in this paper (39 countries for time and cost of business start-up and 24 countries for public financial management) is between $350,000 and $475,000. However, the Bank has already started to expand coverage for other purposes. Increasing coverage beyond that, to include a larger number of countries on which to base estimates for IDA purposes, would cost between $13,000 and $18,000 per country per year. For example, a request to increase the coverage with an additional set of 20 countries could approximately cost between $260,000 and $360,000.

17.   Finally, coverage the two indicators related to economic output—agricultural value added, and national accounts data—in international databases is largely complete for all IDA countries; however, there are issues of quality in many countries. Since national accounts estimates rely on a large number of data sources, including household survey data, demographic data, and business surveys, the key to improvement lies in developing sustainable statistical capacity.

B. Increasing and Sustaining Country Capacity to Collect Statistical Data

18.   The second issue to consider in reviewing the cost of data collection is the cost of sustainably improving statistical capacity; for example, to satisfy the "minimum" national demand with acceptable quality standards. The data sources for most indicators in the proposed IDA set form part of what might be considered by many to be a minimum requirement for monitoring and evaluation of poverty reduction strategies: a system of household surveys, including income/expenditure surveys; a regular census and population forecasts; national accounts and price data; and information systems on health and education services. Most poverty reduction strategy papers (PRSPs) are reviewed on a three-year cycle, and so one approach to estimating the cost of an effective monitoring system for IDA is to try to estimate the cost of improving statistical systems in all IDA countries to an acceptable level.

19.   This is clearly a subjective assessment and one that will differ from country to country, because of different levels of existing capacity and the differing needs of statistics users. However, increasingly IDA countries are basing their statistical systems on strategic plans, often

developed as part of the process of satisfying monitoring and evaluation needs for poverty reduction strategies. These plans provide some basis for estimating the required development and running costs needed. Assuming that there is a relationship between these costs and country size, income level, and the level of existing statistical capacity, a model can be constructed to estimate, very roughly, the costs. This approach was also used for a similar cost estimation exercise presented and discussed at the Second Roundtable on Managing for Results, held in Marrakech in February 2004.[2] Participants at a seminar on statistical capacity issues at that meeting found the results to be plausible, although it should be recognized that more research into the cost of statistical activities and the assumptions underpinning the analysis is needed.

20.   The assumptions made are as follows:

- the costs of running a statistical system meeting the recommendations of the IMF General Data Dissemination system range between $1.25 and $2 million per year per country, depending on country size;

- low-income countries can meet only half of these costs (other countries can meet all costs). This is largely based on analyses of household surveys, many of which are supported by externally agencies in the poorest countries;

- the cost of additional capacity improvement is assumed to be related to the level of existing capacity and country size. There are no comparable assessments of capacity across IDA countries, so a proxy indicator, based on adherence to a number of international statistical conventions, has been used. The cost range is from zero, for countries with good adherence to international conventions, to $4 million per year, for the largest countries with low adherence to international standards; and

- that existing levels of donor support range between 0.5 and $1 million per year per country.

21.   The annual incremental cost of improving and maintaining statistical systems can be estimated as the difference between the cost of running and developing better statistical systems, and the existing levels of donor and government financing. The results are shown in the following table:

**Table C2. Estimated Additional Annual Cost of
Statistical Capacity Building in IDA Countries ($ million)**

Country Groupings	Average incremental cost per country	Total annual incremental cost
IDA countries with population below 10 million	0.8	38
IDA countries with population between 10 and 50 million	1.7	42
IDA countries with population greater than 50 million	1.7	13
Total	1.2	93

Source: World Bank Staff estimates.

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[2]   See *Better Data for Better Results: An Action Plan for Improving Development Statistics*, at http://www.managingfordevelopmentresults.org/documents/MarrakechActionPlanforStatistics.pdf

C. Increasing and Sustaining the Capacity of the International Statistical System

22.   The cost of strengthening the international statistical system is the final component in assessing the costs of generating higher quality outcome data for IDA monitoring. The system of data reporting at international level is managed by the specialized agencies in each field, and some agencies have significantly improved data availability by some agencies by increasing their own resources available for these tasks, and by introducing new data collection and estimation methods. UNICEF, for example, has made significant additional investments in data collection since 1995 with the MICS surveys and, in conjunction with WHO, has increased data availability for measuring mortality through the use of modeling techniques. The Bank is trying to improve the quality of Purchasing Power Parities through leadership of the 2003-2006 International Comparison Program, and also takes the lead with the Living Standards Measurement Survey and the Core Welfare Indicator Questionnaire.

23.   Important components of the international system were analyzed for the Global Statistical Challenge seminar at the Second International Roundtable on Managing for Development Results[3]. For example, it was estimated that on the basis of expert estimates, the cost of the incremental effort needed to make significant further improvements was estimated at between $24-28 million per year for the next three years. Note that these are global estimates, since it is impractical to distinguish between costs related to IDA and non-IDA countries in the work programs of most agencies.

24.   The estimates include the cost of helping all low-income countries develop statistical strategies and master plans ($9-10 million), preparing for the next census round ($5 million), setting up an international household survey network for making better use of survey data and increasing comparability of estimates ($5 million), and increasing the capacity of UN agencies to analyze and produce better data for MDG monitoring ($5-8 million).

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[3]   See *Better Data for Better Results: An Action Plan for Improving Development Statistics*, at http://www.managingfordevelopmentresults.org/documents/MarrakechActionPlanforStatistics.pdf.

DATA ISSUES FOR POSSIBLE INDICATORS FOR IDA14

1.   This annex describes the sources and availability of the 18 indicators proposed in this paper, and options for setting aggregate performance targets for IDA countries.   Ten of the indicators covering poverty, education, health, water and infrastructure development—have been adopted from the Millennium Development Goals (MDGs).   These or similar indicators appear in many Poverty Reduction Strategy Papers (PRSPs). In addition, total GDP per capita and agricultural value-added have been included as indicators of economic performance and, a composite indicator for public financial management, two indicators of private sector development (the time and cost of starting a business), and indicators measuring access of rural people to all-season roads and modern energy have been added.   The private sector development indicators are already part of the IDA13 interim monitoring set along with primary school completion rate and the proportion of 1-year old children immunized against measles.   Table D1 lists the proposed indicators, and identifies these as correspondence to the MDG indicators, with the United States' Millennium Challenge Account (MCA) and   the United Kingdom's Department for International Development Public Service Agreement (PSA).

Table D1. IDA Monitoring Indicators and Other Monitoring Initiatives

Indicator	*MDG indicators*	*US MCA list*	*DFID PSA list*
1. Proportion of population below $US 1/day poverty line	Yes	No	Yes
2. Prevalence of underweight children under five years of age	Yes	No	No
3. Under-5 mortality	Yes	No	Yes
4. Proportion of 1-year old children immunized against measles	Yes	Yes	No
5. HIV/AIDS prevalence rate of women age 15-24	Yes	No	Yes
6. Proportion of births attended by skilled health personnel	Yes	No	Yes
7. Ratio of girls to boys in primary and secondary education	Yes	No	Yes
8. Primary school completion rate	Yes	Yes	No
9. Proportion of population with sustainable access to an improved water source	Yes	No	No
10. Fixed lines and mobile telephones per 1,000 inhabitants	Yes	No	No
11. Formal cost required for business start-up	No	Yes	No
12. Time required for business start-up	No	Yes	No
13. Public financial management	No	No	No
14. Agricultural value added	No	No	No
15. GDP per capita	No	No	No
16. Access of rural population to an all-season road	No	No	No
17. Household electrification rate	No	No	No
18. Proportion of households using solid fuels	Yes	No	No

2.   These indicators are not recommended for use as targets. Some, such as HIV prevalence and public sector management, lack adequate data for measuring trends over time. Others are based on data that are often more than three years old, or are subject to considerable fluctuations due to exogenous factors such as droughts and other natural causes. So while such indicators are important for monitoring progress, they are not suitable for setting targets.

A. Data Availability

3.   Although 11 out of 18 possible indicators are indicators for the eight Millennium Development Goals and many have often been included in PRSPs, data are lacking for many countries or are available only at infrequent intervals. Table D2 shows the extent of coverage of the proposed indicators in PRSPs and in the Bank's World Development Indicator (WDI) database for IDA countries.

Table D2. Availability of Proposed IDA Monitoring Indicators and Their Presence in PRSPs

	PRSPs that include indicator[a] (percent)	PRSPs covering subject (percent)	Availability in WDI database[b] (percent)	Typical frequency of reporting[c]	Agency responsible for data compilation
1. Proportion of population below $1/day poverty line	14	100	19[e]	7 years	World Bank
2. Prevalence of underweight children under five years of age	44	69	53	6 years	UNICEF, WHO
3. Under-5 mortality	75	97	100	3 years	UNICEF, WHO, World Bank
4. Proportion of 1-year old children immunized against measles	11	72	100	Annual	UNICEF, WHO
5. HIV prevalence rate of women 15-24	6	67	66	(…)	UNAIDS, UNICEF
6. Proportion of births attended by skilled health personnel	55	100	66	7 years	UNICEF, WHO
7. Ratio of girls to boys in primary and secondary education	64	78	64	2 years	UNESCO
8. Primary school completion rate	30	100	78	4 years	UNESCO, World Bank
9. Proportion of population with sustainable access to an improved water source	86	94	94	10 years	UNICEF, WHO
10. Fixed lines and mobile telephones per 1,000 inhabitants	33	48	100	Annual	ITU
11. Formal cost required for business start-up	3	17	69	Annual[d]	World Bank
12. Time required for business start-up	11	17	69	Annual[d]	World Bank
13. Public financial management	0	97	30[f]	(…)	World Bank
14. Agricultural value added	19	64	90	Annual	UNSD, World Bank
15. GDP per capita	39	100	96	Annual	UNSD, World Bank
16. Access of rural population to an all-season road	14	42	14[f]	(…)	World Bank
17. Household electrification rate	28	56	23[f]	(…)	World Bank
18. Proportion of households using solid fuels	11	36	20[f]	(…)	WHO

Notes:

(…) means not enough data.

a   The number of countries with full PRSPs was 36 as of March 2004.

b   As a percentage of countries eligible for IDA borrowing (during years 2000-02).

c   Frequency is calculated as the average years per data point for IDA eligible countries with at least one data point since 1990. Frequency of reporting for the current decade might be higher for some indicators.

d   Annual since 2002.

e   In the aggregate calculation, interpolated data for 48 countries are available, representing 91% of population in IDA countries.

f   Not yet in the World Development Indicators (WDI) Database. Collected for the IDA RMS.

4.   Country coverage is relatively limited for poverty rates (both national and dollar-a-day poverty), private sector development, and HIV/AIDS, but there are gaps in virtually all data series. Many countries lack sufficient data to calculate trends for poverty, birth attended, HIV/AIDS prevalence, and access to water and sanitation. Furthermore, there are often lags in availability. For some indicators, in particular, poverty, education, and some health indicators, the most recent source data are several years old. Key exceptions are GDP per capita, value added from agriculture, primary completion rates (for which special estimates were recently produced by the World Bank), and measles immunization. Additional lags are introduced when national data are compiled in international databases. The most recent data available now in the WDI database are for 2001 or 2002. In late 2004 or early 2005 data will become available for 2002 or 2003. Improvements in data availability and timeliness are possible and must be addressed by the agencies responsible for compiling international data sets; these agencies should be encouraged to work more with countries to improve data collection practices.

B. Improving Data Reliability

5.   A significant effort has already been made to improve estimates of child mortality rates, which are often available from a number of sources such as household surveys, population censuses, and, less commonly, vital registration systems. These different sources may give different estimates for the same year or for different years, and trends are therefore often difficult to assess. In addition, in many countries, particularly those with weaker statistical systems where vital registration systems are not in place, estimates may be sporadic and based on household surveys conducted every three to five years. To overcome this problem and produce harmonized estimates that reliably measure child mortality, UNICEF and the World Bank have adopted a common methodology for estimating trends. This is a smoothing procedure based on fitting a regression line to available data, using least-squares regression of weighted variables. In this model all available data, from both survey and vital registration sources, are used with weights assigned to represent the relative reliability of different observations. (For example, estimates derived from events reported retrospectively are given less weight as the length of time between the survey and the events being reported increases). The estimated trend can then be used to make a single estimate for any year, interpolate missing values, and make estimates for future years based on extrapolation.

6.   This example shows that estimation procedures may be used to fill gaps in international databases and to harmonize different estimates of the same indicator—but it should be recognized that the results are a set of modeled estimates used to supplement more direct observations obtained from surveys and administrative sources. Work to improve other indicators, at both country and international levels, is also taking place.

C. Aggregation Methods

7.   Aggregation is needed to reduce many country observations to a single observation representative of IDA as a whole. The appropriate aggregation method is determined, in part, by the nature of the indicator and by the use to which the indicator will be put. Most of the proposed indicators are ratios representing country-level results. The aggregate measure should therefore be, an average or representative value of the ratio. It is common practice to calculate averages of ratios using as the normalizing (or denominator) variable as a weight. This results in an aggregate ratio that corresponds to the ratio of the aggregates. For example, the population-weighted average of GDP per

capita is equivalent to the ratio of total GDP divided by total population. Another approach is to select a weighting variable that reflects the relative importance of an observation. Population or GDP weights are commonly used, but the number of poor people or the volume of IDA borrowing could be also used as weights. A simple average is a special case that gives equal weight to each observation in an aggregate. The median value is a useful alternative to the average, especially in cases where the distribution of observations is irregular. Both weighted and unweighted medians can be constructed.

8.   In the interim IDA monitoring system, the aggregate measure of measles immunization rates was based on a weighted average using the number of births as weights. The primary completion rate was weighted by the total number in the relevant age group. The number of days needed to start a business was aggregated using the total population. Targets for these indicators were set both in terms of changes in the averages and the number of countries showing improvement.

9.   There are two concerns with the use of weighted aggregate measures. The first is that, by design, they are most representative of the largest countries. In the case of IDA members, India accounts for 42 percent of the population and 44 percent of GDP. An aggregate that includes India may have different characteristics than one for which data from India (such as births attended by skilled health personnel) are not available. An unweighted aggregate will avoid the problem of large country dominance, but may yield an aggregate that is unrepresentative of the experience of a large number of people. Another concern is that changes in an aggregate measure reflects both changes in the country-level indicator and in the weighting variable. This can result in anomalous behavior of the aggregate; for example, with changing weights the aggregate ratio can fall even when the country-level ratios are all rising. Instead of using different weights, the weights could be calculated for the opening period and held fixed in the later period. But this introduces conceptual difficulties in interpreting future values of the aggregate indicator. For these reasons, weights based on current values of the denominator have been used whenever appropriate.

D. Treatment of Missing Observations

10.   One other problem in constructing aggregates is the treatment of missing observations. For an aggregate to be truly representative of IDA, it should include data for all IDA countries. This is seldom feasible. When data sets are incomplete, possible responses to enable aggregation include the estimation of missing data: estimating the aggregates using only countries with data in each time period or the use of "proxy" indicators for which data might be more readily available. The practice in the World Development Indicators has been to use estimates based on the sample of countries with available data, provided that the number of available observations exceeds an agreed threshold, or to estimate the aggregate based on the relationship of the available observations to the missing observations in some base period for which data are complete.

11.   Because the IDA monitoring system is intended to measure change over time, it is particularly important that aggregates be estimated over a consistent set of countries. The addition or loss of an influential country could significantly affect the measured change in the aggregate. However, because of intermittent reporting, the number of contemporaneous observations for a given indicator is typically less than shown in Table D2. The solution adopted below involves two steps:

Comparison between 1997-1999 and 2000-2002:

a. The baseline value for each included country is the three year average of 1997-99 and the current value is the three year averages of 2000-02, except for indicators with data only available in certain years.

b. Only countries with sufficient data can be included. For indicators with nearly full data coverage, only countries with observations in both 1999 and 2002 are included; for indicators with irregular data coverage, only countries with at least one observation in the period 1990-1999 and at least one observation in 2000-2002 are included. Any missing figures for 1997-2002 are imputed using the estimated rate of change based on the observations closest to the missing figures(based on an assumed exponential trend). For indicators with data available in certain specific years, only countries with observations in both baseline year and most recent year are included.

These two steps are adjusted to measure the past performance:

1990 and 2000 are the two years in comparison.

i. The baseline value for each included country is for 1990, and the current value is for 2000.

ii. For indicators with nearly full data coverage, only countries with observations in both 1990 and 2000 are included; for indicators with irregular data coverage, only countries with at least one observation in the period 1987-1994 and at least one observation in 1995-2002 are included. Any missing figures for 1990 and 2000 are imputed using the estimated rate of change based on the observation closest to 1990 and latest observation to estimate a historical rate of change for each country (based on an assumed exponential trend).

12. A similar process could be employed in future years, provided all of the included countries continue to report data at an acceptable frequency. If a country included in the baseline estimates ceases to report, it would have to be dropped and the baseline data recalculated. Similarly, if data become available for a country not included in the historical baseline, it will have to be factored into the baseline estimates to ensure comparability with future aggregate measures.

E. Past Performance

13. Table D3 summarizes the past performance of IDA countries for 11 indicators (eight of which are MDG indicators) for which historic data are available. The table compares rates of change between the 1990 base year and 2000 for the aggregate of IDA countries, using different methods of calculating average rates of change. Three growth rates for each indicator are calculated based on the median (col. c), the simple average (col. b), and the population weighted average (col. d) of the individual country rates of change. The difference between the weighted and unweighted average rates of change is pronounced for some indicators (such as the proportion of births attended by skilled health personnel), because the rates of change in large countries are different from the simple average, and in some cases, data are missing from countries with large populations. The following three columns show the population-weighted average values of the indicator in 1990 (col. e) and 2000 (col. f) and the annual average change in the aggregate indicator (col. g). The

Table D3: Historical Performance between 1990 and 2000

Indicator	No. of countries included	Country annual growth rates [a]			Average value of indicator [b]			Annual rate of change required to meet MDG targets [b] (percent)
		Simple average (percent)	Median (percent)	Weighted average (percent)	Weighted average estimated value, 1990	Weighted average estimated value, 2000	Annual rate of change between 1990 and 2000 [b] (percent)	
	a	b	c	d	e	f	g	h
1. Proportion of the population below $US 1/day poverty line (percent)	48	(…)	(…)	(…)	38	33	-1.3	-2.8
2. Prevalence of underweight children under 5 (percent)	46	-1.2	-1.0	-2.5	49	37	-2.8	-2.8
3. Under-5 mortality (per 1,000 live births)	77	-1.7	-1.7	-2.4	142	121	-1.6	-4.4
4. Proportion of 1-year-old immunized against measles (percent)	76	1.0	0.8	0.6	58	60	0.4	1.8
6. Proportion of births attended by skilled personnel (percent)	39	1.5	1.9	2.8	30	40	2.7	4.3
7. Proportion of girls to boys enrollment (percent)	49	0.9	0.5	1.6	72	83	1.5	1.3
8. Primary school completion rate (percent)	55	1.9	1.4	1.2	66	73	0.9	1.7
9. Sustained access to water (percent)	34	1.3	1.1	1.7	67	78	1.7	0.9
10. Fixed lines and mobile telephones per 1,000 inhabitants	78	11	10	15	8	31	13	n/a
14. Agricultural value added (constant $US, billions)	68	0.5	1.8	2.5	207	263	2.4	n/a
15. GDP per capita (constant $US)	72	-0.1	0.8	2.1	383	470	2.0	n/a

[a]   Some indicators are excluded from this table because the historical performance cannot be establish. All rates of change are calculated between 1990 and 2000 using the exponential growth method.

[b]   Historical growth rates were calculated between 1990 and 2000 using an exponential growth function. Some indicators are excluded in the analysis since the historical performance can not be established because of insufficient data. Expected average value is calculated by assuming that the rate of change observed for 1990-2000 will remain unchanged for the period 2000-2015. The final MDG target value for the IDA countries was obtained by applying the MDG target (planned reduction or increase) to the baseline estimated value in 1990. The average annual growth rate required to meet the MDG target for the period 1990-2015 was then derived from the estimated value in 1990 and the target value for 2015. Two MDG indicators do not have specific targets, and 90 percent has unofficially been adopted by the UN and the World Bank as the target (90 percent measles vaccination coverage and 90 percent of births attended by skilled health personnel). This analysis was not possible for another two MDG indicators ("HIV/AIDS" and "Fixed lines and mobile telephones"), since they do not have quantifiable targets.

differences between the population-weighted average rate of change and the rate of change in the averages suggest that there are some compositional effects; that is, the rate of change in the average values is determined, in part, by changes in the relative size of countries. The final column (h) shows the annual rate of change required to meet the MDG targets calculated for the period 1990-2015.

F. Indicator Strengths and Weaknesses of Indicators

14.   In light of the discussion above, the Table D4 provides a summary of the strengths and weaknesses of the 18 possible indicators.

Table D4: Summary of Strengths and Weaknesses of Possible Outcome Indicators

Indicator	*Strengths* [a]	*Weaknesses*
1. Proportion of population below $1/day poverty line	• Directly linked to MDG 1 ("Eradicate extreme poverty and hunger") and is the same as MDG indicator 1 • All completed PRSPs monitor this indicator • Based on nationally representative household surveys; new estimated available every 3 years	• Comparisons across countries at different levels of development may pose a problem because of the consumption of non-market goods • $1 a day line does not measure similar welfare levels in wealthier countries or harsh climates
2. Prevalence of underweight children under five years of age	• Indicates malnourishment which is directly linked to MDG1 ("Eradicate extreme of malnourishment") and is the same as MDG indicator 4 • A determinant for other MDGs such as MDG 4 "Reduce Child Mortality"	• Low average frequency of reporting (dependent on household surveys) • Captures only one aspect of malnourishment • Medium sensitivity to policy change (lag time)
3. Under-5 child mortality	• Directly linked to MDG 4 ("Reduce Child Mortality") and is the same as MDG indicator 13 • Reflects socioeconomic conditions of populations • Availability of modeled and comparable data (WHO/UNICEF).	• Infrequent availability of measured data • Uncertain level of data accuracy and reliability due to estimation and potential errors
4. Proportion of 1-year-old children immunized against measles	• Linked to MDG 4 ("Reduce Child Mortality") and is the same as MDG indicator 15 • High sensitivity to policy changes • High data availability and high average frequency of measurement (1-2 years)	• Output indicator, not outcome • Medium relevance: Link to MDG 4 ("Reduce Child Mortality") is only partial since it the indicator focuses on only one cause of child mortality (focus is too narrow) • In many developing countries, lack of precise information on size of the cohort of children under one year of age makes immunization coverage difficult to estimate
5. HIV prevalence rate of women aged 15-24	• Linked to MDG 6 ("Combat HIV/AIDS, Malaria and other diseases") and is the same as MDG indicator 18 • Estimates available from UNAIDS for most IDA countries and coverage is increasing • In future, quality is likely to increase since 18 DHS surveys will include blood testing.	• In most countries, serosurveillance sites have not been selected to provide representative samples of the country. Logistical, feasibility and cost issues guide the selection of these sites. Also, in many countries, the sites included in the surveillance system have changed over time, making interpretation of trends more difficult • Because of differences in methodology, comparable data are not available over time for this indicator. On the other hand, a new series for estimated prevalence of HIV among adults (15-49 years) for 2001 and 2003 published by UNAIDS in early July 2004, will provide comparable a series over time

Table D4: Summary of Strengths and Weaknesses of Possible Outcome Indicators

Indicator	Strengths[a]	Weaknesses
6. Proportion of births attended by skilled health personnel	• Linked to MDG 5 ("Improve Maternal Health") and is the same as MDG indicator 17 • The best proxy indicator for maternal health care	• Output indicator, not outcome • Does not capture quality of service • Low average frequency of reporting (dependent on household surveys) • Medium sensitivity to policy change
7. Ratio of girls to boys in primary and secondary education	• Directly linked to MDG 3 ("Promote Gender equality and empower women") and is the same as MDG indicator 9 • Average frequency of reporting about 2 years	• Does not allow a determination of whether improvements in the ratio reflect increases in girls' school attendance (desirable) or decreases in boys' attendance (undesirable)
8. Primary school completion rate	• Directly linked to MDG 2 ("Achieve universal primary education") and is the same as MDG indicator 7b • Most of the PRSPs monitor this indicator • Although most countries do not calculate Primary Completion Rate, the Bank is collaborating with UNESCO (UIS) to use a proxy indicator to produce annual updates	• Primary completion rates based on primary enrollment have an upward bias, since they do not capture drop-out during the final grade • Age-specific population estimates are needed for this calculation, but they are less reliable than overall population estimates
9. Proportion of population with sustainable access to an improved water source	• Directly linked to MDG 7 ("Ensure environmental sustainability") and is the same as MDG indicator 30 • More than 80 percent of the PRSPs are using the indicator for monitoring purposes • Data collected from administrative and household surveys every 3-5 years; 94 percent of IDA countries expected to report in 2003-2005	• Access and volume of drinking water from and improved water source are difficult to measure so "safe" drinking water may be used as a proxy
10. Fixed lines and mobile telephone per 1,000 inhabitants	• This indicator is a valuable proxy for measuring sector development, and progress of access to communication technologies • It is sensitive to policy reform and therefore a useful measurement of sector policy development • It is an MDG indicator (MDG indicator 47) measuring progress toward Goal 8 as well as improving efficiency of delivering progress towards the other MDG goals • Data are collected, cleaned and published annually through the regular work program of the International Telecommunications Union, and are readily available in time series format for most IDA countries	• This composite indicator may double-count people in the population who have access to both fixed and mobile phones which could over-estimate the telecom access in a country. • This indicator measures access and usage. It does not measure quality of service or the volume of traffic.

Table D4: Summary of Strengths and Weaknesses of Possible Outcome Indicators

Indicator	Strengths [a]	Weaknesses
11/12. Time and formal cost required for business start-up	• Directly linked to policy. This indicator can be managed by policy action • Data are ready 3 months after the time of measurement. Progress can be tracked in a timely manner. Unlike many other measures, targets can be achieved by policy action during the measurement period • Annual updates, 55 countries, transparent methodology developed with academics and implemented by local experts • The need to pay fees for business start-up is an important cause of informal sector activity, corruption, and productivity—high costs of entry discourages formal private sector development	• Represents only one part of the overall investment climate • Less than one-fifth of the PRSPs are monitoring the subject
13. Public financial management	• A critical proxy for change in governance quality and effectiveness, which is crucial for the achievement of MDGs. • The necessary surveys are undertaken for other purposes, so the additional costs are minimal.	• The indicator covered only 24 IDA countries in 2002, rising to 30 countries in 2004 • The assessment involves expert judgments (currently by Bank and Fund staff) based on explicit and transparent criteria
14. Agricultural value added	• Accounts for 24 percent of GDP in IDA countries and high percentage of employment in rural areas • Estimates of value added from national accounts data compiled annually for most countries	• Not measured on per capita basis; progress or decline difficult to interpret vis a vis economic development • Household own production may not be included in some countries' estimates • Agricultural production surveys not collected on a regular basis in some countries; hence direct evidence weak
15. GDP per capita	• Traditional overall measure of economic progress • Estimates of GDP from national accounts compiled annually for most countries • All the PRSPs monitor the subject	• Does not capture distributional aspects of income • Informal economic activities may be large in some countries, but often not captured in official national accounts • Agricultural value-added is a large share of GDP in many countries; if poorly estimated, GDP estimates may be weak • Not very sensitive to policy changes due to exogenous factors' influence

Table D4: Summary of Strengths and Weaknesses of Possible Outcome Indicators

Indicator	Strengths [a]	Weaknesses
16. Access of rural population to an all-season road	• Reducing isolation is established as very important for pro-poor growth and is given a high priority by IDA countries • Access to transport is related to access to health and education services, employment opportunities, and market access • Basing measurement on national household survey results ensures that this indicator is known to be representative and replicable to a high standard • The required questions are already established in many national household surveys • There are measures of this indicator for an increasing number of non-IDA countries which provide benchmarks	• This is a new indicator so historical time-series values are not available (however, there are survey results in the pipeline which will soon provide a second value for several countries). • Updating the indicator depends on the frequency with which the relevant household surveys are repeated. • Survey questions on road access differ across country surveys • Special data compilation by World Bank staff is needed
17. Household electrification rate	• Household electricity consumption has been shown to have multiple development benefits since it is linked to improvements in health, education, and Information Communication and Technology (ICT) access • The indicator is sensitive to sector policy reform and therefore a good measure of sector policy development. • Data for IDA countries are increasingly available as multi-topic household surveys now have standard questions on electricity use. • Additional costs for IDA countries and the World Bank are negligible.	• The indicator does not measure quality of service or the amount of household consumption • Country coverage is only about 60 percent from available household surveys (see Annex C for more information) • Special data compilation by World Bank staff is needed
18. Proportion of the population using solid fuels	• The indicator is the MDG indicator 29 and is related to both the environment and the health status of those directly exposed (Use of solid fuels in household when used in inefficient and poorly ventilated stoves and hearths results in exposure to smoke that gives rise to adverse health impacts. Use of solid fuels may local be a contributing factor in local deforestation , soil erosion and soil nutrient removal). • Data for IDA countries are increasingly available as multi-topic household surveys now have standard questions on solid fuels use.	• Data are now available for a limited number (28) of countries representing about 35 percent from IDA countries (see Annex C for more information) • Special data compilation by World Bank staff is needed

Note

[a] "MDG" refers to one of the eight Millennium Development Goals, while "MDG indicator" refers to one of the 48 indicators used to measure progress toward the eight Millennium Development Goals.

15.   This annex describes the sources and availability of the 18 indicators proposed in this paper, and options for setting aggregate performance targets for IDA countries. Ten of the indicators covering poverty, education, health, water and infrastructure development—have been adopted from the Millennium Development Goals (MDGs). These or similar indicators appear in many Poverty Reduction Strategy Papers (PRSPs). In addition, total GDP per capita and agricultural value-added

have been included as indicators of economic performance and, a composite indicator for public financial management, two indicators of private sector development (the time and cost of starting a business), and indicators measuring access of rural people to all-season roads and modern energy have been added. The private sector development indicators are already part of the IDA13 interim monitoring set along with primary school completion rate and the proportion of 1-year old children immunized against measles. Table D1 lists the proposed indicators, and identifies these as correspondence to the MDG indicators, with the United States' Millennium Challenge Account (MCA) and the United Kingdom's Department for International Development Public Service Agreement (PSA).

MONITORING IDA'S CONTRIBUTION TO COUNTRY OUTCOMES

CAS-Level Indicators

Rationale

Bank teams have always striven for results in Country Assistance Strategies (CASs), but preparing a results-based CAS (RBCAS) helps them select the most relevant and effective forms of Bank support. While traditional CASs are aligned to national goals, the results-based CAS goes a step further by asking clients and country teams to be more explicit about the outcomes that Bank-supported activities will influence directly. Developing a RBCAS forces a clearer focus on outcomes, increases the synergy between the ongoing and planned portfolio, and provides an outcomes-based management system for implementation. Although the RBCAS does not try to declare attribution, it does bring the definition of intermediate outcomes closer to those that are influenced by the Bank's products and services. It recognizes the role of other donors in support of outcomes and identifies major risks that might impede achievement of the CAS and longer term goals (such as the Millennium Development Goals).

Definition of Results-based CAS

The results-based CAS is useful for design, implementation, and evaluation, and provides a monitoring and evaluation framework to enable outcome-focused management to steer toward results during the CAS period and evaluate success. As more results-based CASs are developed, there is a growing pool of experiences from which to draw lessons, in terms of designing more relevant strategies, identifying intermediate outcomes, and engaging the country team and Government around the CAS. The process is fostering increased multi-sector collaboration among the country team and more outcome-oriented discussions with government. It is also showing possible difficulties in balancing its use as a management tool and as an evaluation framework. Although the RBCAS is designed to serve a number of functions, the way in which the Bank uses it to empower country directors and the teams to manage toward outcomes is critical to its success.

Monitoring and Evaluation Architecture for the Tracking of CAS Results
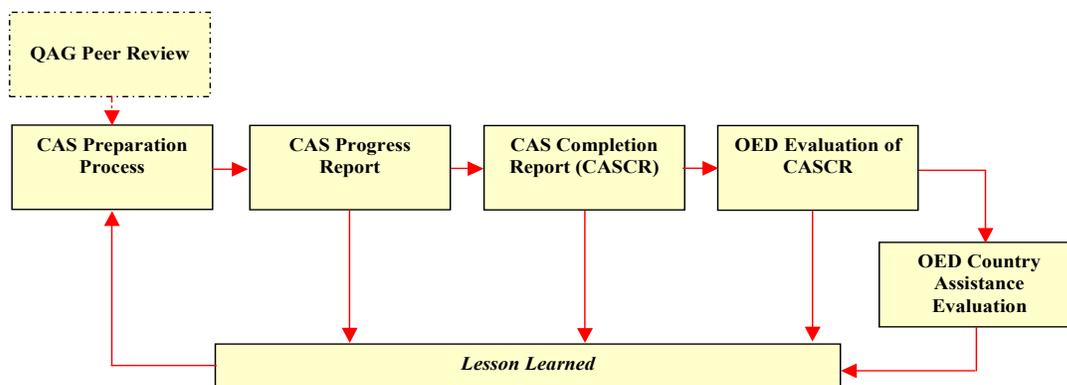
Bank Performance at the CAS Level: Completed RB CASs and Evaluation of CAS Implementation

With a three- to four-year CAS cycle, the number of CASs from IDA-eligible countries reaching completion in any given year is likely to be between 15 and 20. This is sufficient to establish a time series of CAS outcome ratings, but is too small a population for any further annual disaggregation (e.g., by Region). On the basis of such a time series, IDA could report, for example, that 70 percent of CASs at completion had a satisfactory or better rating. This type of ex post indicator is, by definition, lagged but provides an input into the development of future CASs or the basis of possible reorientation of ongoing CASs. With the gradual rollout of the results-based CAS[1], it will take several years of CAS Completion Reports before the reliability of the ratings is sufficient for IDA targeting. Teams started preparing results-based CASs for IDA countries in FY03 and FY04, along with CASCRs.

Adoption of Results-based CAS
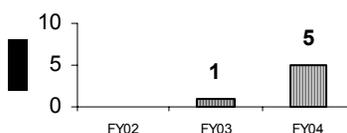
Source: World Bank.

[1] For more details, see *The Results Focus in CASs: A Stocktaking of the Pilot Phase of Results-Based Country Assistance Strategies*, OPCS, Forthcoming in FY05.

Project Level Indicators

Rationale

Two indicators will monitor IDA's contribution to results at the project level. First, quality at entry ratings provide timely and impartial feedback to management and project teams. Since the mid-l990s, the Quality Assurance Group (QAG) has undertaken assessments of project quality at entry. Since good project design is correlated with satisfactory project outcomes quality at entry is an important leading indicator for results on the ground. Second, the Operations Evaluation Department (OED) validates project outcome ratings when reviewing all Implementation Completion Reports (ICRs), which cover the universe of exiting IDA projects and stretches back for many years. These data, which are based on independent ex-post evaluations, are the most reliable measure of results available across the IDA portfolio.

Definition of Quality at Entry

The Quality at Entry Assessment (QEA) is carried out for a sample of the new lending operations in each calendar year, chosen at random, soon after approval. The purpose is to serve as an input into monitoring of the Strategic Compact; provide real-time feedback to staff and managers to improve developmental impact; and, identify systemic issues as a basis for improving quality of future operations. The assessment is of the overall quality of the operation and of quality along eight dimensions: project concept, objectives and approach; technical and economic analyses; environmental aspects; social and stakeholder aspects; financial management aspects; institutional aspects; readiness for implementation; and analysis of risks and sustainability**.**

Definition of Project Outcome Rating

OED evaluates project outcomes by considering three factors: relevance of the intervention's objectives in relation to country needs and institutional priorities (i.e. whether the operation's objectives are consistent with the country's current development priorities and with current Bank country and sectoral assistance strategies and corporate goals); efficacy, the extent to which the developmental objectives have been (or are expected to be) achieved; and efficiency, the extent to which the objectives have been (or are expected to be) achieved without using more resources than necessary (i.e. relation of results to costs).

The large amount of information contained in the assessments of the three criteria supporting the outcome assessment (relevance, efficacy, and efficiency) is reflected in the differentiations of the criteria. The outcome criterion is assessed on a 6-point scale -- highly satisfactory, satisfactory, moderately satisfactory, moderately unsatisfactory, unsatisfactory, highly unsatisfactory. Satisfactory implies that the projects makes effective use of resources (10 percent rate of return or better where it can be estimated) and involves clear positive signals with respect to all three criteria of the iron triangle of development outcomes, i.e., connotes a rating of at least "substantial" in all three supporting criteria. The outcome assessment answers the questions: At the time of evaluation, what is the best assessment of whether the project are worthwhile or not? What are the most likely development results in terms of the major relevant objectives and the associated costs and benefits of the project? Does the project investment yield an acceptable economic rate of return (ERR): that is, more than 10 percent?

Bank Performance at the Project Level: Quality at Entry and Project Outcomes between 1997 and 2003

The monitoring of IDA's contribution to country results at the project level will be based on analyzing recent project QAG ratings of Quality at Entry and OED ratings on Project Outcome. QAG examines quality at entry through peer assessments of a random sample of IDA and IBRD projects. Because of small sample size, any subset (by Network or Region) would contain too few data points to be statistically valid. In addition, a relatively small sample introduces greater yearly variation that must be addressed in using this indicator to establish IDA targets. The Bank has an established target of 90 percent satisfactory quality-at-entry ratings for the combined IBRD/IDA portfolio, which should be taken into account in considering targets for IDA.

The database on project outcomes covers the entire population of exiting IDA projects. This population is too small to ensure statistical validity of subcategories (e.g., Networks or Regions) on a yearly basis. As outcome ratings, they also have a built-in lag (the average age of projects exiting the portfolio is 5-6 years). However, these ratings and the lessons behind them are highly relevant to the preparation of new projects and to midcourse corrections of ongoing projects. Setting targets for project outcomes must take into account the lagged nature of the response.
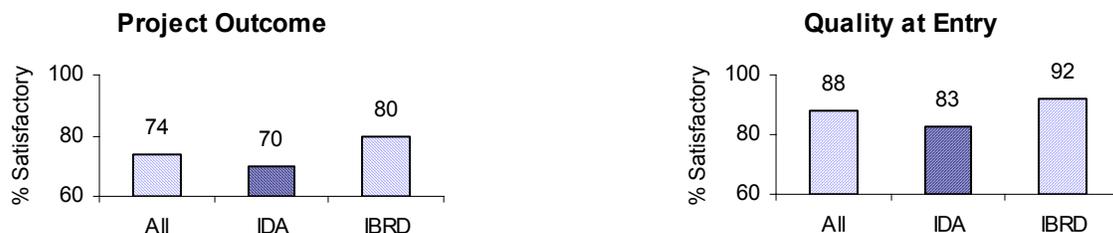
Source: QAG and OED/Business Warehouse.

IDA COMMITMENTS BY MAJOR SECTORS AND THEMES, FY1999-2003

Table F1. IDA Commitments By Major Sector [A/] (SDR Million)

Sectors	FY97	FY98 [b/]	FY99 [c/]	FY00	FY01 [d/]	FY02	FY03
Agriculture, Fishing and Forestry	375	805	628	213	318	497	492
Education	224	895	460	335	447	502	766
Energy and Mining	247	599	202	226	360	1009	391
Finance	189	209	231	153	439	639	261
Health and Social Services	620	919	775	534	1,012	818	1,040
Industry and Trade	255	184	376	128	245	651	253
Information and Communication	10	81	28	16	34	44	50
Law and Public Administration	659	924	1,232	1,012	1,287	1281	1,029
Transportation	439	764	841	417	573	688	777
Water, Sanitation and Flood Protection	243	182	333	196	536	293	421
Total	**3,260**	**5,562**	**5,106**	**3,229**	**5,251**	**6,421**	**5,480**

a/ Excludes IDA Guarantees.
b/ Includes US$75 million in development grants to Uganda under the HIPC Debt Initiative.
c/ Includes US$150 million in development grants to Mozambique under the HIPC Debt Initiative.
d/ Excludes IDA HIPC Debt Service Grants for Honduras (US$37million) and Cameroon (US$64 million).

Table F2. IDA Commitments by Major Theme [a/] (SDR million)

Themes	FY97	FY98 [b/]	FY99 [c/]	FY00	FY01 [d/]	FY02	FY03
Economic Management	135	223	340	58	139	310	156
Environment and Natural Resources Management	346	506	368	191	236	385	363
Financial and Private Sector Development	538	987	764	542	1030	1,245	665
Human Development	373	1,014	516	434	492	724	1,127
Public Sector Governance	283	543	455	572	620	1,235	677
Rule of Law	41	41	62	86	99	101	51
Rural Development	577	822	752	477	645	856	696
Social Development, Gender and Inclusion	452	580	458	426	800	705	529
Social Protection and Risk Management	202	266	524	211	551	336	709
Trade and Integration	96	119	220	52	277	100	99
Urban Development	216	462	647	181	363	425	408
Total	**3,260**	**5,562**	**5,106**	**3,229**	**5,251**	**6421**	**5,480**

a/ Excludes IDA Guarantees.
b/ Includes US$75 million in development grants to Uganda under the HIPC Debt Initiative.
c/ Includes US$150 million in development grants to Mozambique under the HIPC Debt Initiative.
d/ Excludes IDA HIPC Debt Service Grants for Honduras (US$37million) and Cameroon (US$64 million).

TECHNICAL NOTE FOR IDA13 RESULTS MEASUREMENT SYSTEM
UPDATE ON PRIMARY COMPLETION RATE AND MEASLES IMMUNIZATION COVERAGE[1]

A. Summary Findings

1.   The IDA-eligible countries[2] are making significant progress on both indicators according to the most recent data as of April 1, 2004, both as a whole and individually:

- 65 percent of children under age one in the IDA-eligible countries have received the measles immunization vaccine, up from 56 percent in 1999 and greatly surpassing the target of 60 percent. Among seventy one countries[3] studied, fifty have reached an immunization rate equal to or higher than 60 percent in 2002, up by one from 1999; twenty-nine have reached 80 percent or higher in 2002, up by five from 1999.

- The overall primary completion rate[4] for the IDA-eligible countries has increased to 73 percent in 2002, up from 70 percent in 2000. Among countries with a 1990 value, twenty-six countries have reached a 70 percent or higher primary completion rate, up from fifteen in 1990. Meanwhile, forty-three among fifty-five IDA-eligible countries, who have sufficient data and did not have universal primary education in 1990, have seen positive growth from their 1990 level.

2.   In short, the Spring 2004 targets set for these two indicators have been met. The following two sections will discuss various data and methodological issues as well as their impact on the above results in detail for the two indicators. The appendix provides values of the two indicators by country and by year as well as the weighting variables used in the aggregation.

B. Measles Immunization Coverage Rate

3.   The proportion of 1 year-old children immunized against measles is the percentage of children aged 12-23 months who have received at least one dose of measles vaccine before the age of 12 months. This indicator provides a measure of the coverage and the quality of the child health care system in the country. Among the vaccine-preventable diseases of childhood, measles is the leading cause of child mortality. Measles immunization is therefore an essential component for reducing under-five mortality.

4.   This indicator is estimated annually by WHO/UNICEF for almost all countries. The update simply involves obtaining the most recent round of estimates—2002 at the present time.[5] However, WHO/UNICEF revises the previous observations when new observations estimated

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[1]   From Annex IV of *IDA13 Results Measurement System: Spring 2004 Update* (SecM2004-0244; IDA/SecM2004-0327), May 18, 2004.

[2]   As of April 1, 2004, there are 81 countries eligible for IDA. Timor-Leste was excluded from the original set of countries because it only became independent in 2002.

[3]   The 71 countries studied here are the same as those included in the original baseline set for which the targets were established and estimates calculated.

[4]   The overall weighted completion rate is based on 70 countries, representing 97 percent of total population in 80 IDA-eligible countries. They are not the exact same set as those included in the previous measurement. For details see the section on the primary completion rate.

[5]   The currently available data for this indicator only lags two years, one year less than when the baseline was estimated in 2002.

from survey or administrative data become available.[6] Revisions are found for a dozen countries[7] in the most recent update. Among the seventy-one countries included in the previous baseline and progress estimate, which represent 96 percent of children under age one in 2002, 1999 immunization rates were revised for 3 countries; 2000 rates for 9 countries; and 2001 rates for 11 countries. While most changes are minor, some can be significant. For example, the immunization rate of Indonesia was estimated to be 56 percent and 59 percent for 2000 and 2001 respectively in the spring 2003, but the most recent estimates are 71 percent and 76 percent for those two years. The immunization rates of Mozambique for 2000 and 2001 have been significantly revised downward, from over 90 percent to under 60 percent.

5.   The aggregate results are given in Table G1. The first section, "Preliminary Estimates and Target", lists the targets that were adopted in the spring of 2002 and the preliminary estimates that were reported in spring 2003. The second section, "Comparable Spring 2004 Results", gives the updated results for 1999-2001 and the latest estimates for 2002. These results are strictly comparable to the previous results because only the countries[8] included in the "Preliminary Estimates and Target" are included here. The third section, "Full Spring 2004 Results", displays the results when all IDA countries for which data are now available are included.

Table G1: Measles Immunization Coverage Rate: Progress in 1999-2002

	Preliminary Estimates and Target[1]				Comparable Spring 2004 Results[2]				Full Spring 2004 Results[3]			
	1999[a]	2000[b]	2001[b]	target[a]	1999	2000	2001	2002	1999	2000	2001	2002
# of countries with observations	71	71	71		71				79			
# of countries with 80% coverage	27	28	28	29	24	26	27	29	28	31	29	31
# of countries included in the aggregation	70	70	70		70				79			
Overall weighted coverage rate %	56[4]	59.3	60.1	60	55.6	60.0	60.7	65.2	55.7	59.8	60.5	64.9

Notes:

1. Preliminary estimates and target are reported in: for (a) *Performance Management in IDA* (April 2002); for (b) *IDA Results Measurement System: Progress and Proposals, Technical Annexes* (April 2003).

2. Comparable Spring 2004 Result is based on the same set of IDA eligible countries using updated data.

3. Full Spring 2004 Result is based on all qualified IDA countries using updated data.

4. During the initial development of the IDA13 results measurement system, only IDA countries in the top three CPIA performance quintiles were included. Following the advice of Deputies, all IDA eligible countries with data were included later. As such, the 1999 baseline was revised from 58% to 56%.

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[6]   For more detail on the methodology see *WHO vaccine-preventable diseases: monitoring system, 2003 global summary*.
[7]   Three observations (Central African Republic, Mozambique Pakistan) are in 1999; nine observations are in 2000 (Angola, Central African Republic, Eritrea, Indonesia, Kenya, Lesotho, Malawi, Mozambique, Pakistan); eleven observations are in 2001 (Central African Republic, Congo Dem. Rep., Eritrea, Indonesia, Kenya, Lesotho, Mozambique, Pakistan, Rwanda, Sao Tome and Principe, Sierra Leone).
[8]   Macedonia is no longer an IDA country, but is included in the Comparable Spring 2004 Results because it was included in the previous 2002 and 2003 estimates.

6.   The updated results for 1999-2001 in the "Comparable Spring 2004 Results" section demonstrates the impact of data revisions on the overall results. Despite these changes, the targets set for 2002[9] are met in both cases. The overall immunization rate is 65 percent, well above the target of 60 percent; twenty-nine countries have reached an immunization rate of 80 percent or higher by 2002.

7.   The extraordinary progress on the measles immunization rate is largely due to significant improvement in some countries such as India, Ethiopia and Congo Democratic Republic, which reflects the donors' renewed effort in immunization campaigns. WHO/UNICEF estimates that through concerted efforts in 2000–2002, 220 million children were vaccinated against measles in 21 priority countries, including 9 undergoing emergencies, preventing an estimated 255,000 measles deaths.

8.   The increase in the number of countries reaching a measles immunization rate of 80 percent or higher is certainly informative, but it does not tell us whether or not the poor performing countries are making progress if not reaching the threshold level yet. Figure 1 shows that progress has been made in both the low immunization rate countries as well as the high immunization rate countries. The seventy one countries are grouped into four classes depending on whether their immunization rates are less than 40 percent, or between 40 percent and 60 percent, or between 60 percent and 80 percent, or 80 percent or higher. Four countries (Chad, Congo Democratic Republic, Ethiopia and Niger) have moved out of the lowest class since 1999, and five countries (Cape Verde, Ghana, Sao Tome and Principe, Tajikistan, Tanzania) have moved into the higher class during the same period.

Figure 1: Progress at country level

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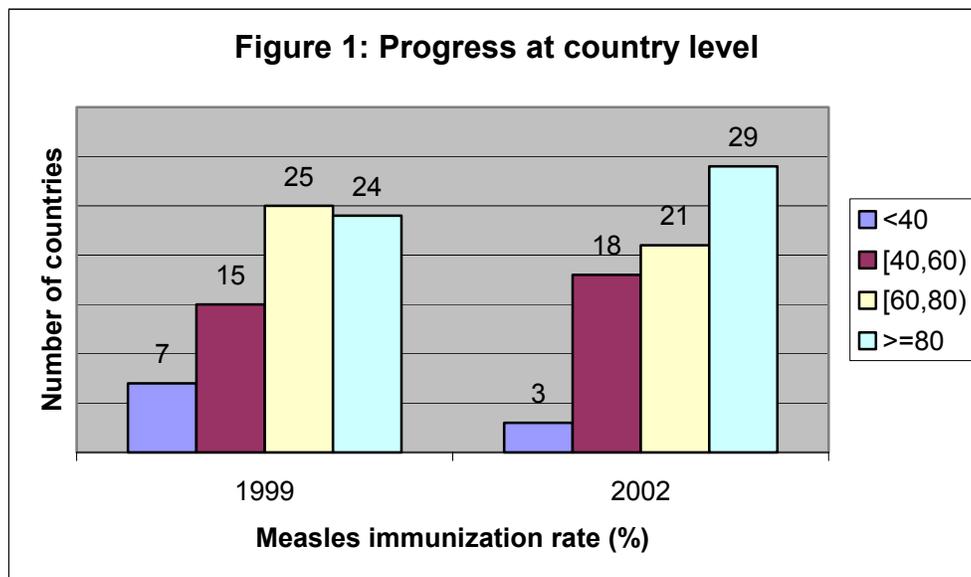
[9]   The targets were originally set for a two-year period. The progress in this three-year period is clearly strong enough to meet the targets in both 1999-2001 or 2000-2002 periods.

9.   The "Full Spring 2004 Result" which includes seventy-nine IDA countries[10] confirms the significant progress observed in the seventy-one countries. The additional countries were not available in the previous WHO/UNICEF database, and their measles immunization rates are likely to be revised in the future. It is clear that the impact of the additional countries on the overall coverage rate is negligible. The overall immunization rate is 64.9 percent, and thirty-one countries have reached an immunization rate of 80 percent or higher.

C. Primary Completion Rate

10.   Primary completion rate is the ratio of the total number of students successfully completing (or graduating from) the last year of primary school in a given year to the total number of children of official graduation age in the population. This indicator monitors both education coverage and student progression and is intended to measure human capital formation and school system quality and efficiency. It directly addresses one of eight Millennium Development Goals—achieving universal primary education.

11.   This indicator is relatively new, so a regular and systematic data collection mechanism is not yet in place. The previous data compilation was undertaken by the education department of the Human Development Network (HDN) in 2002-03. The effort produced three sets of observations, one around 1990, another around 1995 and another for the most recent year (1999/2000 in most cases). The data source is mostly the grade-specific enrollment and repeater information collected and published by the UNESCO Institute for Statistics (UIS), supplemented by completion or enrollment data collected directly from national education systems by World Bank task teams.

12.   There are two major data issues. First, the database has many gaps, particularly for small countries and earlier years. For the 80 IDA-eligible countries, the maximum number of countries with an observation in any single year before 2000 is 39 (1990). Among the 69 countries included in the previous baseline estimates, only 29 countries have an observation in 2000 and only 6 have an observation in 2001. Secondly, different methods of computation have been used in the derivation of the indicator. As a result, the comparability of this indicator across countries or over time is compromised[11].

13.   The true numerator should be the number of students who actually complete the last grade of primary school, but this information is often not available. In the majority of observations in the current database, a proxy primary completion rate[12] is calculated as the ratio of the total number of students in the final year of primary school minus the number of students who repeat the last grade in a typical year, to the total number of the children of official

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[10]   All IDA eligible countries but Liberia are included. Liberia has no data in 1999. Macedonia is excluded, while nine additional countries (Afghanistan, Kiribati, Myanmar, Papua New Guinea, Samoa, Solomon Islands, Somalia, Tonga, Vanuatu) are included.

[11]   Another two factors complicating the international comparability are different durations of primary education cycles and different systems of graduation (exams, diplomas, automatic promotion) across countries. The primary completion rates in 2000-02 are estimated using the same cycles as for the 1990 estimates in all but a few countries. The exceptions are mostly due to change of national primary education cycle, and the 1990 values cannot be re-estimated.

[12]   The UIS refers to this as the gross intake rate at the last grade of primary.

graduation age in the population.[13] Due to omission of students who drop out during the year, this proxy completion rate may overstate the true primary completion rate. In some cases when the number of repeaters was not available, the enrollment in the last grade of the primary school was used as the numerator to calculate the completion rate. In these cases, the calculated completion rate further overstates the true value.

14.   Since the Fall of 2003, the Development Economics Data Group (DECDG) and the education department of HDN have collaborated in collecting and standardizing the data of the three most recent years (2000-02) required for calculation of primary completion rates. To improve comparability across countries and over time, it was decided to use only the proxy method even though the number of primary school completers or graduates is available for some countries. Two factors were considered in the decision: measurability and consistency with previous observations. The numerator information required by the proxy method is routinely collected by national education ministries and reported to UIS. The cost involved in producing the proxy primary completion rate is reasonably low. Further, the proxy method was used in the majority of the available observations around 1990. For example, nearly three quarters of the available observations around 1990 for the IDA countries were estimated using the proxy method, with the rest based on enrollment only. Therefore, the upward bias is less a concern than the actual completion rate in the measurement of progress for 2000 and forward against the 1990 level. As a result of this recent data collection effort, there is a great improvement in the data availability. Currently there are 57 and 59 new observations for 2000 and 2001, respectively, and 23 observations in 2002.

15.   Where new observations for 2000 and 2001 were available, they were used to replace all previous observations. For eleven countries[14], there were no new observations to replace the previous observations of 2000 and 2001. Since our main objective is to measure the progress, the consistency over time is considered to be more important than the comparability across countries. In order to keep as many countries as possible, the completion rates of these eleven countries were checked to make sure the computation method has been consistent for each over time. When it is possible, either the 2000 and 2001 observations or the earlier observations were re-estimated so that the same computation method was used for all years. In all eleven cases, the computation methods can be reconciled. So all previous 2000 and 2001 observations were kept, with some being revised[15].

16.   The numerator in the primary completion rate counts all children completing the final grade of primary school, including those who are beyond the official graduation age of primary school due to either late school entry or repetition in any grades (Bruns et al. 2003). Therefore, the number of children who are graduating successfully is sometimes larger than the number of children at the official graduation age. Indeed, out of sixty-nine countries included in the preliminary baseline result estimated in 2002, five have a primary completion rate over 100

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[13]   For the three most recent years, the age-specific population projections maintained by the World Bank Health, Nutrition, and Population (HNP) department are used for the denominator. The target population age is calculated as the starting age plus the official primary cycle minus one. For example, if children start to go to primary school at six and the primary education consists of six grades, then the target population is the children at age eleven. The current World Bank population projections are consistent across countries and over time, so they are the best available age-specific estimates.

[14]   Angola, Central African Republic, Congo Dem. Rep, Guinea, Guinea-Bissau, Nigeria, Pakistan, Serbia and Montenegro, Sierra Leone, St. Lucia, Sudan.

[15]   DECDG is planning to re-estimate all previous estimates consistently using the proxy computation method in collaboration with the education department of HDN and UIS.

percent in 1990. The existence of over-100-percent primary completion rates complicates our measurement of progress. It is not necessarily negative when a country's primary completion rate declines from a baseline level over 100 percent because it may mean less repetition or more on-time entry. So it was decided to exclude the countries with 1990 completion rates over 100 percent in counting the number of countries with positive growth relative to 1990 value for the final result.

17.   One methodological issue is the imputation of missing figures. Because there are only a small number of countries with full observations during the measurement period, the resulting aggregate value using those countries may not be representative of the larger set of countries. Therefore, imputation or filling of the data gaps is necessary so that the coverage is sufficient for the aggregate value to be representative.

18.   There are many established methods for imputing missing data (Tim Holt, 2003). The most-recent-year approach (MRY) adopted in the spring 2003 report has been used widely. The MRY method essentially assumes that the indicator value observed at a date closest to the date of the missing one can best approximate the missing figure. It works reasonably well to estimate the change if the two points being compared are reasonably far apart in time so that each country can have two observations. However, it is not the most appropriate method in measuring the short-term progress of an indicator with infrequent observations, such as the primary completion rate. For example, there were only six actual observations for 2001 in the spring of 2003. If data for 2000 are used to fill in the missing values for 2001, then the observations in 2001 will be virtually the same as those of 2000. As a result, there will be little change between the two years.

19.   Because this method fails to take properly into account the distance between the year of missing data and the year of most recent value used to replace the missing data, the measured change can be severely biased. For example, we would like to measure the change between 2000 and 2001. If one country has two observations, one for 1995 and another for 2001, then the 1995 observation would replace the missing data for 2000 by the MRY method. If from these two observations it is clear that this country is making strong progress, then the MRY method will credit all the change to 2001 and greatly overestimate the annual progress because the improvement actually occurs along the interval between 2001 and 1995, the year of the most recent value.

20.   A natural alternative is to take the most recent trend of the indicator value into account in imputing the missing figures. The essential assumption of this method is that the trend of an indicator remains the same unless a new observation indicates otherwise. If an indicator moves slowly and smoothly, then we expect to estimate the data gaps using the previously observed trend relatively well. This method is capable of dealing with both situations mentioned above.[16] However, as for the MRY method, imputation errors are introduced into the aggregate value of the indicator, and the errors cannot be quantified.

21.   Two restrictions are imposed to minimize the potential imputation error. The first is that countries with insufficient data points are excluded from the aggregation. Only IDA countries

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[16]   Other imputation methods are mostly regression based. However, the primary completion rate usually has only two or three observations over time, so the time series approach does not fit here. The cross- sectional approach using covariates, such as gross enrollment rates and education expenditure, is not established yet.

with either at least one observation in 1988-99 and at least one in 2000-02, or at least two observations in 2000-02 are included. This procedure filters out countries with only one observation or multiple observations but none for the measurement period. The second restriction is to cap the imputed values at the maximum observation value for each country or at 100 percent, in accordance to whichever is larger. This procedure essentially eliminates the possibility that the imputed values are out of a reasonable range. This step is important given that a large number of extrapolations are needed for 2002.

Table G2: Primary Completion Rate: Progress in 2000-02

	Preliminary Estimates and Target[1]				*Comparable Spring 2004 Result[2]*				*New Spring 2004 Result[3]*			
	2000[a]	2000[b]	2001[b]	target[a]	1999	2000	2001	2002	1999	2000	2001	2002
# of countries included	69	68	69			69				70		
Overall weighted primary completion rate (%)	68	67.5	68.7	69	65.9	69.1	70.1	70.3	68.8	70.0	71.6	72.7
# of countries with 1990 value		63				63				55		
# of countries with positive growth relative to 1990	32	35	35	38	32	43	46	45	38	40	43	43

Note:

1. Preliminary estimates and target are reported in: for (a) *Performance Management in IDA* (April 2002); for (b) *IDA Results Measurement System: Progress and Proposals, Technical Annexes* (April 2003).

2. Comparable Spring 2004 Result is derived with the previous method on the same set of IDA eligible countries using expanded dataset as of April 2004.

3. New Spring 2004 Result is derived with an improved imputation method on all qualified IDA countries using the expanded dataset.

22.   Table G2 gives the two sets of results along with the results reported in the spring 2003 report. The first section "Preliminary Estimates and Target" lists the results that were estimated in the spring of 2002 and 2003 as well as the target adopted. The next section "Comparable Spring 2004 Results" gives the corresponding results on the same set of IDA countries as in the "Spring 2003 Results" if the same MRY method[17] is applied on the currently available data as of April 1, 2004. The overall completion rates estimated for 2000 and 2001 in the spring 2003 report, 67.5 percent and 68.7 percent, are underestimated considerably compared to the new estimates of 69.1 percent and 70.1 percent. This is not surprising because by replacing missing

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[17]   It seems that there are three rules for the MRY method applied for the previous study:
   1.   Only countries with at least one observation between 1988 and 2001 are included.
   2.   If 2000 or 2001 values are missing, for countries with one observation, the observation is taken forward to approximate the missing figure, and the baseline value is set to be "N/A"; for countries with two or more observations, the observation prior to the missing figure is taken forward and the earliest observation is taken to be the baseline value.
   3.   The weighting variable (population of last grade of primary) is carried along with the most recent value.
   Following the recommendations of the CCSA report "Aggregation of National Data to Regional and Global Estimates", rule 3 is amended and a new rule is added:
   3.   The latest year weighting variable (population of last grade of primary) is used and remains constant for the period under measurement.
   4.   The aggregate values are based on the same sets of countries.

figures for the year under study with most recent values, the MRY method relies on an implicit assumption that there is no change between the year under study and the year with most recent value. Because in these two years there were a large number of values taken from previous years, some as early as 1993, and the majority of those most recent values are lower than the actual primary completion rates observed now, the overall rate is almost certainly lower than what it should be. Therefore, the overall rate of 2002 (70.3 percent) is likely to be underestimated as well since there are also a large number of substitutions for missing data for that year.

23.   The progress between 1999 and 2000 is overstated greatly. The 4-percentage points improvement clearly illustrates the potential bias of the MRY method when applied to the measurement of progress during a short period. Fifty-two among the sixty-nine countries included have no observations in 1999 and use most recent values from previous years, while only nine countries need to use most recent values in 2000. So all the progress made along the way between 2000 and the years of most recent values are now credited to a single year, which generates a strong upward bias in this case.

24.   The last section "New Spring 2004 Results" displays the results if the improved gap-filling method[18] is applied to the currently available data. Six countries on the previous list are excluded from the aggregation because the new method applies a stricter criterion in data requirement, and seven additional countries are included.[19] The impact from the change of countries is expected to be very small because the common sixty-three countries represent 97 percent of the graduation age population in the sixty-nine countries included in the previous estimates and 98 percent of graduation age population of the current result. The overall completion rates for 2000 and 2001 are higher than the MRY estimates for two reasons. The principal one is the downward bias caused by using earlier values when there are actually positive changes for a small number of countries with no observations for the two years. The secondary one is that different countries are included. The six countries included in the MRY aggregation but excluded in the current aggregation tend to have relatively lower completion rates, while the seven newly added countries tend to have relatively higher completion rates.

25.   The significant difference between this set of results and the previous ones is the progress made during the three years. While the MRY method suggests that there was good progress made in 2001 against the 2000 value, but little progress in the next year, the improved method suggests that there was equally impressive progress made in both years. Actually, the total of 2.7

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[18]   The improved method has five rules:
  1. Only IDA-eligible countries with either at least one observation in 1988-99 and at least one in 2000-02, or at least two observations in 2000-02 are included.
  2. For countries with data gaps in 2000-02, the missing value is imputed according to the most recent trend: for the missing value bounded by one observation on each side, the most recent trend is calculated using the two bounding observations; for the missing value bounded only at left side (i.e. only previous observations are available), the most recent trend is calculated using the nearest two observations;
  3. The trend is calculated using the exponential growth function--$\ln(X_t - X_s)/(t-s)$.
  4. The imputed values are bounded by the country's maximum observation value or 100, whichever is larger.
  5. A constant weight is used for aggregation for all years (Population of last grade of primary in 2002).
  The missing 1990 value is imputed using the same rules listed above (2-4) for countries with at least one observation during 1988-96.

[19]   Six countries included in the baseline estimate of 2002 are excluded due to insufficient data: Afghanistan, Angola, Haiti, Sierra Leone, Solomon Islands and Zimbabwe. Seven countries are added due to newly available data: Dominica, Maldives, Myanmar, Papua New Guinea, Samoa, Sao Tome and Principe, Tonga.

percentage point increase from the new baseline of 70 percent is very strong, enough to dwarf the targeted 1 percentage point increase from the original baseline of 68 percent. Table G3 clearly indicates the significant improvement for both 2001 and 2002.

Table G3: Progress in PCR by Matched Pairs of Countries

|	*Comparison 1*		*Comparison 2*		*Comparison 3*	
	2000	*2001*	*2001*	*2002*	*2000*	*2002*
# of countries used in comparison	53		22		22	
% of total graduation age population	40%		20%		19%	
Overall weighted primary completion rate %	69.0	71.0	69.5	70.1	68.0	70.4
# of countries with improving PCR	32		16		17	

Note: only countries with observations in both years of the comparison are included in the calculation.

26.   Table G3 compares the aggregate values for any two of the three years using only the countries with both observations available in both years. Because there is no imputation involved, the progress measured here reflects only the observed values. However, the aggregate values may not be representative of all IDA-eligible countries because of the small subset of countries included, especially in the comparisons of 2002 with two earlier years. There are fifty-three countries with both observations available in 2000 and 2001. The overall completion rate is 71 percent in 2001, up from 69 percent in 2000. The overall rate for the twenty-two IDA countries whose primary completion rates in both 2001 and 2002 are available is 70.1 percent, up from 69.5 percent in 2001. The results indicate that among a limited number of IDA countries for which we have observations for both years in comparison, there is an improvement in the overall completion rate and a positive growth in the majority of countries included in both years.

27.   With the expanded dataset, the 2002 target for the number of countries with positive growth rates in primary completion rate was actually achieved as of 1999. So the target of 38 needs to be adjusted properly to reflect the shifted baseline value and maintain the relative scale of change desired when setting the target in the spring of 2002. In the spring of 2002, it was expected that among those which did not achieve universal primary education in 1990, there should be six additional countries with positive growth relative to 1990 value in 2002 than in 2000. There were twenty six[20] countries whose most recent values for 2000 were lower than their 1990 level then, so the six additional countries two years later is equivalent to 23 percent of the remaining twenty six countries. According to the currently available data, the number of countries whose 2000 primary completion rates are lower than their 1990 level in 2000 is only

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[20]   Among the sixty-nine countries included in the original baseline estimate in the spring of 2002, five (Albania, Kyrgyz Republic, St. Lucia, St. Vincent and the Grenadines, and Sri Lanka) had baseline primary completion rate of 100 percent or more around 1990. Another six countries (Angola, Armenia, Bosnia and Herzegovina, Sierra Leone, Vietnam, Yemen) have no baseline observation around 1990. Out of the remaining fifty-eight countries, thirty-two had positive growth in 2000 relative to 1990 value according to the data available in the spring of 2002. So there were 26 who did not have positive growth then.

fifteen[21]. So proportionally the equivalent number of additional countries with positive growth in 2002 than in 2000 is 3 (23%*15). Therefore, this target should be judged being achieved as well.

Figure 2: Progress at country level
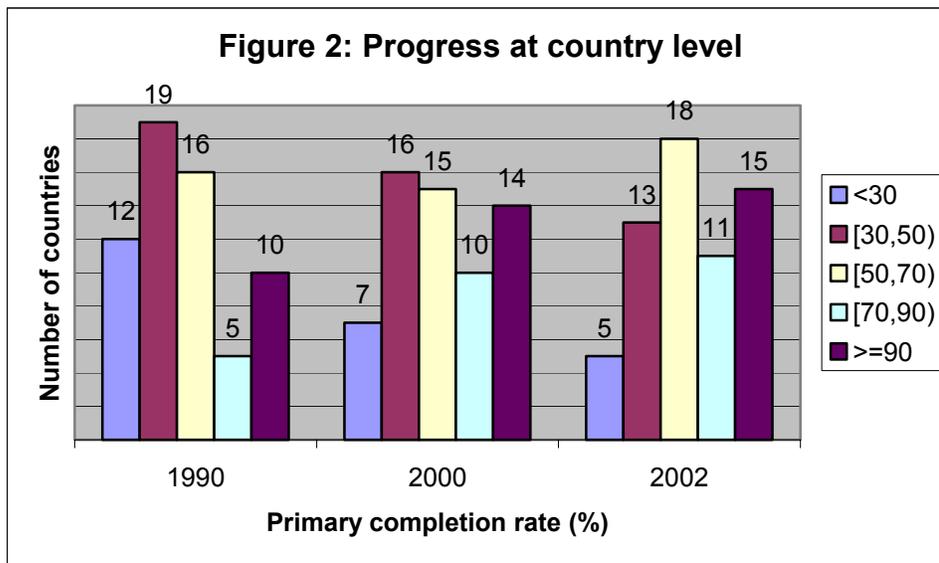
28.   However, the number of countries with a positive growth rate can only partially reflect the improvement made in the IDA countries during this period. It does not inform us about how many countries are making progress in this period and how far these countries are to the goal of universal primary education. For example, the fact that two thirds of the IDA countries have made positive growth since 2000 seems to be at least as informative and relevant as the second target. Figure 2 shows that the progress has been made across the board. Countries[22] are grouped into five classes depending on whether their completion rates were less than 30 percent, or between 30 percent and 50 percent, or between 50 percent and 70 percent, or between 70 percent and 90 percent, or 90 percent or higher. The distribution of the number of countries among the five classes is plotted for the three benchmark years — 1990, 2000 and 2002. The numbers of countries belonging to the lowest two classes has decreased steadily, from 12 in 1990 to 5 in 2002 for the lowest class and from 19 to 13 for the second lowest class. At the same time, the other three classes see an increasing number of members during this period.

29.   Table G4 presents the progress in a more dynamic way. Countries are grouped according to the classifications of both their 1990 primary completion rates and their 2002 PCRs. Each row shows the 2002 distribution out of a group of countries with a specific classification in 1990, while each column shows the 1990 distribution out of a group of countries with a specific classification in 2002. So the cells on the right of the diagonal cells represent improvement in the completion rate classification, while the cells below the diagonal cells represent a deterioration. Altogether there are twenty-nine countries that have improved, and only five that have moved down. These five countries are Burundi, Central African Republic, Congo Democratic Republic, Nigeria, and Zambia, all in the Sub-Saharan Africa.

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[21]   Among the seventy countries included in the "New Spring 2004 Result", eight have no 1990 value. Another seven countries are excluded in counting the number of countries with positive growth relative to 1990 because their 1990 values exceed 100 percent.

[22]   The seven countries whose 1990 values exceed 100 percent are included in Figure 2 and Table F4.

Table G4: Change in Distribution

1990 value	Total	2002 value				
		<30	[30,50)	[50,70)	[70,90)	>=90
<30	12	3	7	2	0	0
[30,50)	19	2	5	6	3	3
[50,70)	16	0	1	8	5	2
[70,90)	5	0	0	1	3	1
>=90	10	0	0	1	0	9

30.   Another limitation of the target for the number of countries with positive growth relative to 1990 is that it neither informs us whether the "performing" countries (countries with positive growth relative to 1990 value in 2000) have kept on making progress after 2000, nor does it inform us whether the "non-performing" countries (countries with no positive growth relative to 1990 value in 2000) have made progress after 2000. It would be interesting to see whether the two groups have been following a similar growth path, both before and after 2000.

Table G5: Different Growth Experience for IDA Countries[23]

	Average completion rate (not weighted)					
	1990	1995	1999	2000	2001	2002
If countries grouped by:						
2000 value >1990 value	42	51	57	60	61	63
2000 value <= 1990 value	65	55	53	53	55	56
If countries grouped by:						
1990 value<70%	42	47	52	53	55	57
1990 value>=70%	85	81	82	85	85	84

31.   Table G5 strongly suggests two different growth paths for the IDA countries. The "performing" countries, as defined above, have made impressive progress in the 90s as well as in the 2000-02 period, but from a low starting point. The "non-performing" countries, on the contrary, have experienced a decline in the 90s from a much higher starting point, but reversed the decline decisively in the recent years. There are fifteen "non-performing" countries[24], with a primary completion rate in 1990 ranging from 34 percent (Rwanda) to 92 percent (Zambia). Three "non-performing" countries (Cambodia, Cameron and Guyana) have surpassed their 1990 values in the 2001-02 period. Even if the two groups are defined based on whether the 1990 value is greater than 70 percent or not, the difference in their growth paths remains. The countries with 1990 values less than 70 percent have made progress continuously in the 1990s, and similar improvement in the 2000-02 period. But most countries whose 1990 values are equal to or greater than 70 percent[25] have seen their primary completion rates fluctuating around their 1990 values since 1990.

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[23]   The seven countries whose 1990 values exceed 100 percent are excluded here.
[24]   Armenia, Burundi, Cambodia, Cameroon, Central African Republic, Congo Dem. Rep., Congo Rep., Ghana, Guyana, Kenya, Nigeria, Rwanda, Sudan, Vanuatu, Zambia.
[25] Armenia, Georgia, Guyana, Indonesia, Nigeria, Vanuatu, Serbia and Montenegro, Zambia.

32.   The difference in growth potential in primary completion rates among IDA countries should be taken into consideration in setting any new target in the future. Countries with different initial levels of completion rates may face very different policy options. The impact of similar policy inputs is likely to be different across countries. So initial condition should be considered in setting targets.

D. Conclusion

33.   IDA countries have made significant progress on both measles immunization coverage rate and primary completion rate by 2002. The targets for both indicators have been met.

34.   One lesson that can be drawn from this experience is that the target-setting process should be based on clear assumptions and principles in order to be informative in the later policy debate. A clear understanding of the logic underlying the expected progress could facilitate an assessment of actual progress against a given target when the baseline value is revised or when a different set of countries have to be included due to data availability constraint. Even more important, when clear links cannot be made between policy interventions and the targeted results, we cannot say what has worked in the case of reaching the target and what has not worked in the case of failure.

35.   Another lesson is that targets need to be comprehensive, allowing a straightforward interpretation, and intended to measure progress during a relevant period. The target of the number of countries with positive growth relative to 1990 should be reassessed in the future results-measurement system. The change in the number of countries with positive growth relative to 1990 fails to capture the progress made by the majority of countries which either have surpassed their 1990 value at the beginning of the measurement period and stayed above their 1990 value during the period, or have not surpassed their 1990 value at the ending point but are on the way to breakthrough. Therefore, the benchmark of 1990 value used should be replaced with one that is comparable across countries and more relevant for the MDG target—universal primary education.

EXECUTIVE SUMMARY OF THE
IMPLEMENTATION OF THE AGENDA ON MANAGING FOR RESULTS[1]

1.   The need to better manage for results—to use information to improve decision-making and steer country-led development processes toward clearly-defined goals—has emerged at the forefront of the global development agenda in the post-Monterrey period.   The conceptual framework for the results agenda was defined in the course of 2002 as the next step in the World Bank's long-standing efforts to improve delivery management, operational quality, and aid effectiveness. Implementation of the Bank-wide agenda on better managing for results began in early 2003 with an Implementation Action Plan that called for actions across three pillars: (a) *in countries*, where development results are achieved, to strengthen both capacity and demand to manage for results; (b*) in the Bank*, to enhance the relevance and effectiveness of our contribution to results; and (c) *across development agencies,* to harmonize results-based approaches and better coordinate support to strengthen country capacity to manage for results.

2.   *Questions for the Committee.*   Progress across the three pillars of the results agenda is summarized below.   In reviewing this report, members of the Committee on Development Effectiveness may wish to address the following questions:

- How could the Bank further bolster its efforts to help countries strengthen their capacity for strategic planning, public sector management, statistics and monitoring and evaluation?

- To what extent has the design of early results-based country assistance strategies met the need for a more monitorable and evaluable way to track the Bank's contribution to country results?

- What more could the Bank do to encourage the global partnership to harmonize results reporting and increase coordination of support to countries to strengthen capacity?

A.   Recent Progress

3.   Over the past year, the Bank has moved beyond the conceptualization phase into the implementation phase of the results agenda. Within this short period, progress has been made on all pillars of the Implementation Action Plan. Nonetheless, much remains to be done to fully implement an agenda that requires medium-term institutional development at the country level, systems development and a further change in mindset within the Bank, and an easing of constraints to harmonized action among donors.

4.   *Strengthening Country Demand and Capacity to Manage for Results.*   Developing countries need both sustained political will and national institutional capacity to manage for results. This is the fundamental issue of the results agenda and its most difficult challenge. To address this challenge, the Bank has focused on helping countries strengthen national strategic planning (including for poverty reduction strategies) and provided support for results-based public sector management, statistical capacity and monitoring and evaluation systems. Initial progress includes strengthened guidance from the Poverty Reduction and Economic

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[1]   *Implementation of the Agenda on Managing for Results,* (R2004-0071, IDAR2004-0097), May 6, 2004.

Management Network (PREM) on design and monitoring and evaluation of Poverty Reduction Strategy Papers (PRSPs), and demand-driven support from the Bank's Monitoring and Evaluation Improvement Program (MEIP) for countries to assess their institutional readiness and to strengthen results-based approaches to public sector management. An important step this past year was development by the Development Economic Data Group (DECDG) of the Statistical Capacity Building Program (STATCAP)—approved by the Board on March 25— which provides a sectorwide approach to building capacity based on a strategic statistical plan for providing reliable and timely data on countries' core development outcomes as articulated in their PRSPs or national development strategies.

5.   ***Enhancing the Bank's Contribution to Development Results.*** Significant first year progress has been made in increasing the focus on results in Bank strategies, instruments, incentives, and reporting systems. In particular, country teams have made progress in piloting a central element of the agenda: moving to a results-based country assistance strategy (CAS) that shifts the focus to country-level results and more explicitly links these results to the choice of products and services within Bank programming. Sector Boards also made progress in strengthening the results frameworks and outcome monitoring for sector and thematic strategies. Revision of basic documents and procedures has begun to strengthen the articulation of outcome-oriented objectives and monitoring for Bank operations. Further, broad agreement on an International Development Association (IDA) results measurement system that focuses on progress toward country outcomes and on IDA's contribution through the CAS has been an important step toward improved reporting on results. However, development of a more comprehensive results reporting system will be sequenced in coming years to take advantage of enhanced monitoring and evaluation of CASs, sector strategies, and global programs. In terms of staff learning and incentives, a Bank-wide event, Results: Everybody's Business, held in early January 2004 highlighted emerging good practices and sent strong signals throughout the institution on the importance of implementing the results agenda.

6.   ***Fostering a Global Partnership on Managing for Development Results.*** A formal partnership has been established through the Multilateral Development Bank (MDB) Working Group and, more recently, through the MDB/Organization for Economic Co-operation and Development-Development Assistance Committee (OECD-DAC) Joint Venture on Managing for Development Results. For the global statistical community, more than a year of preparation resulted in agreement on a medium-term global action plan to strengthen international statistical systems. The Second International Roundtable on Managing for Development Results, held in February 2004, helped foster an emerging consensus on priorities for the global partnership. Sponsoring agencies endorsed a Joint Memorandum, core principles and action plan that can serve as a foundation to broaden this consensus and take further action in coming years.

B.   Looking Ahead

7.   In FY05, the Bank will deepen implementation of the results agenda. A continued change in mindset within the institution will be critical for this deepening to occur across all three pillars of the action plan.

8.   ***Country Capacity.*** Supporting countries in strengthening capacity to manage for results remains the most difficult longer-term challenge of the results agenda. In the near term, the

Bank will increase advocacy and outreach on the importance of managing for results through regional workshops, and teams will intensify support within country assistance strategies to strengthen country capacity to manage for results. Regions and Networks will work more closely with the World Bank Institute, PREM, DEC, OPCS and other central units to provide clients with a better integrated menu of services to support the strengthening of core capacities in public sector management, statistical systems, and monitoring and evaluation.

9.   ***Internal Focus.*** Within the Bank, implementation will focus on expanding coverage and improving the quality of results-based CASs and CAS Completion Reports, strengthening the monitoring and evaluation framework for sector strategies and global programs, beginning to develop a more comprehensive results reporting system, reinforcing technical support for task teams and rolling out a revised staff learning program. Getting staff incentives right— particularly informal ones—will remain the greatest internal challenge in supporting countries to achieve sustainable development results. The Bank will further analyze this internal issue in the coming year, drawing on the work of the new Task Force on Organizational Effectiveness.

10.   ***Global Partnership.***   The global partnership requires greater commitment and coordination of resources for strengthening country capacity, as well as increased donor willingness to harmonize reporting requirements. In 2004, the MDB Working Group and OECD-DAC Joint Venture will identify and disseminate good practices in managing for results, raise awareness through regional activities and support country-led processes to harmonize results reporting in at least four countries. The Results Secretariat will coordinate preparation of a global good practice guide on managing for development results, drawing on country and partner experiences to date.

11.   ***Near-term Progress Indicators.*** In looking ahead to the next Progress Report which will report on implementation of the results agenda through end-FY05, the Bank has established monitorable indicators that reflect the concerns of the three pillars. By end-FY05, Committee members can expect the following:

- Ten country studies on poverty monitoring systems completed, to draw lessons and good practice on the design, establishment and functioning of such systems in the PRSP context;

- Strategic statistical plans completed for at least half of all PRSP countries;

- STATCAP programs effective in at least five countries;

- At least 20 CASs with adequate results frameworks and Completion Reports;

- At least 75 percent of projects under implementation are satisfactory or better for monitoring and evaluation;

- Bank participation in country-led processes to harmonize results reporting around national M&E systems in at least four African countries (per Marrakech Action Plan).

12.   ***Driving Progress across the Three Pillars.*** At the Results: Everybody's Business event in January 2004, Bank staff noted that "the focus on results is here to stay." As one Manager

concluded, "it is no longer a question of 'if', but rather, of 'how' we manage for results."[2] This represents an important—albeit nascent—change in mindset that is critical to a sustained and successful focus on results. Nurturing this change will be essential, and the Bank will take further action to ensure that managers at all levels of operations send consistent signals on the importance of managing for country results, and provide clear rewards for doing so. With appropriate signals from managers, and continued support from Executive Directors, Bank staff will become increasingly results-focused in their day-to-day work, incorporating in Bank programming greater support to strengthen country demand and capacity to manage for development results. Ultimately, nothing can substitute for countries' capacity and will to steer their own development processes toward desired outcomes. Much can be done, however, to help countries achieve better development outcomes through the Bank's unwavering commitment to implement the agenda on managing for results.

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[2]   See Results Everybody's Business Newsletter for January 12, 2004, http://opcs/ME/rx/news/results_jan12_screen.pdf