

STRENGTHENING AFRICAN GOVERNANCE

IBRAHIM INDEX OF AFRICAN GOVERNANCE:
RESULTS AND RANKINGS

2008

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C O N T E N T S

THE INDEX OF AFRICAN GOVERNANCE TEAM	1
THE ADVISORY COUNCIL	3
ACKNOWLEDGEMENTS	5
I. THE MEANING OF GOVERNANCE: RANKING AFRICA	7
II. THE 2008 RESULTS: INDEX OF AFRICAN GOVERNANCE.....	11
Tables	
The Rankings	13
Country Scores 2000–2006	14
Country Ranks 2000–2006	15
Category Scores and Totals for 2006 (Countries “A” to “Z”).....	16
Category Scores and Totals for 2006 (By Rank).....	17
III. MEASUREMENT, METHODS, AND MORE	19
IV. INDICES AND GOVERNANCE	27
CATEGORY I: SAFETY AND SECURITY	31
Sub-Categories	
National Security	31
Public Safety	32
Tables	
Safety and Security Rankings, by 2006 Index Score	33
Safety and Security Rankings, by 2000, 2002, and 2005 Index Score	34
Safety and Security Category Scores, Alphabetical	35
Safety and Security Rank, Alphabetical	36
Safety and Security Summary of Indicators and Principal Sources	37
Safety and Security Summary of “Raw” Data, 2006, Alphabetical.....	38
Safety and Security Scores and Category Calculations, 2006, Alphabetical	40

Sub-Sub-Category (Indicator) Data and Explanations

Government Involvement in Armed Conflicts	42
<i>Indicator Explanation</i>	42
<i>Raw and Scaled Data</i>	43
Number of Battle-Deaths in Armed Conflicts	44
<i>Indicator Explanation</i>	44
<i>Raw and Scaled Data</i>	45
Number of Civilian Deaths Due to One-Sided Violence	46
<i>Indicator Explanation</i>	46
<i>Raw and Scaled Data</i>	47
Refugees and Asylum Seekers Originating From Each Country	48
<i>Indicator Explanation</i>	48
<i>Raw and Scaled Data</i>	50
Internally Displaced Persons	51
<i>Indicator Explanation</i>	51
<i>Raw and Scaled Data</i>	55
Ease of Access to Small Arms and Light Weapons	56
<i>Indicator Explanation</i>	56
<i>Raw and Scaled Data</i>	59
Researcher’s Report: “Small Arms in Africa: Legal Indicators” (by Denise Garcia).....	60
Level of Violent Crime	66
<i>Indicator Explanation</i>	66
<i>Raw and Scaled Data</i>	70

CATEGORY II: RULE OF LAW, TRANSPARENCY, AND CORRUPTION 71**Sub-Categories**

Ratification of Critical Legal Norms	71
Existence of Independent and Efficient Judicial Systems	72
Corruption	72

Tables

Rule of Law Rankings, by 2006 Index Score	73
Rule of Law Rankings, by 2000, 2002, and 2005 Index Score	74
Rule of Law Category Scores, Alphabetical	75
Rule of Law Rank, Alphabetical	76
Rule of Law Summary of Indicators and Principal Sources	77
Rule of Law Summary of “Raw” Data, 2006, Alphabetical	78
Rule of Law Scores and Category Calculations, 2006, Alphabetical	80

Sub-Sub-Category (Indicator) Data and Explanations

Ratification of Core International Human Rights Conventions	82
<i>Indicator Explanation</i>	82
<i>Raw and Scaled Data</i>	84
International Sanctions	85
<i>Indicator Explanation</i>	85
<i>Raw and Scaled Data</i>	86

Property Rights	87
<i>Indicator Explanation</i>	87
<i>Raw and Scaled Data</i>	89
Judicial Independence Using Freedom House’s “Rule of Law” Sub-Score	90
<i>Indicator Explanation</i>	90
<i>Raw and Scaled Data</i>	91
Efficiency of the Courts	92
<i>Indicator Explanation</i>	92
<i>Efficiency of Courts, based on Pre-Trial Detainees—</i>	
<i>Raw and Scaled Data</i>	96
Number of Days to Settle a Contract Dispute	97
<i>Indicator Explanation</i>	97
<i>Raw and Scaled Data</i>	98
Public Sector Corruption	99
<i>Indicator Explanation</i>	99
<i>Raw and Scaled Data</i>	102
Researcher’s Report: “Measuring Corruption” (by Oyinola Shyllon)	103
CATEGORY III: PARTICIPATION AND HUMAN RIGHTS	105
Sub-Categories	
Participation in Elections	105
Respect for Civil and Political Rights	106
Tables	
Participation and Human Rights Rankings, by 2006 Index Score	109
Participation and Human Rights Rankings, by 2000, 2002,	
and 2005 Index Score	110
Participation and Human Rights Category Scores, Alphabetical	111
Participation and Human Rights Rank, Alphabetical	112
Participation and Human Rights Summary of Indicators and	
Principal Sources	113
Participation and Human Rights Summary of “Raw”	
Data, 2006, Alphabetical	114
Participation and Human Rights Scores and Category	
Calculations, 2006, Alphabetical	116
Sub-Sub-Category (Indicator) Data and Explanations	
Free, Fair, and Competitive Elections	118
<i>Explanation of Four Indicators</i>	118
<i>Free and Fair Executive Elections—Raw and Scaled Data</i>	121
<i>Opposition Participation in Executive Elections—</i>	
<i>Raw and Scaled Data</i>	122
<i>Free and Fair Legislative Elections—Raw and Scaled Data</i>	123
<i>Opposition Participation in Legislative Elections—</i>	
<i>Raw and Scaled Data</i>	124

Respect for Physical Integrity Rights	125
<i>Indicator Explanation</i>	125
<i>Raw and Scaled Data</i>	127
Respect for Civil Rights	128
<i>Indicator Explanation</i>	128
<i>Raw and Scaled Data</i>	131
Press Freedom	132
<i>Indicator Explanation</i>	132
<i>Raw and Scaled Data</i>	134
Absence of Gender Discrimination, Measured in Terms of Women’s Rights	135
<i>Explanation of Three Indicators and Composite Measure</i>	135
<i>Women’s Economic Rights—Raw and Scaled Data</i>	137
<i>Women’s Political Rights—Raw and Scaled Data</i>	138
<i>Women’s Social Rights—Raw and Scaled Data</i>	139
<i>Women’s Rights—Raw and Scaled Data</i>	140
CATEGORY IV: SUSTAINABLE ECONOMIC OPPORTUNITY	141
Sub-Categories	
Wealth Creation	141
Macroeconomic Stability and Financial Integrity	141
The Arteries of Commerce	142
Environmental Sensitivity	142
Tables	
Sustainable Economic Opportunity Rankings, by 2006 Index Score	143
Sustainable Economic Opportunity Rankings, by 2000, 2002, and 2005 Index Score	144
Sustainable Economic Opportunity Category Scores, Alphabetical	145
Sustainable Economic Opportunity Alternate Category Scores, Alphabetical	146
Sustainable Economic Opportunity Rank, Alphabetical	147
Sustainable Economic Opportunity Summary of Indicators and Principal Sources	148
Sustainable Economic Opportunity Summary of “Raw” Data, 2006, Alphabetical	150
Sustainable Economic Opportunity Scores and Category Calculations, 2006, Alphabetical	152
Sub-Sub-Category (Indicator) Data and Explanations	
GDP per Capita	154
<i>Indicator Explanation</i>	154
<i>Raw and Scaled Data</i>	156
GDP per Capita Growth	157
<i>Indicator Explanation</i>	157
<i>Raw and Scaled Data</i>	158

Inflation	159
<i>Indicator Explanation</i>	159
<i>Raw and Scaled Data</i>	160
Deficits/Surplus as a Percentage of GDP	161
<i>Indicator Explanation</i>	161
<i>Raw and Scaled Data</i>	162
Reliability of Financial Institutions	163
<i>Indicator Explanation</i>	163
<i>Contract Intensive Money—Raw and Scaled Data</i>	164
Number of Days to Start a Business	165
<i>Indicator Explanation</i>	165
<i>Raw and Scaled Data</i>	167
Road Network	168
<i>Indicator Explanation</i>	168
<i>Raw and Scaled Data</i>	175
Electricity Capacity	176
<i>Indicator Explanation</i>	176
<i>Raw and Scaled Data</i>	177
Telephone Subscribers	178
<i>Indicator Explanation</i>	178
<i>Raw and Scaled Data</i>	180
Computer Usage	181
<i>Indicator Explanation</i>	181
<i>Raw and Scaled Data</i>	182
Internet Usage	183
<i>Indicator Explanation</i>	183
<i>Raw and Scaled Data</i>	184
Environmental Performance Index	185
<i>Indicator Explanation</i>	185
<i>Raw and Scaled Data</i>	186
CATEGORY V: HUMAN DEVELOPMENT	187
Sub-Categories	
Poverty	187
Health and Sanitation	188
Educational Opportunity	189
Tables	
Human Development Rankings, by 2006 Index Score	192
Human Development Rankings, by 2000, 2002, and 2005 Index Score	193
Human Development Category Scores, Alphabetical	194
Human Development Rank, Alphabetical	195
Human Development Summary of Indicators and Principal Sources	196
Human Development Summary of “Raw” Data, 2006, Alphabetical	198

Human Development Scores and Category Calculations, 2006, Alphabetical.....	200
Sub-Sub-Category (Indicator) Data and Explanations	
Poverty	202
<i>Explanation of Three Indicators</i>	202
<i>Poverty Rate at \$1 per Person per Day—Raw and Scaled Data</i>	210
<i>Poverty Rate at National Poverty Line—Raw and Scaled Data</i>	211
<i>Inequality (Gini Index) —Raw and Scaled Data</i>	212
Researcher’s Report: “Income Inequality in sub-Saharan Africa” (by Zekarias Hussein)	213
Life Expectancy at Birth (Years)	218
<i>Indicator Explanation</i>	218
<i>Raw and Scaled Data</i>	219
Child Mortality	220
<i>Indicator Explanation</i>	220
<i>Raw and Scaled Data</i>	221
Maternal Mortality	222
<i>Indicator Explanation</i>	222
<i>Raw and Scaled Data</i>	223
Undernourishment	224
<i>Indicator Explanation</i>	224
<i>Raw and Scaled Data</i>	225
Immunization	226
<i>Explanation of Two Indicators</i>	226
<i>Immunization Rate, Measles—Raw and Scaled Data</i>	227
<i>Immunization Rate, DPT—Raw and Scaled Data</i>	228
HIV Prevalence	229
<i>Indicator Explanation</i>	229
<i>Raw and Scaled Data</i>	230
Incidence of Tuberculosis	231
<i>Indicator Explanation</i>	231
<i>Raw and Scaled Data</i>	232
Health Care Workforce	233
<i>Explanation of Two Indicators</i>	233
<i>Physicians per 100,000 People—Raw and Scaled Data</i>	234
<i>Nursing and Midwifery Personnel—Raw and Scaled Data</i>	235
Access to Drinking Water	236
<i>Indicator Explanation</i>	236
<i>Raw and Scaled Data</i>	237
Adult Literacy	238
<i>Explanation of Two Indicators</i>	238
<i>Adult Literacy Rate—Raw and Scaled Data</i>	242
<i>Adult Literacy Rate, Female—Raw and Scaled Data</i>	243

Primary Education	244
<i>Explanation of Two Indicators</i>	244
<i>Primary School Completion Rate—Raw and Scaled Data</i>	247
<i>Primary School Completion Rate, Female—</i> <i>Raw and Scaled Data</i>	248
Pupil-Teacher Ratio, Primary	249
<i>Indicator Explanation</i>	249
<i>Raw and Scaled Data</i>	250
Progression to Secondary School	251
<i>Indicator Explanation</i>	251
<i>Raw and Scaled Data</i>	252
Ratio of Girls to Boys in School	253
<i>Indicator Explanation</i>	253
<i>Raw and Scaled Data</i>	254
Researcher’s Report: “Tertiary Education Indicators” (by Sagita Muco)	256

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I

 THE MEANING OF GOVERNANCE: RANKING AFRICA

All citizens of all countries desire to be governed well. That is what citizens want from the nation-states in which they live. Thus, nation-states in the modern world are responsible for the delivery of essential political goods to their inhabitants. That is their purpose, and has been their central legitimate justification since at least the seventeenth century. The essential political goods can be summarized and gathered under five categories: Safety and Security; Rule of Law, Transparency, and Corruption; Participation and Human Rights; Sustainable Economic Opportunity; and Human Development. Together, these five categories of political goods epitomize the performance of any government, at any level. No one, whether looking to her village, municipality, province, state, or nation, willingly wants to be victimized by crime or to live in a society without laws, freedom, the chance to prosper, or access to decent schools, well-run hospitals, and well-maintained roads.

This 2008 Index measures the degree to which each of these political goods is provided within the forty-eight African countries south of the Sahara. By comprehensively measuring the performance of government in this manner, that is, by measuring governance, the Index is able to offer a report card on the accomplishments of each government for the years being investigated—2000 and 2002 (for baseline indications) and 2005 and 2006 (the last years with reasonably complete available data for nearly all sub-Saharan African nation-states).

The Index is updated annually. Additionally, the sources of information for the indicators used in our Index are also updated constantly, both through our own efforts and through the efforts of other projects. Thus, in each year, we employ the best available data. Unlike many other projects, we also update the Index backward in each year, using all of this new information so that comparisons over time can be made. This allows the Index to be used to demonstrate how each of the forty-eight countries has shown progress or has slipped backward.

Categories and Sub-Categories

This Index provides more than an overall ranking of countries. Within each of its five measurement categories, separate evaluations and report cards concerning the attainments of each of the forty-eight countries within each category are offered. Further, within each category there are sub-categories, which can again be compared, country against country. Under each sub-category are additional sub-sub-categories or indicators. The Index is, therefore, composed of fifty-seven separate markers capturing the performance of individual countries.

For example, Security is divided into two sub-categories. One is National Security—the degree to which a national government holds an internal monopoly on the use of force and no insurgent groups threaten that monopoly. All forty-eight countries can be compared, for example, according to National Security by showing their casualty numbers in civil wars. Kilometers of paved roads per 1,000 people is another example of a result that is capable of being arrayed across all nation-states, this time as one of the measurement areas (a sub-sub-category) within Arteries of Commerce, a sub-category under Sustainable Economic Opportunity.

Diagnostic Utility

This method of measuring performance, as expressed meticulously in the Index, is explicitly diagnostic. It permits citizens (and civil society), country by country, to appreciate how the attainments of their governments compare to neighboring and other African governments. It permits governing authorities to make the same comparisons. In each, the numbers enable citizens, government, donors, and international organizations to visualize the areas that need improvement or at least more attention. If crime rates, for example, reduce a nation-state's score on the Security category, then enhancing Public Safety would be wise.

The makers of this Index, now in its second iteration, also note the lack of timely information available for assessing some important areas of governance—information that is either not collected regularly internationally or locally at all, or, for some reason, is not made available to the public by the nation-states themselves.

Objectivity and Outcomes

In selecting measures of governance, the Index strives for transparency and simplicity. Thus, unlike other such indexes, it is not based exclusively on perceptions or the judgments of experts. Such data are often difficult to verify against any standard metric, and reasonable people may differ markedly in their perceptions and judgments. Instead, insofar as possible, the Index reflects objective data—the hard numbers available on each country. In the absence of such numbers, it seeks to use “objectively measured” data—systematically derived scores that could be replicated by other researchers following the same approach. Moreover, the Index measures outcomes, not inputs. That is, it asks under each heading: What has a government achieved? How well has it performed? It does not measure good intentions or official financial budgetary promises—both inputs that may or may not result in appropriate performance. In other words, it does not concern the Index if a nation is spending high or low levels of budgeted outlays on, say, health services. The Index prefers to know what results have come from those expenditures. Have citizens benefited? Have their health outcomes improved, as measured by maternal mortality rates or by, say, access to clean water?

The makers of the Index realize that factors beyond government action in a specific year may affect the outcomes measured. That is why the Index provides more than single indicator assessments of the performance of African countries. That is why the Index is updated annually, to track changes over time. Conceivably, national resource factor endowments and baseline GDP compilations should be used to disaggregate our forty-eight African cases for purposes of ranking, in addition to the overall ranking method that we adopted in the 2007 Index of African Governance. However, we still need to compare the attainments of all countries in sub-Saharan Africa against their peers, irrespective of their wealth or size, or of other factors that might arguably affect the performance of their governments.

Underlying Epistemology

Methodologically, we are aware that our definition of governance plows new ground. Many economists prefer to limit governance to rule of law and participation (broadly conceived), and argue against using all of our five categories to measure governmental delivery of services (political goods) and to equate that delivery with governance. They argue, further, that the causal relationship between the actions of governments in power and all of the indicators that we include is problematic; outcomes may be caused by the actions of previous governments, underlying resource endowments, levels of wealth, ethnic heterogeneity, and so on.

We argue, however, that our attention must be focused on *citizens*, and citizens tend to measure governmental performance in the manner that we do. A variety of factors in addition to government policy may contribute to governance outcomes, but citizens nevertheless have a right to expect their governments to adjust accordingly, to provide at least a minimum level of political goods in their countries. They can and should hold their governments to account for providing security, rule of law, economic opportunity, educational opportunities, health care, and social safety nets. They can and should expect to participate in government and to have their basic rights respected by their governments. Thus, to decide whether governments in Africa are fulfilling their full responsibilities, we need to extend our measurement of outputs to include all five of our categories, and the sub-sub-categories (indicators) that compose those five categories.

We are aware that governmental actors do not constitute the only determination of some of our outputs. In the human development area, in particular, other factors in addition to governmental attention and action clearly influence literacy, school persistence, child mortality, and so on. But governments do play a major role and have an influence that we attempt to capture. We see our Index as a useful guideline that other scholars might employ to examine these factors further. Indeed, as many scholars know, there are complex processes behind each and every indicator, in each and every country, in each and every year.

Because this Index represents a methodological departure from other attempts to measure governance, especially for Africa, and because it contains many entries and embodies such conceptual complexity, the Index represents a work in progress. The makers of the Index hence will welcome all suggestions and constructive criticisms. The ultimate goal of the Index and the efforts of the Mo Ibrahim Foundation and Harvard's Kennedy School of Government is to bring governance out of the closet—to strengthen governance in Africa in order to improve the lives of Africans everywhere.

Index Contents

This 2008 Index has three main sections. The first section gives the overall 2006 country rankings and scores for each of sub-Saharan Africa's forty-eight nation-states, along with an essay describing those rankings. Those scores comprise the average sum of the five categories by which governance is measured, on a 0–100 scale. Rankings follow straightforwardly from the scores; the country ranked first has the highest score, and the country ranked last has the lowest score. Rankings are provided for ease of comparison, but should always be read along with the country scores, which provide important information about the magnitude of differences in performance between countries, some of which may be virtually indistinguishable.

The overall scores for 2000, 2002, and 2005 and overall category scores for 2006 are also presented and described in this first section of the report. In addition, this first section includes two additional essays regarding the Index's methodology and its approach in comparison to that of other projects.

The next section, divided into five sub-sections (one for each category), gives the rankings for the same years across each of the five categories in turn. Each category is explained in a detailed introduction, which is followed by a display of the results in each category, listed in ranked order and alphabetically for the years 2000, 2002, 2005, and 2006. Additional tables at the beginning of each sub-section provide the comprehensive statistics ("raw" data and Index scores) for 2006, showing all major and minor categories (sub-categories and sub-sub-categories) and illustrating the calculation of the category score.

The remaining pages in each sub-section focus on each sub-sub-category (indicator) in turn. For each indicator, there is a descriptive note and table providing comprehensive statistics and scores for 2000, 2002, 2005, and 2006. Descriptive notes range from one to seven pages, and provide detailed information and discussion about the sources of our data, methods, and specific points. Our aim is to be fully transparent.

In several sub-sections, we include selected "researcher's reports," which are descriptive notes prepared by our researchers as background material for the Index. Most of the researcher's reports in this year's Index present additional research on our indicators—on small arms, inequality, and the measurement of corruption. An additional researcher's report included in the Human Development category focuses on tertiary education, discussing data we chose not to include in this year's Index.

This Index is the fruit of a partnership between the Program on Intrastate Conflict of the John F. Kennedy School of Government, Harvard University, and the Mo Ibrahim Foundation. It has been greatly strengthened by consultations with members of our Index Advisory Council and with the Board of the Mo Ibrahim Foundation.

The makers of the Index have also benefited from and are very grateful for the collaborative assistance that we have received from several divisions of the World Bank, UNDP, Transparency International, the Economist Intelligence Unit, the Cingranelli-Richards (CIRI) Human Rights Data Project, the trustees of the World Peace Foundation, and the Harvard University Library. A fuller list of warm acknowledgments is contained in an additional paper under that title.

I I

THE 2008 RESULTS: INDEX OF AFRICAN GOVERNANCE

This year's Index of African Governance results are remarkably consistent with those of the first, 2007, Index of African Governance. Mauritius and the Seychelles again rank first and second, followed by Cape Verde, Botswana, and South Africa, which rank third, fourth, and fifth, respectively, in the 2008 Index. This year, in contrast to 2007, Cape Verde and Botswana have switched places, although their scores remain close. South Africa's rank has not changed. Namibia, Ghana, Gabon, São Tomé and Príncipe, and Senegal, in that order, round out the top ten of the 2008 country rankings, Namibia moving ahead of Gabon, and Senegal and São Tomé and Príncipe switching places. However, the score differences remain slight among this second group.

The bottom ten of the forty-eight countries this year also show consistency, all with scores below 50. That list of nations most "needing improvement" includes, for 2008, Nigeria, Guinea, Eritrea, Côte d'Ivoire, the Central African Republic, Angola, the Sudan, Chad, the Democratic Republic of the Congo, and Somalia, in descending order. Somalia's "government" in fact collects and makes available so little information about the country that its Index score must be calculated with considerable data missing; although its rank at the bottom appears to be reliable, its score should be treated as a rough approximation. New to these lowest rankings in 2008 are Eritrea, Nigeria, Guinea, and Côte d'Ivoire, all of which slipped a few places, while Sierra Leone, Burundi, Liberia, and Guinea-Bissau have moved up several places in the 2008 Index as compared to the 2007 Index.

The 2008 Index of African Governance has benefited from several improvements, and new and enhanced sources of data. The next essay, "Measurements, Methods, and More," explains the exact ways in which the 2008 Index of African Governance is more robust than the 2007 Index. Additional and better information, as discussed in the next essay, may have driven some of the changes up or down, especially where the numerical distinctions are small. To make it possible to study carefully improvements and declines in governance for each country, all changes have been incorporated retrospectively for all years in the 2008 Index. Analysts, as per usual practice, should refer to this latest version of the data when making comparisons over time.

Improvements and Regressions

The 2008 Index shows clearly that Liberia is the "most improved" in terms of governance performance over the last two Index years (2005 and 2006), as shown by a more than 10 point improvement in its score, thanks largely to its dramatic improvement in the area of Participation and Human Rights, as well as modest improvements in Security, Sustainable Economic Opportunity, and Human Development. Burundi is the second most-improved, thanks to improvements in all categories, and especially in Participation and Human Rights. Uganda, Guinea-Bissau, Madagascar, the Comoros, Burkina Faso, Swaziland, and Djibouti, among others, have also demonstrated upward gains in their overall scores. Mauritania, followed by Chad, has notably gone backward the most in its scores. Using the differences between 2002 and latest Index year (2006) as a measure, Burundi, Liberia, Angola, and Rwanda were the most improved and Mauritania and Chad the most disadvantaged.

In terms of improvements in rankings (not scores) over the last two Index years, Uganda and Burundi tied for most improved, jumping eight places each, followed by Guinea-Bissau (seven places), Liberia (six places), and Djibouti and Burkina Faso (three places each). Changes in rankings differ from changes in scores because rankings reflect the relative positions of other countries as well, while scores highlight a country's performance against its previous record. Mauritania (by eleven places), the Gambia (seven places), and Guinea (six places) fell the most in the rankings. Looking at 2002 as compared to the most recent year (2006), Rwanda gained seventeen places; Cameroon, nine; and Burundi and the Comoros, eight. Mauritania fell by thirteen places, followed by the Gambia, which fell ten places. (Listings of all sub-Saharan African countries with their scores and ranks for each year follow.)

Anomalies and Chronological Problems in 2007 and 2008

As was the case for the 2007 Index of African Governance, this year's Index is based on the most complete statistics available, which requires a two year lag. The 2008 Index thus is based on international and locally acquired data for the 2006 year and does not reflect the myriad social, economic, and political upheavals affecting sub-Saharan Africa during 2007 and 2008. The events and alterations of 2007 will be captured in next year's Index.

As a result, the recent massive deterioration in Zimbabwe's security, rule of law, human rights record, economy, and human development is not reflected in the 2008 Index. Nor are the troubles following the Kenyan election of 2007, the coups in Mauritania, the battles in the Comoros, the security enhancements in Uganda, the political shifts in South Africa, a flawed election in Nigeria, the continued hostilities in the Democratic Republic of the Congo, and so on. For timely reports on these events, we refer readers to the very useful qualitative analyses provided by the International Crisis Group, Freedom House, the Institute for Security Studies, Amnesty International, and Human Rights Watch, among other sources.

That said, the 2008 Index does faithfully capture governance (as defined in the preceding essay in this volume) throughout all of sub-Saharan Africa. A few of the individual country results merit additional explanation, particularly in light of events in 2007 and 2008, however. In the case of Zimbabwe, because Human Development numbers change slowly over time and because there was no substantial intrastate violence before 2007, scores are higher than impressionistic inference (even for 2006) would suggest. Likewise, again driven by Gabon's intrinsic security and its relatively robust human development and economic opportunity scores, Gabon remains ranked among the top ten in the 2008 Index, as in the 2007 Index. However, in both of these special cases, other category scores show the alterations that anecdotal evidence would imply, in particular for Gabon where it has unimpressive scores in the Participation and Human Rights category (ranking 26th of 48 countries). Zimbabwe's rank and score have dropped only slightly between 2005 and 2006, which seems improbable, but we expect the decline to be greater in 2007. It is also likely that some recent changes in performance indicators have not yet been captured adequately in the government statistics provided to international organizations, even with the data currently available.

Somalia, in last place this year as it was last year in the rankings, has slipped in scores as well, falling to below 20, but that very low score may reflect the difficulty of gathering accurate numbers for a country that still lacks a government, and therefore (according to the methodology of this Index) cannot—by definition—supply political goods.

The Rankings

Rank	Country	2006 Index of African Governance Score
1	Mauritius	85.1
2	Seychelles	79.8
3	Cape Verde	74.7
4	Botswana	74.1
5	South Africa	71.5
6	Namibia	70.9
7	Ghana	70.1
8	Gabon	69.4
9	Sao Tome and Principe	68.3
10	Senegal	66.1
11	Malawi	63.9
12	Lesotho	63.3
13	Benin	62.5
14	Comoros	61.9
15	Tanzania	61.6
16	Madagascar	60.4
17	Kenya	59.1
18	Rwanda	59.1
19	Uganda	58.3
20	Burkina Faso	58.3
21	Zambia	58.3
22	Mozambique	57.1
23	Mali	55.9
24	Niger	55.5
25	Cameroon	55.4
26	Djibouti	55.2
27	Gambia	55.2
28	Congo	53.3
29	Togo	53.0
30	Guinea-Bissau	51.9
31	Ethiopia	50.9
32	Mauritania	50.8
33	Zimbabwe	50.4
34	Swaziland	50.2
35	Burundi	50.0
36	Equatorial Guinea	49.2
37	Sierra Leone	49.1
38	Liberia	48.7
39	Nigeria	48.5
40	Guinea	47.8
41	Eritrea	46.5
42	Cote d'Ivoire	45.6
43	Central African Republic	43.6
44	Angola	43.3
45	Sudan	34.2
46	Chad	33.9
47	Congo, Democratic Republic	29.8
48	Somalia	18.9

Country Scores 2000–2006

	Index of African Governance 2000	Index of African Governance 2002	Index of African Governance 2005	Index of African Governance 2006
Angola	31.9	33.3	43.0	43.3
Benin	65.4	63.3	61.4	62.5
Botswana	74.0	74.3	73.7	74.0
Burkina Faso	52.2	53.1	55.9	58.3
Burundi	37.5	38.5	42.3	50.0
Cameroon	49.6	49.7	54.7	55.4
Cape Verde	71.0	73.1	75.0	74.7
Central African Republic	46.9	46.3	44.5	43.6
Chad	38.2	39.0	38.3	33.9
Comoros	54.1	54.9	59.2	61.9
Congo	48.3	51.0	53.2	53.3
Congo, Democratic Rep.	25.8	27.1	29.4	29.8
Cote d'Ivoire	47.9	45.5	44.6	45.6
Djibouti	54.6	55.1	53.1	55.2
Equatorial Guinea	46.0	47.2	49.7	49.2
Eritrea	39.2	46.7	47.1	46.5
Ethiopia	45.2	51.6	52.0	50.9
Gabon	69.2	71.0	69.4	69.4
Gambia	53.0	57.5	56.4	55.2
Ghana	65.0	68.0	69.4	70.1
Guinea	51.8	50.5	48.6	47.8
Guinea-Bissau	53.8	51.6	47.7	51.9
Kenya	57.4	58.0	59.5	59.1
Lesotho	52.9	61.7	61.2	63.3
Liberia	39.3	37.5	38.3	48.7
Madagascar	57.3	54.9	57.6	60.4
Malawi	64.2	63.4	63.7	63.9
Mali	49.6	53.2	55.9	55.9
Mauritania	50.1	56.5	56.2	50.8
Mauritius	82.7	82.7	86.1	85.1
Mozambique	54.9	57.3	56.0	57.1
Namibia	73.0	72.7	70.4	70.9
Niger	51.2	52.0	55.2	55.5
Nigeria	45.2	45.5	47.3	48.5
Rwanda	47.6	49.6	57.9	59.0
Sao Tome and Principe	66.1	69.4	70.1	68.3
Senegal	62.6	65.6	66.1	66.1
Seychelles	77.9	78.0	78.1	79.8
Sierra Leone	39.1	50.1	48.4	49.1
Somalia	22.5	21.7	22.5	18.9
South Africa	70.6	70.9	70.9	71.5
Sudan	35.8	36.6	35.3	34.2
Swaziland	47.9	47.8	47.9	50.2
Tanzania	55.1	61.1	60.2	61.6
Togo	51.3	51.8	51.4	53.0
Uganda	50.5	53.4	54.1	58.3
Zambia	52.5	57.7	57.4	58.3
Zimbabwe	51.5	52.3	51.2	50.4

Country Ranks 2000–2006

	2000 Rank	2002 Rank	2005 Rank	2006 Rank
Angola	46	46	42	44
Benin	9	12	12	13
Botswana	3	3	4	4
Burkina Faso	23	25	23	20
Burundi	44	43	43	35
Cameroon	30	34	26	25
Cape Verde	5	4	3	3
Central African Republic	36	39	41	43
Chad	43	42	45	46
Comoros	18	22	16	14
Congo	32	31	28	28
Congo, Democratic Rep.	47	47	47	47
Cote d'Ivoire	33	40	40	42
Djibouti	17	20	29	26
Equatorial Guinea	37	37	33	36
Eritrea	41	38	39	41
Ethiopia	38	29	30	31
Gabon	7	6	9	8
Gambia	20	17	20	27
Ghana	10	9	8	7
Guinea	24	32	34	40
Guinea-Bissau	19	30	37	30
Kenya	13	15	15	17
Lesotho	21	13	13	12
Liberia	40	44	44	38
Madagascar	14	21	18	16
Malawi	11	11	11	11
Mali	31	24	24	23
Mauritania	29	19	21	32
Mauritius	1	1	1	1
Mozambique	16	18	22	22
Namibia	4	5	6	6
Niger	27	27	25	24
Nigeria	39	41	38	39
Rwanda	35	35	17	18
Sao Tome and Principe	8	8	7	9
Senegal	12	10	10	10
Seychelles	2	2	2	2
Sierra Leone	42	33	35	37
Somalia	48	48	48	48
South Africa	6	7	5	5
Sudan	45	45	46	45
Swaziland	34	36	36	34
Tanzania	15	14	14	15
Togo	26	28	31	29
Uganda	28	23	27	19
Zambia	22	16	19	21
Zimbabwe	25	26	32	33

Category Scores and Totals for 2006 (Countries “A” to “Z”)

	Safety and Security	Rule of Law, Transparency, and Corruption	Participation and Human Rights	Sustainable Economic Opportunity	Human Development	Index of African Governance Score 2006
Angola	82.0	38.4	29.0	32.9	34.4	43.3
Benin	86.1	52.3	81.1	36.9	56.2	62.5
Botswana	75.0	81.6	87.4	58.2	68.0	74.1
Burkina Faso	86.1	56.5	70.1	30.3	48.4	58.3
Burundi	62.0	48.3	60.4	35.9	43.3	50.0
Cameroon	77.7	43.3	54.7	44.7	56.5	55.4
Cape Verde	100.0	86.1	77.7	47.2	62.6	74.7
Central African Republic	46.7	42.7	60.2	34.9	33.2	43.6
Chad	51.5	40.1	29.8	25.6	22.5	33.9
Comoros	94.4	52.8	73.1	37.5	51.5	61.9
Congo	68.5	43.5	48.6	48.7	57.1	53.3
Congo, Democratic Rep.	52.8	24.3	14.7	26.3	30.7	29.8
Cote d'Ivoire	75.2	36.0	22.6	42.9	51.6	45.6
Djibouti	86.0	43.6	55.6	36.8	54.0	55.2
Equatorial Guinea	86.0	43.3	32.2	48.5	36.0	49.2
Eritrea	81.0	56.6	10.6	35.4	48.8	46.5
Ethiopia	72.8	47.9	40.4	40.5	52.7	50.9
Gabon	100.0	56.4	61.2	61.6	67.8	69.4
Gambia	86.0	54.7	42.5	40.5	52.2	55.2
Ghana	86.1	72.7	80.2	47.3	64.3	70.1
Guinea	80.3	51.0	25.4	32.3	50.0	47.8
Guinea-Bissau	80.5	34.6	75.2	23.3	45.8	51.9
Kenya	63.3	56.0	63.3	48.6	64.5	59.1
Lesotho	75.0	69.3	75.5	42.9	53.7	63.3
Liberia	58.8	26.8	87.9	36.9	33.2	48.7
Madagascar	86.1	57.3	74.9	39.4	44.3	60.4
Malawi	86.1	64.0	69.1	40.7	59.7	63.9
Mali	77.8	50.0	74.7	31.4	45.8	55.9
Mauritania	71.0	58.8	30.8	36.8	56.5	50.8
Mauritius	91.7	80.5	92.2	71.4	89.9	85.1
Mozambique	86.1	50.4	70.4	36.7	41.7	57.1
Namibia	83.3	76.7	75.3	57.4	61.6	70.9
Niger	86.1	51.7	79.4	27.6	32.5	55.5
Nigeria	63.7	48.2	44.1	40.7	45.9	48.5
Rwanda	98.4	46.0	69.5	37.7	43.6	59.1
Sao Tome and Principe	100.0	55.6	83.4	41.5	61.1	68.3
Senegal	85.4	66.2	81.7	42.3	54.9	66.1
Seychelles	83.2	80.4	76.9	70.0	88.4	79.8
Sierra Leone	79.6	37.3	69.8	27.1	31.8	49.1
Somalia	38.8	8.2	6.4	26.0	15.2	18.9
South Africa	61.1	78.1	86.3	63.5	68.7	71.5
Sudan	29.0	29.8	12.0	42.2	58.0	34.2
Swaziland	69.4	56.9	28.8	46.5	49.2	50.2
Tanzania	83.3	59.6	65.4	43.4	56.4	61.6
Togo	77.2	47.1	44.2	42.0	54.4	53.0
Uganda	75.1	55.8	61.0	42.2	57.4	58.3
Zambia	77.8	60.5	66.6	43.0	43.5	58.3
Zimbabwe	75.1	44.6	41.9	38.8	51.7	50.4

Category Scores and Totals for 2006 (By Rank)

	Safety and Security	Rule of Law, Transparency, and Corruption	Participation and Human Rights	Sustainable Economic Opportunity	Human Development	Index of African Governance Score 2006
Mauritius	91.7	80.5	92.2	71.4	89.9	85.1
Seychelles	83.2	80.4	76.9	70.0	88.4	79.8
Cape Verde	100.0	86.1	77.7	47.2	62.6	74.7
Botswana	75.0	81.6	87.4	58.2	68.0	74.1
South Africa	61.1	78.1	86.3	63.5	68.7	71.5
Namibia	83.3	76.7	75.3	57.4	61.6	70.9
Ghana	86.1	72.7	80.2	47.3	64.3	70.1
Gabon	100.0	56.4	61.2	61.6	67.8	69.4
Sao Tome and Principe	100.0	55.6	83.4	41.5	61.1	68.3
Senegal	85.4	66.2	81.7	42.3	54.9	66.1
Malawi	86.1	64.0	69.1	40.7	59.7	63.9
Lesotho	75.0	69.3	75.5	42.9	53.7	63.3
Benin	86.1	52.3	81.1	36.9	56.2	62.5
Comoros	94.4	52.8	73.1	37.5	51.5	61.9
Tanzania	83.3	59.6	65.4	43.4	56.4	61.6
Madagascar	86.1	57.3	74.9	39.4	44.3	60.4
Kenya	63.3	56.0	63.3	48.6	64.5	59.1
Rwanda	98.4	46.0	69.5	37.7	43.6	59.1
Uganda	75.1	55.8	61.0	42.2	57.4	58.3
Burkina Faso	86.1	56.5	70.1	30.3	48.4	58.3
Zambia	77.8	60.5	66.6	43.0	43.5	58.3
Mozambique	86.1	50.4	70.4	36.7	41.7	57.1
Mali	77.8	50.0	74.7	31.4	45.8	55.9
Niger	86.1	51.7	79.4	27.6	32.5	55.5
Cameroon	77.7	43.3	54.7	44.7	56.5	55.4
Djibouti	86.0	43.6	55.6	36.8	54.0	55.2
Gambia	86.0	54.7	42.5	40.5	52.2	55.2
Congo	68.5	43.5	48.6	48.7	57.1	53.3
Togo	77.2	47.1	44.2	42.0	54.4	53.0
Guinea-Bissau	80.5	34.6	75.2	23.3	45.8	51.9
Ethiopia	72.8	47.9	40.4	40.5	52.7	50.9
Mauritania	71.0	58.8	30.8	36.8	56.5	50.8
Zimbabwe	75.1	44.6	41.9	38.8	51.7	50.4
Swaziland	69.4	56.9	28.8	46.5	49.2	50.2
Burundi	62.0	48.3	60.4	35.9	43.3	50.0
Equatorial Guinea	86.0	43.3	32.2	48.5	36.0	49.2
Sierra Leone	79.6	37.3	69.8	27.1	31.8	49.1
Liberia	58.8	26.8	87.9	36.9	33.2	48.7
Nigeria	63.7	48.2	44.1	40.7	45.9	48.5
Guinea	80.3	51.0	25.4	32.3	50.0	47.8
Eritrea	81.0	56.6	10.6	35.4	48.8	46.5
Cote d'Ivoire	75.2	36.0	22.6	42.9	51.6	45.6
Central African Rep.	46.7	42.7	60.2	34.9	33.2	43.6
Angola	82.0	38.4	29.0	32.9	34.4	43.3
Sudan	29.0	29.8	12.0	42.2	58.0	34.2
Chad	51.5	40.1	29.8	25.6	22.5	33.9
Congo, Democratic Rep.	52.8	24.3	14.7	26.3	30.7	29.8
Somalia	38.8	8.2	6.4	26.0	15.2	18.9

I I I

MEASUREMENT, METHODS, AND MORE

The accurate measurement of the performance of governments depends upon the devising of appropriate indicators capable of capturing from the bottom up what citizens regularly look to their nation-state, provincial, municipal, and village polities to provide. We have rigorously attempted to do such measurement in this Index, building upon the explanatory papers that were published prior to the first Index. In addition to the five categories, fourteen sub-categories, and this year fifty-seven sub-sub-categories (“SSCs” or “indicators”) that we are using to measure performance and governance in the 2008 Index, more variables could doubtless provide further calibrations and refinements. But we think that the 2008 Index, and the numbers arrayed in it, present sufficient complexity to capture and display the attainments of and the differences between governments at any level, anywhere (not just in Africa).

Measuring what political or organizational entities do is not new. Benchmarking and preparing report cards on various kinds of performance is well-established. Indeed, in recent years, with regard to national governments, indices and ranking systems have proliferated. There are happiness, global peace, global integrity, economic freedom, competition, corruption, political freedom, and many other index offerings. There are a variety of national, regional, and international attitudinal surveys, some extremely ambitious. But what makes this 2008 Index of African Governance unique (and the 2007 Index as well) is its attempt to be comprehensive across a broad range of data for all forty-eight sub-Saharan African countries. Among projects that seek to measure governance comprehensively, only the World Bank’s Worldwide Governance Indicators is as complete in its coverage of countries. Other projects with similarly complete country coverage—such as Transparency International’s Corruption Perceptions Index; the UNDP’s *Human Development Report*; and Freedom House’s Freedom in the World Report—are designed to measure only *components* of governance (here corruption, human development, and political rights and civil liberties, respectively). Among other broader projects on governance, the United Nations Economic Commission for Africa’s *African Governance Report (AGR)*, for instance, provided data on twenty-six sub-Saharan countries in its first report in 2005. The second AGR, slated for publication in 2008, will cover an additional nine countries. The latest round of Afrobarometer surveys conducted during 2008 will cover twenty countries. The most recent phase (2005–2007) of the World Governance Assessment conducted by the Overseas Development Institute (ODI) covers six sub-Saharan African countries.

National Sources

The availability of good data drive each of these efforts, not least our own. In preparing the first Index of African Governance (and this year’s version), we found numbers for many indicators much harder to obtain than we expected. Although some figure for some year for most countries is generally available for most of the SSCs, obtaining data for every appropriate year from international sources is especially difficult. In order to supplement internationally available sources (such as the World Bank’s World Development Indicators, UNESCO, WHO, and so on) this year we attempted to collect good numbers for approximately twenty SSCs from national sources in each of sub-Saharan Africa’s forty-eight countries. In-

country researchers and research institutes, employed and directed by the Index staff, sought to gather such information from national statistical offices and from ministries of justice, health, agriculture, and so on. This massive effort was mostly successful; in this year's Index we provide measures that are fuller and stronger than in 2007 because of the deployment of locally derived numbers. Nevertheless, despite mining the international sources used in 2007 and new ones available for the first time in 2008, some missing numbers still remain for a few SSCs for a handful of countries. Each of those gaps is mentioned in the notes to the individual SSCs.

With data arriving directly from individual countries, there is the added challenge of assessing data comparability across countries. For this reason, we have not been able to use in this year's Index all of the numbers that our researchers ably collected. For instance, we use estimates on maternal mortality compiled only by WHO, UNICEF, UNFPA, and the World Bank, not those of our researchers. As statistics on maternal mortality published in UNICEF's *The State of the World's Children 2008* report illustrate, there are often major differences between country-reported and "adjusted" figures on the maternal mortality ratio. (The adjustments are performed by WHO, UNICEF, UNFPA, and the World Bank based on complicated algorithms.) In Guinea-Bissau's case, for instance, the reported figure is 410 deaths per 100,000 live births and the adjusted figure is 1100. A related problem with the data, often noted by experts, is that official statistics themselves may be collected in a faulty manner or may not capture well what they purport to assess. This problem is worse in some countries than in others, and this reality must always be taken into account.

The interpretation of official national and international crime statistics poses a particular challenge. Variation in official crime rates may reflect not only variation in the actual number of crimes committed, but also variation in record-keeping and reporting—itsself a measure of public faith or lack of faith in a national criminal justice system. Higher official crime rates might thus reflect both a negative and a positive governance outcome. We do not have solutions to these and similar data problems, but we will remain attentive to them as we continue to develop more sophisticated methods of data collection, both internationally and locally, through our research teams on the ground in Africa.

The Latest Numbers

Another important point about the numbers used in our Index is that in accord with the best international practices, they are fully updated in each year—both for the latest year *and* retrospectively for previous years. Data used in the 2008 Index of African Governance reflect the best available numbers as of approximately mid to late July 2008. Exact dates on which our sources were last accessed are noted in the descriptions for each indicator. Although not all indices submit to this rigorous standard, we do so in order to take advantage of the best available data, while producing an Index from which meaningful comparisons can be made over time. Data sources improve continuously due to new information, better estimation techniques, and corrections to simple errors. Standard international sources are regularly revised for previous years. This is true even for basic indicators like the inflation estimates released by the IMF, or GDP per capita figures released by the World Bank. In several cases, we have employed new data sources that measure specific SSCs more completely than our previous sources.

This retrospective revision—compelled by international data reassessments—means that numbers used in the 2008 Index of African Governance may be different in some cases from those used in our 2007 Index. In other words, a country's rank in the 2007 Index expressed our assessment, based on the best information available at that time, of its governmental performance relative to other countries in that year. If better information became available in 2008, that earlier assessment was adjusted. Such revisions do imply some changes in previous years' overall rankings, but, in general, we find few radical changes overall. In terms of comparisons year to year, therefore, the most meaningful comparisons are made using the data published in each year's Index. Naturally, many casual users of the Index will draw comparisons between a country's 2007 Index ranking and its 2008 Index ranking. For precise calibrations, however, researchers, as always, should follow standard research protocol and use the latest data release in their work.

Normalizing the Data

This Index avoids being prescriptive in terms of policies, letting the numbers tell the performance story. Those interested may review the raw data for each of the fifty-seven SSCs in order to develop a full, nuanced picture of performance in each country. But, the makers of the Index also agreed that a single composite score for each country—and, based on that, a ranking of all countries—was important for broad comparisons.

In calculating this composite score, we have had to make several key decisions. The first was how to normalize the raw data, putting it on a common scale so that the many different measures included in the Index could be compared and combined to calculate a single overall score. Such calculations can be done in numerous ways, three of which are essential for this Index. Most methods produce similar results in terms of the best and worst performers. But the manner in which the data are normalized and re-scaled does affect year-to-year comparisons and the ease of determining whether a nation-state in sub-Saharan Africa is improving its performance or regressing.

Among the three key methods, the first permits viewers to see at a glance whether a country is being governed more effectively this year compared to a previous year. A second method shows whether a country's rank has increased or decreased compared to the other forty-seven African nation-states, but is based on specific single year measurements and thus cannot show intrinsic year-to-year changes. A third method benchmarks each country's results for 2000 or some later year and carries increases or decreases forward ever afterward by displaying increments or slippages more or less than the benchmark.

Each of these methods has advantages and serious disadvantages, which are not immediately obvious. Those tradeoffs are explained succinctly below, together with a discussion of the method that is being used for the 2008 Index to calculate the final rankings. Readers need to be aware, further, that the rankings aggregate fifty-seven SSC measurements that are organized under fourteen sub-categories, and then gathered as scores under five defining categories. By any method, too, the overall rankings of countries by category are based on averages of scores by sub-category (and in turn by SSC). For ease of comparison, we have assigned a rank value (1 to 48) to each country by arraying these overall scores from highest to lowest. Both ranks and scores, however, are needed fully to understand a country's performance: the differences between some country scores are considerable, while those between others are not statistically significant.¹

There is no single standard method of calculating an index.² Deciding among methods depends upon various considerations, including the type of comparisons that the analyst seeks to emphasize, the characteristics of the underlying data, and the theoretical value of placing emphasis on “outliers.” It was critical in both the first Index of African Governance and this second one to emphasize relative simplicity as compared to other methods (i.e., the ease with which the results could be understood by non-statisticians).³ The makers of the Index also seek to ensure that the real data themselves—rather than targets or reference points set arbitrarily—governed the scaling of the data.⁴ Doing so was considered important for the Index because of the theoretical difficulties and potentially random nature of selecting constant reference points for all fifty-seven SSCs. Additionally, we sought a method that would not “discard” information, when available, about variation among countries. For instance, although some of the SSCs contain just three possible values (such as “not at all,” “partially,” and “fully”), others have a value from 0 to 100. Because the additional variation when available is useful in distinguishing among countries (even if not available for all SSCs), we refrain from normalizing the SSC data by grouping values into three (or five, or ten) categories.⁵

1 Indeed, in a few cases numbers need to be taken to multiple decimal places to explain the ranking.

2 For a useful summary of methods, see Michela Nardo, Michaela Saisana, Andrea Saltelli, Stefano Tarantola, Anders Hoffman, and Enrico Giovannini, “Handbook on Constructing Composite Indicators: Methodology and User Guide,” OECD Statistics Working Paper, (Paris, 2005).

3 This was one reason that z-scores were not used.

4 This was one reason that “distance from a reference (or target)” methods were not used.

5 This was one reason that methods employing rankings only or categorical scales were not used.

I. The Preferred Method: Year-to-Year Improvement Comparisons:

According to this method, for each SSC, the raw data are re-scaled such that the minimum value across all years of the Index (2000, 2002, 2005, and 2006) receives a score of “0” and the maximum value across all years of the Index, a score of “100.” For each SSC in each country in each year, the score is calculated as follows:

$$SSC_c^t = 100 \times \left(\frac{x_c^t - MIN(X)}{MAX(X) - MIN(X)} \right), \text{ where } x_c^t \text{ is the raw value for that SSC for country } c \text{ in year } t \text{ and } X \text{ describes all raw values across all countries for that SSC across all years 2000, 2002, 2005, and 2006.}$$

(Note that for this method and the other two, because high values may indicate good performance for some SSCs and low values good performance for others, we subtract this sum from 100, as appropriate, so that the best performers always receive the highest values and the worst performers the lowest values. Details about scaling particular SSCs can be found in the descriptive notes to each and in the introductory notes to the various categories.)

Key Benefits:

- Scores for each country can be compared over time for 2000, 2002, 2005, and 2006, as well as relative to other countries within the same year. Using this method, South Africa ranks at 7th in 2002 and 5th in 2005 and 2006, with scores of 70.9, 70.9, and 71.5 for 2002, 2005, and 2006, respectively. Although South Africa’s rank improved between 2002 and 2005 (from 7th to 5th), South Africa’s scores suggest relative stability in the quality of governance from 2002 to 2005 (scores in both years were 70.9). The numbers thus imply that governmental performance remained relatively stable in South Africa, but other countries showed declines in governmental performance.
- The real data for each SSC determine the minimum and maximum values. Doing so is useful for SSCs such as “battle-deaths,” where it is difficult to make predictions about the maximum possible values. An argument can also be made about its use for other SSCs for which the possible range of values is more predictable, such as the literacy rate. For instance, for the literacy rate SSC, one might set the minimum possible value at 0 percent and the maximum possible value at 100 percent. However, because the real data occupy a smaller range for this SSC (17.1 to 91.8 percent), arbitrarily setting the scale at 0 to 100 percent will mean that country values for this SSC will be lower than for other SSCs that do not have this characteristic. That fact might critically affect sub-category, category, and overall scores adversely; therefore, we refrain from scaling in that manner.

Key Weakness:

- If this method is used in each year, the scores of the Index of African Governance will change in each year—both for the latest year and previous years—due to changes in the real minimum and maximum values in various SSCs.

II. The Single Year, Country-to-Country, Relative Comparisons Method:

For each SSC, the raw data are re-scaled in each year such that the minimum value in that year receives a score of “0” and the maximum value in that year receives a score of “100.” In other words, for each SSC in each country in each year, a value is calculated as follows:

$$SSC_c^t = 100 \times \left(\frac{x_c^t - MIN(X^t)}{MAX(X^t) - MIN(X^t)} \right), \text{ where } x_c^t \text{ is the raw value for that SSC for country } c \text{ in year } t \text{ and } X^t \text{ describes the raw values across all countries for that SSC in year } t.$$

Key Benefits:

- Countries can be easily compared against each other in each year.
- Scores remain stable year to year on a simple 0–100 scale.
- Abnormally high or low values in particular years (which may be due to various shocks) only affect scores in that year.

Key Weakness:

- Scores for each country cannot be compared meaningfully year to year, but may unfortunately be interpreted in that way by those who do not fully understand the Index methodology. Using this method, suppose the Seychelles ranked at #2 in 2005, with a score of 82.4. That the Seychelles' score in 2000 was 84.6 and rank #1 would not necessarily suggest, however, that the quality of governance declined from 2000 to 2005. We are only able to say that government performance in the Seychelles has slightly declined relative to other countries between 2000 (when it ranked #1) and 2005 (when it ranked #2). The quality of governance in the Seychelles in fact would have improved; its decline in the rankings is because other countries improved more. But this nuance would be lost on some of the readers of the Index, who may then draw incorrect inferences.

III. The Benchmarking Method:

Data are scaled similarly to Method II, but using 2000 (or another year) as the base year. The minimum and maximum values in 2000 are used to calculate the score for future years, thus allowing scores after 2000 to be below 0 and above 100.

Key Benefits:

- Scores for each country can be compared over time, as well as relative to other countries within the same year (as in Method I).
- Scores for previous years do not change with the addition of new data—i.e., 2005 scores will be constant when 2006 data are added.

Key Weaknesses:

- The scale is arguably less intuitive than in Methods I and II, ranging above 100 and below 0.
- This method potentially allows raw data outliers to skew the overall results: The underlying data used to calculate the Index of African Governance vary significantly, some SSCs having high variation and some, low variation. Thus, in 2002, 2005, 2006, and future years, scores for some SSCs can be expected to jump considerably above 100 (or below 0), while the scores for other SSCs will continue to occupy a narrower range. Major outlier values for even one SSC would have an unfortunately large and misleading effect on the overall Index results. The multimodal nature of the data argues strongly statistically against using this method.

Conclusion:

For the 2007 and 2008 Indexes of African Governance, the makers have chosen to display the category and overall rankings according to Method I, despite its conceivable drawbacks and despite the fact that future editions of the Index will require some retrospective revisions to the numbers collected each year. Method II is simpler, but misleading. Method III is superficially appealing, but much less reliable over time than the other two. The 2008 Index of African Governance employs this first enduring method so as to combine the best features of all three standard methods, without their accompanying disadvantages.

Weights and Weighting

A second key decision in the calculation of a single composite score involves weighting. Within the main categories (Safety and Security, Human Development, and so on) we have had to decide how to weight the sub-categories—i.e., whether the sub-categories were to be counted equally or by some other method to arrive at a total score for each country for each category. We have also had to decide the weighting of the SSCs within each sub-category. In every case but one, Safety and Security, we weighted each of the sub-categories equally, arriving at a score and a rank order for that category, and we did the same for the weighting of SSCs within each sub-category. Doing so seemed fair, but it meant determining—this year and last year—that for, say, Human Development, all of the educational measures (SSCs) should be the equivalent to all of the slightly fewer health measures. For Sustainable Economic Opportunity, we also decided on grounds of fairness and parsimony that all three sub-categories—Wealth Creation, Financial Integrity, and Corruption—were equal, and should be

counted that way in summing the overall score for that category. For Safety and Security, we would ideally have counted the two sub-categories of that category equally, as both National Security and Public Safety are key components of that political good. But, after reflecting at length on the quality of missing data (explained in the introduction to Safety and Security) for crime, we decided that it was more fair and more accurate to weight National Security (where the data were comparatively robust) twice as much as Public Safety, thus weighting the first two-thirds and the second one-third.

For the final overall rankings we chose to weight each category equally in developing a country score instead of over-weighting one or more of the five categories. There are good arguments for using either method. The Index's Advisory Council, comprised of distinguished African scholars and practitioners, urged us to weight each category equally on fairness grounds, although one or more of its members favored over-weighting Safety and Security and/or Sustainable Economic Opportunity and Human Development. One of the makers of the Index long assumed that Safety and Security should be over-weighted in any final result because positive governmental performance is impossible without a large measure of security. Some of the trustees of the Mo Ibrahim Foundation originally favored giving more weight to Sustainable Economic Opportunity than to other categories.

In the final analysis, we chose to weight all categories equally—a decision not to over-weight or favor any category over others. As a check we also ran the numbers in a variety of other ways, over-weighting Safety and Security, Sustainable Economic Opportunity, and Human Development separately. An inspection of all of the different category weighting methods done for the 2007 Index shows that our chosen method produced strong results. Although there were naturally some variations among middle-ranking countries, the best and worst performers are similar across all methods. For that reason, and because—theoretically—we are persuaded that weighting each category equally is fair, and not challengeable on theoretical or epistemological grounds, the ultimate ranking scores that we present are not weighted to favor any category over any other.

Missing Values

A final, related issue that we addressed concerns missing values for specific indicators for specific countries or years. In almost all cases, we include estimates for missing values, as described in the descriptive notes to each indicator, and we use these estimates to calculate the Index as described above. In several instances (particularly in the category of Human Development), even rough estimates were unavailable for some indicators for some countries in some years. In these instances, we have calculated the sub-category, category, and overall Index scores without these missing data points, averaging based on the other available data. This method should yield reliable results if the real values for these missing data points are similar to those for other indicators in the same category relative to other countries. However, if there is significant variation in a country's performance across indicators in some sub-categories this method means that a country's sub-category, category, and overall scores will differ from what they should be—either lower or higher, depending on the case. In the absence of better information about these instances of missing data, however, this method reflects our best overall assessment at this time.

Data Currency

When we began to obtain the international and national data that composed the backbone of the first Index of African Governance, we assumed that data labeled for example 2005, 2006, or 2007 would necessarily supply data for such years. Not so. We gradually became aware that many of the standard and many of the new and appealing international sources of data—for Africa and elsewhere—set out numbers in any given year that might (as we learned through careful sleuthing) be from the year in question, a recent year, or even ten years or more before. Since so many of the international data compilations regurgitate numbers from other datasets without indicating that some or many of the data are, in fact, from earlier years, we have tried in this Index to be transparent about all of our data, and the Index's methods more generally.

A broader problem is the international community's reliance on long out-of-date numbers for all kinds of decision-making. This problem of currency is particularly acute in the health area, but also in education. Road and rail numbers often are also extremely dated, even in standard fact books. Inequality and poverty numbers are sometimes ancient. *Caveat emptor* is the

rule, and this Index has attempted to make those problems explicit, rather than obscure (as some do). The notes for each SSC provide information about the sources and dates of all our figures.

We have also attempted to remedy this last problem of out of date statistics by collecting numbers nationally, as suggested above. Thus we have improved upon some of the internationally available road and poverty numbers, for example, by collecting them ourselves in national capitals. Our successes and failures are detailed in the notes to each SSC.

In general, we have found a two year lag on the release of most of the data we use from international sources, and even for data collected directly in countries. For this reason, the most recent year covered in our 2008 Index of African Governance is 2006.

Statistical Quality

In general, the quality of statistics available for countries and the countries' quality of governance as ranked in the Index go together. Thus, the exact country scores at the low end of the Index should be regarded with caution, although relative positions are informative. The fact that so little information is available about some countries is perhaps not surprising: Yet it is unclear how a government can govern effectively if it is unable or unwilling to collect and make public basic information about the well-being of its citizens. If it does not even collect the sort of information used in this Index, on what basis does it monitor the effects of its policies or draw up strategic plans?

Among countries with the most incomplete statistics, Somalia stands out. Other countries with generally less complete statistics for 2005 and 2006 include Cape Verde, the Central African Republic, Chad, the Comoros, Congo, the Democratic Republic of the Congo, Equatorial Guinea, Eritrea, Guinea-Bissau, Liberia, and Sierra Leone. The "quality" of the available statistics, however, is another matter that we do not evaluate fully here.

Sub-National Variation

A methodological challenge that we will seek to address more fully in future years has to do with variation in government performance within countries. In some cases, such variation can be extreme. For example, the difference in governance and performance between Somaliland (a de facto but unrecognized state) and Somalia cannot be parsed in this Index this year. More generally, in regionally or ethnically divided countries (for instance, the Sudan) the quality of governance has clearly differed markedly across (ethno-) regions, and recent national level statistics may be based on censuses or surveys conducted in only one region. Few international sources present data that recognize such distinctions. This variation is similarly masked in most projects that rely on national-level data. Although we do not have an easy solution, the Index continues to be aware of these issues.

IV

INDICES AND GOVERNANCE

The past decade has seen a proliferation of country indices and rankings, many touching on the theme of good governance. Our early review of this work in 2003 produced a list of almost fifty relevant projects.¹ Our more recent in-house survey in 2007 produced a list well over twice that long.² A handful of these projects have been groundbreaking in their approach and are now standard measures (even while continuing to spark debate). For instance, since the United Nations Development Program (UNDP) first published its *Human Development Report* in 1990, the Human Development Index (HDI) has helped to change the way that practitioners and observers talk about the relative poverty and development of nations—incorporating not only measures of per capita income and material wealth, but also attainments in education and health—in “human development.”³ Similarly, Transparency International’s Corruption Perceptions Index (CPI), launched in 1995, is monitored closely by donors and other international actors, as well as by national governments and civil society groups.⁴ In the measurement of “good governance,” in particular, the World Bank’s Worldwide Governance Indicators (WGI) project has made a notable contribution, incorporating data on perceptions of governance from numerous organizations (32 in 2008) to produce aggregate ratings in 6 areas for over 200 countries from 1996 to 2007.⁵ Why do we need another ranking of countries and another project on governance?

The Index of African Governance is unique among these many projects in a number of key ways. First, it is one of the few to measure “governance” broadly defined. Most other work focuses on *components* of good governance—peace and security, the rule of law, corruption, political participation, human rights, sustainable development, etc. No matter how useful its

1 See Marie Besançon, *Good Governance Rankings: The Art of Measurement*, WPF Report 36 (Cambridge, MA, 2003).

2 For two surveys of this literature, see United Nations Development Programme and European Commission (report prepared by Matthew Sudders and Joachim Nahem), *Governance Indicators: A Users’ Guide* (2004), available at www.undp.org/governance/docs/policy-guide-IndicatorsUserGuide.pdf (last accessed 20 August 2007), and Romina Bandura, “Measuring Country Performance and State Behavior: A Survey of Composite Indices,” A UNDP/ODS Background Paper, Prepared for the Book Project, “The New Public Finance: Responding to Global Challenges,” (New York, 2006). On related topics, see, for instance, Christiane Arndt and Charles Oman, *Uses and Abuses of Governance Indicators* (Paris, 2006); Frederik Booyens, “An Overview and Evaluation of Composite Indices of Development,” *Social Indicators Research*, LIX (2002), 115–151; and Gerardo L. Munck and Jay Verkuilen, “Conceptualizing and Measuring Democracy: Evaluating Alternative Indices,” *Comparative Political Studies*, XXXIV (2002), 5–34.

3 For critical views, see, for instance, Mark McGillivray, “The Human Development Index: Yet Another Redundant Composite Development Indicator,” *World Development*, XIX (1990), 1461–1468, and T.N. Srinivasan, “Human Development: A New Paradigm or Reinvention of the Wheel?” *American Economic Review*, LXXXIV (1994), 238–243. The *Human Development Report* has also included three other composite indices, the Human Poverty Index (HPI), the Gender-related Development Index (GDI), and the Gender Empowerment Measure (GEM).

4 For a critical survey of work on corruption (including the CPI), see, for instance, Stephen Knack, “Measuring Corruption in Eastern Europe and Central Asia: A Critique of the Cross-Country Indicators,” World Bank Policy Research Working Paper 3968, (Washington, D.C., 2006).

5 For a recent discussion on the WGI, see, for instance, Marcus J. Kurtz and Andrew Schrank, “Growth and Governance: Models, Measures, and Mechanisms,” *Journal of Politics*, LXIX (2007), 538–554, and Daniel Kaufmann, Aart Kraay, and Massimo Mastruzzi, “Growth and Governance: A Reply,” *Journal of Politics*, LXIX (2007), 555–562.

approach, the CPI alone is not a measure of good governance: it is one component of a complete measure. Nor is the HDI a complete measure of good governance, for it is not designed to incorporate key aspects like security, the rule of law, and human rights.

Among other major projects there are only a few that directly address governance broadly. These include the WGI project, the World Governance Assessment conducted by the Overseas Development Institute (ODI), the United Nations Economic Commission for Africa's (ECA) *African Governance Report*, the UNDP's Governance Indicators Project, and the World Economic Forum's Global Governance Initiative (GGI).

Setting us apart from these projects, our Index uniquely defines "good governance" as the delivery of key political goods, which we specify in terms of five categories, fourteen sub-categories, and fifty-seven sub-sub-categories (indicators). We argue that this definition is comprehensive and common to all countries. Good government means the supply of those core political goods, whatever the culture and whatever else the government might undertake. The delivery of those core political goods can be measured with basic figures and statistics on poverty, infrastructure, the fairness of elections, the absence of war, and so on. Such statistics can be defined, operationalized, and measured in an objective way and, if done correctly, verified and reproduced by others.

This direct definition and its component categories differ markedly from the way in which good governance is defined and assessed by others. For instance, the WGI uses a variant definition: a "set of traditions and institutions by which authority in a country is exercised. This includes (1) the process by which governments are selected, monitored and replaced, (2) the capacity of the government to effectively formulate and implement sound policies, and (3) the respect of citizens and the state for the institutions that govern economic and social interactions among them."⁶ The World Governance Assessment defines *governance* in reference to "how the rules of the political game are managed," including both formal and informal rules ("rules-in-use"). Drawing a distinction between indicators of performance and process, it focuses on "governance process indicators," which "refer to the quality of governance in terms of how outcomes are achieved."⁷ The ECA's *African Governance Report 2005* identifies "the core elements of good governance" as "political governance, institutional effectiveness and accountability, and economic management and corporate governance," referring readers to the consensus statement endorsed by the Fourth African Development Forum (ADF IV) in Addis Ababa, 11–18 October 2004. It focuses on collecting perceptual data in these areas, noting that it is aimed at "gauging more empirically citizens' perceptions of the state of governance in their countries, while identifying major capacity deficits in governance practices and institutions and recommending best practices and solutions to address them."⁸

In other words, as this brief summary suggests, "good governance" is understood in most other work to be almost entirely a matter of *perceptions* (How do citizens rate their quality of governance? How do experts rate it?), or *process* (Has the country accepted international norms on small arms? Has it adopted free trade policies? Does the country have electoral quotas for women or minorities?), judged in terms of perceptions and often including the implementation of specific policies that are seen to be associated with good outcomes.

6 From "Frequently Asked Questions" at <http://info.worldbank.org/governance/wgi/faq.htm#1> (last accessed 25 August 2008). The precise question given is "What is meant by Governance?" It further divides governance into six dimensions: Voice and Accountability, Political Stability and Absence of Violence, Government Effectiveness, Regulatory Quality, Rule of Law, and Control of Corruption. For further information, see in particular two WGI papers, "Governance Matters III" (pp. 3–5) and "Governance Matters VII" (Appendix D).

7 It further divides governance processes into "six separate areas: (1) civil society, (2) political society, (3) government, (4) bureaucracy, (5) economic society, and (6) judiciary." Goran Hyden, Julius Court, and Kenneth Mease, *Making Sense of Governance: Empirical Evidence from Sixteen Developing Countries* (Boulder, 2004), 2–3. For further information, see also www.odi.org.uk/wga_governance/.

8 ECA, *African Governance Report 2005*, available at www.uneca.org/agr2005/ (last accessed 25 August 2008), xiii; xiv.

By contrast, our approach asserts on the one hand that some key aspects of good governance are captured by objective standards and that public perceptions are often a faulty measure of whether these standards have been met, especially when comparing nations. A *New York Times*/Pew Global Attitudes Poll of ten countries of sub-Saharan Africa, for instance, shows that 83 percent of Ivorians think that their next presidential election will be conducted fairly—more than in any other country in the sample, including Ghana, Mali, Senegal, and South Africa, countries whose record of “free and fair” elections in recent years has been much more impressive.⁹ It is useful to know about Ivorian attitudes for a number of reasons, but, in comparing countries, would we trust that their confidence in their electoral system means that it is in better shape than others on the continent?

On the other hand, our approach is also different because it asserts that the objective standards of good governance may be reached in different ways in different countries. What matters is that some basic political goods are provided: there is no cookie cutter template for good government beyond solid performance. Through public participation—one of our core political goods—a good government may naturally reflect variations in the specific objectives and traditions of its citizens in terms of its specific policy strategies.

Another key way in which the Index of African Governance differs from other index projects on governance and related topics is its country coverage in sub-Saharan Africa, which is among the most complete and up-to-date, examining all forty-eight countries for four years (and to be updated annually). With the notable exception of the WGI, most other projects on governance cover only half or fewer of the countries in sub-Saharan Africa. For example, the ECA’s *African Governance Report 2005* covers twenty-six (plus two in North Africa) and the Worldwide Governance Assessment in Phase II covers (in sub-Saharan Africa) Ghana, Kenya, Mali, Nigeria, Tanzania, and Togo only.¹⁰ Among other surveys that compile relevant information on sub-Saharan African countries, the Afrobarometer project in its most extensive phase (Round 4) will cover twenty countries during 2008; the Global Integrity Report covers twenty for 2006 or 2007; TI’s Global Corruption Barometer covers five in 2007; and the World Bank’s Living Standards Measurement Surveys cover five countries for at least one year.¹¹ All of these projects compile useful information—some much more detailed than our own about the particular countries under study—but they do not provide a comprehensive view of sub-Saharan Africa.

Finally, the Index of African Governance is unique among many of these indices and measurement projects in its commitment to presenting clear, simple data and country rankings—figures that anyone can use to understand in consummate detail how well their government or another government is doing relative to others in a given year. In presenting these data, we have also sought to be as transparent as possible in highlighting data limitations and any areas where further work is needed. Thus, although we present single rankings for each country in each year, we also make available the raw numbers and the sources for each of the indicators that compose each ranking in each category for each country.

9 Lydia Polgreen and Marjorie Connelly, “Poll Shows Africans Wary, But Hopeful about Future” *New York Times* (25 July 2007), A6.

10 The second *African Governance Report*, to be published in late 2008, will cover an additional nine countries.

11 For further information on these projects, see www.afrobarometer.org/; www.globalintegrity.org/; www.transparency.org/policy_research/surveys_indices/gcb/2006; and www.worldbank.org/lms/.

I – SAFETY AND SECURITY

Without Safety and Security, good governance and the provision of all other political goods is impossible. Being safe and secure, in other words, is a prime political good. If there are armed insurgencies within the state or organized violence against the regime, the nation-state is neither safe nor secure for its people. Nation-states that are unable to meet these tests of safety and security are failed or collapsed states. Others, where the supply of these political goods is weak or questionable, are weak or failing nation-states.¹

Nor are the citizens of a modern nation-state safe or secure if the government in power cannot guarantee their personal security. Citizens demand to be free of mugging, car jacking, theft, rape, and homicide. Thus, personal security is the second major component of the public good of safety and security. Countries with lower crime rates are supplying greater quantities and qualities of the safety that is part of the political good of safety and security than those states where crime is rampant.

In order to disaggregate this critical and overarching political good, the Index of African Governance analyzes a nation-state's National Security and its Public Safety in two separate sub-categories. It weights each of the two sub-categories two-thirds and one-third, respectively, to provide a total country score for the category of Safety and Security. There are seven critical sub-sub-categories (indicators) which are measured to create each national profile.

National Security

1. *The number of armed conflicts in which a government is involved during that year* and in which there are at least twenty-five battle-related deaths.² Adapted from the Uppsala Conflict Data Program (UCDP) and International Peace Research Institute, Oslo (PRIO) "Armed Conflict Dataset (Version v.4–2007, 1946–2005)."

2. *Intensity of the violent conflicts in the country in that year*, expressed in terms of the number of battle-related deaths. For 2002 and 2005, our estimate of the number of battle-related deaths is based on the Uppsala Conflict Data Program's "UCDP Battle-Deaths Dataset, v.4.1, 2002–2005" and "UCDP Non-State Conflict Dataset, v.1.1, 2002–2005." Our figure includes the number of battle-related deaths due to armed conflicts in which the government is involved, as well as those due to organized conflicts involving non-state actors. These data were not available for 2000 and 2006, so estimates for these years are based directly on UCDP's Database.³

1 See the extended argument in Robert I. Rotberg, "The Failure and Collapse of Nation-States: Breakdown, Prevention, and Repair," in Rotberg (ed.), *When States Fail: Causes and Consequences* (Princeton, 2004), 1–45.

2 The "armed conflicts" counted here follow UCDP's definition of "a contested incompatibility that concerns government and/or territory where the use of armed force between two parties, of which at least one is the government of a state, results in at least 25 battle-related deaths" (from "UCDP/PRIO Armed Conflict Dataset Codebook – Version 4–2007," 4).

3 Available online at <http://www.pcr.uu.se/gpdatabase/search.php> (last accessed 25 July 2008).

3. *The number of deaths due to intentional attacks on civilians by governments or formally organized armed groups.* The best estimate is given for all episodes of violence that result in at least twenty-five deaths, based on the “UCDP One-Sided Violence Dataset, v.1.2 1989–2005” for 2000, 2002, and 2005, and on the UCDP Database for 2006.⁴

4. *Refugees and asylum seekers originating from each country,* based on the UNHCR’s Statistical Online Population Database and *Statistical Yearbook 2006*. The Index presents figures on both the absolute number of refugees and asylum seekers and the number of refugees and asylum seekers per 100,000 inhabitants, the figure upon which our scores are based. National population figures are from the World Development Indicators 2008.⁵

5. *Internally displaced persons (IDPs),* based principally on estimates and reports of the Internal Displacement Monitoring Centre (IDMC) and the U.S. Committee for Refugees and Immigrants (USCRI)’s *World Refugee Survey* (2001 to 2008 editions). The Index presents figures on both the absolute number of IDPs and the number of IDPs per 100,000 inhabitants. The latter is used to calculate our scores for each country.

6. *Ease of access to small arms and light weapons,* on a 1 to 5 scale where 1 is least accessible, from coding done by the Economist Intelligence Unit (EIU) for the Global Peace Index 2008, supplemented by our own estimates for twenty countries. The EIU coding is based on estimates by EIU analysts, and we follow their methodology. These figures were published for the first time in 2007; thus, available estimates provide a snapshot assessment for 2000–2006, but do not show variation over time. For comparative purposes, we also present new estimates on civilian firearms ownership, provided to us by the Small Arms Survey (Geneva) and Aaron Karp. These estimates are also only available for a snapshot in time.

Public Safety

7. *Level of violent crime,* based on the homicide rate, and scored on a 1 to 5 scale, where 1 is least violent. Our numbers are adapted from coding estimates on rates of homicide done by the EIU for the Global Peace Index 2008. Estimates are based on the 7th, 8th, and 9th United Nations Surveys on Crime Trends and the Operation of Criminal Justice Systems. Our estimates follow the same scheme and are based on the same UN Surveys for available countries not included in the Global Peace Index, our own country research, and other reports, as detailed in the descriptive note for this indicator.

The Index continues to work toward better crime figures—in particular, for assaults, thefts, and rape, in addition to homicide. However, as the experts acknowledge, reliable crime data are simply unavailable for most countries in Africa at this time. Our continuing efforts and other sources are detailed in the descriptive note for this indicator.

Scores in the category of Safety and Security reflect a broad range, from a low of 29.0 for Somalia in 2006 to highs of 100.0 for Cape Verde, Gabon, and São Tomé and Príncipe. These latter countries appear to have perfect scores, but in fact do not; scores come to 100.0 due to rounding. The scores of these three countries reflect the fact that they were involved in no recorded conflicts or episodes of violence resulting in more than 25 battle related deaths, had no recorded IDPs, and received the highest possible scores on the small arms and crime indicators included in the Index. However, all had refugees and asylum seekers, as the indicator tables show, although their numbers were comparatively small. Additional security-related challenges associated with other forms of crime, for instance, are also not yet captured in this category.

⁴ Deaths due to extrajudicial killing are not included here. For information on extrajudicial killing, see the indicator for “Respect for Physical Integrity Rights,” under our “Participation and Human Rights” category.

⁵ Last accessed 24 July 2008.

Safety and Security Rankings

Listed by 2006 Score

1	Cape Verde	100.0
2	Gabon	100.0
3	Sao Tome and Principe	100.0
4	Rwanda	98.4
5	Comoros	94.4
6	Mauritius	91.7
7	Malawi	86.1
8	Mozambique	86.1
9	Madagascar	86.1
10	Burkina Faso	86.1
11	Benin	86.1
12	Niger	86.1
13	Ghana	86.1
14	Djibouti	86.0
15	Equatorial Guinea	86.0
16	Gambia	86.0
17	Senegal	85.4
18	Tanzania	83.3
19	Namibia	83.3
20	Seychelles	83.2
21	Angola	82.0
22	Eritrea	81.0
23	Guinea-Bissau	80.5
24	Guinea	80.3
25	Sierra Leone	79.6
26	Zambia	77.8
27	Mali	77.8
28	Cameroon	77.7
29	Togo	77.2
30	Cote d'Ivoire	75.2
31	Uganda	75.1
32	Zimbabwe	75.1
33	Lesotho	75.0
34	Botswana	75.0
35	Ethiopia	72.8
36	Mauritania	71.0
37	Swaziland	69.4
38	Congo	68.5
39	Nigeria	63.7
40	Kenya	63.3
41	Burundi	62.0
42	South Africa	61.1
43	Liberia	58.8
44	Congo, Democratic Republic	52.8
45	Chad	51.5
46	Central African Republic	46.7
47	Somalia	38.8
48	Sudan	29.0

Safety and Security Rankings

Listed by 2000 Score			Listed by 2002 Score			Listed by 2005 Score		
1	Cape Verde	100.0	Cape Verde	100.0	Cape Verde	100.0		
2	Gabon	100.0	Gabon	100.0	Gabon	100.0		
3	Sao Tome and Principe	100.0	Sao Tome and Principe	100.0	Sao Tome and Principe	100.0		
4	Comoros	94.4	Rwanda	95.0	Rwanda	97.7		
5	Mauritius	91.7	Comoros	94.4	Comoros	94.3		
6	Rwanda	91.4	Mauritius	91.7	Mauritius	91.7		
7	Mozambique	86.1	Mozambique	86.1	Madagascar	86.1		
8	Malawi	86.1	Malawi	86.1	Mozambique	86.1		
9	Madagascar	86.1	Benin	86.1	Burkina Faso	86.1		
10	Benin	86.1	Burkina Faso	86.1	Benin	86.1		
11	Burkina Faso	86.1	Niger	86.1	Niger	86.1		
12	Niger	86.1	Djibouti	86.0	Malawi	86.1		
13	Gambia	86.0	Gambia	86.0	Djibouti	86.0		
14	Ghana	86.0	Equatorial Guinea	86.0	Ghana	86.0		
15	Equatorial Guinea	86.0	Ghana	85.9	Equatorial Guinea	86.0		
16	Djibouti	85.8	Madagascar	85.8	Gambia	86.0		
17	Tanzania	83.3	Senegal	85.6	Senegal	85.9		
18	Seychelles	83.3	Tanzania	83.3	Tanzania	83.3		
19	Senegal	82.1	Seychelles	83.2	Seychelles	83.3		
20	Namibia	79.5	Namibia	81.4	Namibia	83.3		
21	Guinea-Bissau	78.3	Guinea-Bissau	80.5	Eritrea	82.0		
22	Zambia	77.8	Guinea	79.9	Angola	81.6		
23	Mali	77.8	Zambia	77.8	Guinea-Bissau	80.5		
24	Cameroon	77.8	Mali	77.8	Guinea	80.3		
25	Togo	77.7	Cameroon	77.7	Sierra Leone	79.7		
26	Cote d'Ivoire	76.1	Togo	77.5	Zambia	77.8		
27	Zimbabwe	75.9	Sierra Leone	77.1	Mali	77.8		
28	Guinea	75.8	Zimbabwe	77.0	Cameroon	77.7		
29	Uganda	75.1	Eritrea	75.7	Togo	76.7		
30	Lesotho	75.0	Ethiopia	75.6	Cote d'Ivoire	75.5		
31	Botswana	75.0	Lesotho	75.0	Ethiopia	75.2		
32	Ethiopia	74.4	Botswana	75.0	Lesotho	75.0		
33	Mauritania	70.9	Mauritania	70.9	Botswana	75.0		
34	Swaziland	69.4	Swaziland	69.4	Zimbabwe	75.0		
35	Congo	67.8	Cote d'Ivoire	64.0	Mauritania	71.0		
36	Nigeria	63.8	Kenya	63.4	Uganda	70.4		
37	Kenya	63.7	Uganda	63.3	Swaziland	69.4		
38	Eritrea	62.8	Congo	61.9	Congo	67.7		
39	South Africa	61.1	Nigeria	61.7	Kenya	63.0		
40	Angola	57.7	South Africa	61.1	Nigeria	62.8		
41	Sierra Leone	56.8	Angola	56.8	South Africa	61.1		
42	Chad	56.6	Chad	55.4	Burundi	59.8		
43	Central African Republic	55.6	Central African Republic	50.4	Chad	56.5		
44	Liberia	50.1	Burundi	49.1	Liberia	56.2		
45	Burundi	47.8	Liberia	46.6	Congo, Dem. Rep.	52.1		
46	Somalia	45.6	Somalia	40.4	Central African Republic	51.6		
47	Congo, Dem. Rep.	39.3	Sudan	34.2	Somalia	46.0		
48	Sudan	35.5	Congo, Dem. Rep.	32.5	Sudan	31.2		

Safety and Security—Category Scores Listed by Country “A” to “Z”

	2000	2002	2005	2006
Angola	57.7	56.8	81.6	82.0
Benin	86.1	86.1	86.1	86.1
Botswana	75.0	75.0	75.0	75.0
Burkina Faso	86.1	86.1	86.1	86.1
Burundi	47.8	49.1	59.8	62.0
Cameroon	77.8	77.7	77.7	77.7
Cape Verde	100.0	100.0	100.0	100.0
Central African Republic	55.6	50.4	51.6	46.7
Chad	56.6	55.4	56.5	51.5
Comoros	94.4	94.4	94.3	94.4
Congo	67.8	61.9	67.7	68.5
Congo, Democratic Rep.	39.3	32.5	52.1	52.8
Cote d'Ivoire	76.1	64.0	75.5	75.2
Djibouti	85.8	86.0	86.0	86.0
Equatorial Guinea	86.0	86.0	86.0	86.0
Eritrea	62.8	75.7	82.0	81.0
Ethiopia	74.4	75.6	75.2	72.8
Gabon	100.0	100.0	100.0	100.0
Gambia	86.0	86.0	86.0	86.0
Ghana	86.0	85.9	86.0	86.1
Guinea	75.8	79.9	80.3	80.3
Guinea-Bissau	78.3	80.5	80.5	80.5
Kenya	63.7	63.4	63.0	63.3
Lesotho	75.0	75.0	75.0	75.0
Liberia	50.1	46.6	56.2	58.8
Madagascar	86.1	85.8	86.1	86.1
Malawi	86.1	86.1	86.1	86.1
Mali	77.8	77.8	77.8	77.8
Mauritania	70.9	70.9	71.0	71.0
Mauritius	91.7	91.7	91.7	91.7
Mozambique	86.1	86.1	86.1	86.1
Namibia	79.5	81.4	83.3	83.3
Niger	86.1	86.1	86.1	86.1
Nigeria	63.8	61.7	62.8	63.7
Rwanda	91.4	95.0	97.7	98.4
Sao Tome and Principe	100.0	100.0	100.0	100.0
Senegal	82.1	85.6	85.9	85.4
Seychelles	83.3	83.2	83.3	83.2
Sierra Leone	56.8	77.1	79.7	79.6
Somalia	45.6	40.4	46.0	38.8
South Africa	61.1	61.1	61.1	61.1
Sudan	35.5	34.2	31.2	29.0
Swaziland	69.4	69.4	69.4	69.4
Tanzania	83.3	83.3	83.3	83.3
Togo	77.7	77.5	76.7	77.2
Uganda	75.1	63.3	70.4	75.1
Zambia	77.8	77.8	77.8	77.8
Zimbabwe	75.9	77.0	75.0	75.1

Safety and Security—Rank Listed by Country “A” to “Z”

	2000	2002	2005	2006
Angola	40	41	22	21
Benin	10	9	10	11
Botswana	31	32	33	34
Burkina Faso	11	10	9	10
Burundi	45	44	42	41
Cameroon	24	25	28	28
Cape Verde	1	1	1	1
Central African Republic	43	43	46	46
Chad	42	42	43	45
Comoros	4	5	5	5
Congo	35	38	38	38
Congo, Democratic Rep.	47	48	45	44
Cote d'Ivoire	26	35	30	30
Djibouti	16	12	13	14
Equatorial Guinea	15	14	15	15
Eritrea	38	29	21	22
Ethiopia	32	30	31	35
Gabon	2	2	2	2
Gambia	13	13	16	16
Ghana	14	15	14	13
Guinea	28	22	24	24
Guinea-Bissau	21	21	23	23
Kenya	37	36	39	40
Lesotho	30	31	32	33
Liberia	44	45	44	43
Madagascar	9	16	7	9
Malawi	8	8	12	7
Mali	23	24	27	27
Mauritania	33	33	35	36
Mauritius	5	6	6	6
Mozambique	7	7	8	8
Namibia	20	20	20	19
Niger	12	11	11	12
Nigeria	36	39	40	39
Rwanda	6	4	4	4
Sao Tome and Principe	3	3	3	3
Senegal	19	17	17	17
Seychelles	18	19	19	20
Sierra Leone	41	27	25	25
Somalia	46	46	47	47
South Africa	39	40	41	42
Sudan	48	47	48	48
Swaziland	34	34	37	37
Tanzania	17	18	18	18
Togo	25	26	29	29
Uganda	29	37	36	31
Zambia	22	23	26	26
Zimbabwe	27	28	34	32

Safety and Security Summary of Indicators and Principal Sources

Sub-Category 1: National Security		
1	The number of armed conflicts in which a government is involved during that year and in which there are at least twenty-five battle-related deaths	Uppsala Conflict Data Program (UCDP) and International Peace Research Institute, Oslo (PRIO), "UCDP/PRIO Armed Conflict Dataset (Version 4–2007)"
2	Intensity of the violent conflicts in the country in that year, expressed in terms of the number of battle-related deaths	Uppsala Conflict Data Program's "UCDP Battle-Deaths Dataset, v.4.1, 2002–2005"; "UCDP Non-State Conflict Dataset, v.1.1, 2002–2005"; and UCDP Database
3	The number of deaths due to intentional attacks on civilians by governments or organized armed groups	"UCDP One-Sided Violence Dataset, v.1.2 1989–2005" and UCDP Database
4	Refugees and asylum seekers originating from each country	UNHCR's Statistical Online Population Database and <i>Statistical Yearbook 2006</i>
5	Internally displaced persons (IDPs)	"IDP Database" of the Internal Displacement Monitoring Centre (IDMC), the U.S. Committee for Refugees and Immigrants (USCRI)'s <i>World Refugee Survey</i> , and Relief Web
6	Ease of access to small arms and light weapons	Global Peace Index 2008, supplemented by our own estimates and data from the Small Arms Survey and Aaron Karp
Sub-Category 2: Public Safety		
7	Violent crime, expressed in terms of the homicide rate	Global Peace Index 2008, supplemented with our own estimates based on country research, United Nations Surveys on Crime Trends and the Operation of Criminal Justice Systems, and other reports

Safety and Security

	Indicator	ANG	BEN	BOT	BFO	BUR	CAM	CV	CAR	CHD	COM	CON	DRC	CdI	DJI	EQG	ERI	ETH	GAB	GAM	GHA	GUI
a) National Security	Government Involvement in Armed Conflicts	0	0	0	0	2	0	0	2	2	0	0	0	0	0	0	0	5	0	0	0	0
	Number of Battle-Deaths	0	0	0	0	137	0	0	30	1389	0	0	36	0	0	0	0	1010	0	0	0	0
	Civilian Deaths Due to One-Sided Violence	0	0	0	0	0	0	0	108	0	0	0	76	0	0	0	0	26	0	0	0	0
	Refugees and Asylum Seekers From Each Country	1,256.8	4.3	2.4	4.0	4,919.4	75.7	9.6	1,730.4	379.5	13.4	718.5	715.1	172.9	73.2	99.5	4,236.9	117.6	10.3	137.0	48.3	103.6
	Internally-Displaced People	0.0	0.0	0.0	0.0	1,223.5	0.0	0.0	3,446.8	1,076.6	0.0	211.4	1,813.9	3,965.2	0.0	0.0	916.4	259.2	0.0	0.0	0.0	206.9
	Ease of Access to Small Arms and Light Weapons	3	4	3	4	5	4	3	5	4	4	4	5	4	4	4	4	4	3	4	4	4
b) Public Safety	Violent Crime (Homicide Rate)	3	2	4	2	3	3	1	5	5	1	4	5	3	2	2	2	2	1	2	2	2

*Note: See indicator descriptions for sources and additional information. Numbers in italics are estimates.

Summary of “Raw” Data—2006

	GNB	KEN	LES	LIB	MAD	MAW	MLI	MAU	MAS	MZM	NAM	NIR	NIG	RWA	STP	SEN	SEY	SIE	SOM	SAF	SUD	SWA	TAZ	TOG	UGA	ZAM	ZIM
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	2	0	0	
	0	48	0	0	0	0	0	0	0	0	0	0	0	0	0	124	0	0	1145	0	1212	0	0	0	221	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	46	0	0	0	0	0	0	750	0	0	0	46	0	0
	79.8	17.6	0.7	4,626.1	1.5	1.2	8.6	1,157.8	8.1	1.2	59.8	9.5	14.9	1,073.5	20.6	135.9	81.6	844.6	5,755.3	1.4	1,864.3	2.4	4.8	529.2	77.3	2.3	105.8
	0.0	752.3	0.0	153.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	345.5	0.0	0.0	268.4	0.0	0.0	4,736.3	0.0	15,355.6	0.0	0.0	23.4	5,351.4	0.0	4,309.0
	5	5	3	5	4	4	4	5	3	4	3	4	5	3	3	4	3	5	5	4	5	4	3	4	3	4	4
	2	4	4	4	2	2	3	3	2	2	3	2	4	1	1	2	3	2	5	5	5	4	3	3	3	3	3

Safety and Security Summary of Index

	Indicator	ANG	BEN	BOT	BFO	BUR	CAM	CV	CAR	CHD	COM	CON	DRC	CdI	DJI	EQG	ERI	ETH	GAB	GAM	GHA
a) National Security	Government Involvement in Armed Conflicts	100.0	100.0	100.0	100.0	66.7	100.0	100.0	66.7	66.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	16.7	100.0	100.0	100.0
	Number of Battle-Deaths	100.0	100.0	100.0	100.0	95.7	100.0	100.0	99.1	56.4	100.0	100.0	98.9	100.0	100.0	100.0	100.0	68.3	100.0	100.0	100.0
	Civilian Deaths Due to One-Sided Violence	100.0	100.0	100.0	100.0	100.0	100.0	100.0	90.3	100.0	100.0	100.0	93.1	100.0	100.0	100.0	100.0	97.7	100.0	100.0	100.0
	Refugees and Asylum Seekers From Each Country	87.8	100.0	100.0	100.0	52.2	99.3	99.9	83.2	96.3	99.9	93.0	93.1	98.3	99.3	99.0	58.9	98.9	99.9	98.7	99.5
	Internally-Displaced People	100.0	100.0	100.0	100.0	93.4	100.0	100.0	81.5	94.2	100.0	98.9	90.3	78.8	100.0	100.0	95.1	98.6	100.0	100.0	100.0
	Ease of Access to Small Arms and Light Weapons	100.0	50.0	100.0	50.0	0.0	50.0	100.0	0.0	50.0	50.0	50.0	0.0	50.0	50.0	50.0	50.0	50.0	100.0	50.0	50.0
b) Public Safety	Violent Crime (Homicide Rate)	50.0	75.0	25.0	75.0	50.0	50.0	100.0	0.0	0.0	100.0	25.0	0.0	50.0	75.0	75.0	75.0	75.0	100.0	75.0	75.0
National Security Sub-Score (2/3)		98.0	91.7	100.0	91.7	68.0	91.5	100.0	70.1	77.3	91.6	90.3	79.2	87.8	91.5	91.5	84.0	71.7	100.0	91.4	91.6
Public Safety Sub-Score (1/3)		50.0	75.0	25.0	75.0	50.0	50.0	100.0	0.0	0.0	100.0	25.0	0.0	50.0	75.0	75.0	75.0	75.0	100.0	75.0	75.0
Safety and Security 2006		82.0	86.1	75.0	86.1	62.0	77.7	100.0	46.7	51.5	94.4	68.5	52.8	75.2	86.0	86.0	81.0	72.8	100.0	86.0	86.1

*Note: See indicator descriptions for sources and additional information. Scores in italics are based on estimates.

Scores and Category Calculation—2006

	GUI GNB		KEN LES		LIB MAD		MAW MLI		MAU MAS		MZB NAM		NIR NIG		RWA STP		SEN SEY		SIE SOM		SAF SUD		SWA TAZ		TOG UGA		ZAM ZIM	
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	66.7	100.0	66.7	100.0	100.0	100.0	66.7	100.0	100.0
	100.0	100.0	98.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	96.1	100.0	100.0	64.0	100.0	61.9	100.0	100.0	100.0	93.1	100.0	100.0
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	95.9	100.0	100.0	100.0	100.0	100.0	100.0	32.4	100.0	100.0	100.0	95.9	100.0	100.0
	99.0	99.2	99.8	100.0	55.1	100.0	100.0	99.9	88.8	99.9	100.0	99.4	99.9	99.9	89.6	99.8	98.7	99.2	91.8	44.1	100.0	81.9	100.0	100.0	94.9	99.3	100.0	99.0
	98.9	100.0	96.0	100.0	99.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.1	100.0	100.0	98.6	100.0	100.0	74.6	100.0	17.7	100.0	100.0	99.9	71.3	100.0	76.9
	0.0	0.0	0.0	100.0	0.0	50.0	50.0	50.0	0.0	100.0	50.0	100.0	50.0	0.0	100.0	100.0	50.0	100.0	0.0	0.0	50.0	0.0	50.0	100.0	50.0	100.0	50.0	50.0
	75.0	75.0	25.0	25.0	25.0	75.0	75.0	50.0	50.0	75.0	75.0	50.0	75.0	25.0	100.0	100.0	75.0	50.0	75.0	0.0	0.0	0.0	25.0	50.0	50.0	50.0	50.0	50.0
	83.0	83.2	82.4	100.0	75.7	91.7	91.7	91.7	81.5	100.0	91.7	99.9	91.7	83.0	97.6	100.0	90.6	99.9	82.0	58.2	91.7	43.4	91.7	100.0	90.8	87.7	91.7	87.6
	75.0	75.0	25.0	25.0	25.0	75.0	75.0	50.0	50.0	75.0	75.0	50.0	75.0	25.0	100.0	100.0	75.0	50.0	75.0	0.0	0.0	0.0	25.0	50.0	50.0	50.0	50.0	50.0
	80.3	80.5	63.3	75.0	58.8	86.1	86.1	77.8	71.0	91.7	86.1	83.3	86.1	63.7	98.4	100.0	85.4	83.2	79.6	38.8	61.1	29.0	69.4	83.3	77.2	75.1	77.8	75.1

Category: Safety and Security

Sub-Category: National Security

INDICATOR: GOVERNMENT INVOLVEMENT IN ARMED CONFLICT

This first indicator measures the number of armed conflicts in which a government was involved during a given year in which there are at least twenty-five battle-related deaths. It is adapted from the Uppsala Conflict Data Program (UCDP) and International Peace Research Institute, Oslo (PRIO)'s "UCDP/PRIO Armed Conflict Dataset v.4–2007, 1946–2006".¹

For the Index of African Governance, we have assigned to each country in each year a score of "2" for each armed conflict in which the state was involved as a primary party to the conflict and a score of "1" for each armed conflict in which the state was involved through active military support of a primary party to a conflict. Scores are summed to create a single overall score for each country in each year. For instance, a state involved in one conflict as a primary actor, and in another as a supporter, would receive a score of "3" (=2+1).

Ethiopia has consistently had the worst scores on this indicator, with the exception of 2002, when Angola was the worst. Ethiopia's 2006 value of "5" reflects its involvement as a primary actor in two conflicts (with the Ogaden National Liberation Front [ONLF] over Ogaden and with the Oromo Liberation Front [ONF] over Oromiya) and its involvement as a secondary actor in the conflict in Somalia. Ethiopia supported Somalia with troops in the conflict against the Supreme Islamic Council of Somalia (SICS). Other countries involved in conflicts in 2006 include Burundi, the Central African Republic, Chad, Somalia, the Sudan, and Uganda.

Technical Notes

Conflict is defined in the UCDP/PRIO Armed Conflict Dataset Codebook as: "a contested incompatibility that concerns government and/or territory where the use of armed force between two parties, of which at least one is the government of a state, results in at least 25 battle-related deaths."²

The Dataset includes twenty-three variables as described in its codebook. The Index of African Governance uses the following variables to code this indicator:

- "Location," i.e., "the name(s) of the country/countries whose government(s) have a primary claim to the object in dispute;"
- "SideA," i.e., the names of the country or countries that are the primary parties to the conflict;
- "SideB," i.e., the opposition or second side to the conflict, including both states and non-state actors, depending on the type of conflict; and
- "SideA2nd" and "SideB2nd," i.e., all states that actively support side A or B by entering into the conflict with troops.³

For Further Reading

There is a large literature on the measurement of conflict and significant debate about the dates, intensities, and other specifics of many particular conflicts. Although all of these debates cannot be addressed here, readers may refer to the UCDP Database for further information on each conflict discussed here. A number of other data projects and sources on conflict also provide further information. The Stockholm International Peace Research Institute's (SIPRI) page on "Conflict Data Sets" provides one useful starting point to these resources.⁴

1 See also Nils Petter Gleditsch, Peter Wallensteen, Mikael Eriksson, Margareta Sollenberg, and Håvard Strand, "Armed Conflict 1946-2001: A New Dataset," *Journal of Peace Research*, XXXIX (2002), 615–637. The dataset and codebook are available at http://www.pcr.uu.se/research/UCDP/data_and_publications/datasets.htm. The last update for the dataset was 30 September 2007 (last accessed 20 July 2008).

2 See UCDP and PRIO, "UCDP/PRIO Armed Conflict Dataset Codebook (Version 4–2007)," 3.

3 See pp. 5–6. See also pp. 7–8.

4 <http://www.sipri.org/contents/conflict/conflictdatasets.html>

Government Involvement in Armed Conflict

UCDP/PRIO Armed Conflict Dataset (Version 4–2007)

	SCALED DATA:											
	RAW DATA:				Ranked				Scaled Overall 0–100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	3	5	0	0	45	48	1	1	50.0	16.7	100.0	100.0
Benin	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Botswana	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Burkina Faso	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Burundi	2	2	2	2	35	37	44	42	66.7	66.7	66.7	66.7
Cameroon	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Cape Verde	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Central African Republic	0	2	0	2	1	37	1	42	100.0	66.7	100.0	66.7
Chad	2	2	2	2	35	37	44	42	66.7	66.7	66.7	66.7
Comoros	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Congo	0	2	0	0	1	37	1	1	100.0	66.7	100.0	100.0
Congo, Democratic Rep.	2	0	0	0	35	1	1	1	66.7	100.0	100.0	100.0
Cote d'Ivoire	0	2	0	0	1	37	1	1	100.0	66.7	100.0	100.0
Djibouti	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Equatorial Guinea	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Eritrea	2	0	0	0	35	1	1	1	66.7	100.0	100.0	100.0
Ethiopia	6	4	4	5	48	47	48	48	0.0	33.3	33.3	16.7
Gabon	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Gambia	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Ghana	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Guinea	2	0	0	0	35	1	1	1	66.7	100.0	100.0	100.0
Guinea-Bissau	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Kenya	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Lesotho	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Liberia	2	2	0	0	35	37	1	1	66.7	66.7	100.0	100.0
Madagascar	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Malawi	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Mali	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Mauritania	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Mauritius	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Mozambique	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Namibia	2	1	0	0	35	36	1	1	66.7	83.3	100.0	100.0
Niger	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Nigeria	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Rwanda	3	2	0	0	45	37	1	1	50.0	66.7	100.0	100.0
Sao Tome and Principe	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Senegal	2	0	0	0	35	1	1	1	66.7	100.0	100.0	100.0
Seychelles	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Sierra Leone	2	0	0	0	35	1	1	1	66.7	100.0	100.0	100.0
Somalia	0	2	0	2	1	37	1	42	100.0	66.7	100.0	66.7
South Africa	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Sudan	2	2	3	2	35	37	47	42	66.7	66.7	50.0	66.7
Swaziland	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Tanzania	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Togo	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Uganda	3	2	2	2	45	37	44	42	50.0	66.7	66.7	66.7
Zambia	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Zimbabwe	1	0	0	0	34	1	1	1	83.3	100.0	100.0	100.0

Category: Safety and Security

Sub-Category: National Security

INDICATOR: NUMBER OF BATTLE-DEATHS IN ARMED CONFLICT

This indicator assesses the intensity of the violent conflicts in the country in 2006 and other years in terms of the total number of battle-related deaths in armed conflict. It includes battle-related deaths due to armed conflicts in which the government was involved, as well as those due to organized conflicts involving non-state actors.

Estimates for 2002 and 2005 are drawn from the Uppsala Conflict Data Program's "UCDP Battle-Deaths Dataset v.4.1, 2002–2005" and "UCDP Non-State Conflict Dataset v.1.1, 2002–2005."¹ Estimates for 2000 and 2006 are unavailable from these sources and are compiled instead by our team directly from the UCDP Database, which provides information about low, high, and best estimates for most conflicts of interest.

Our estimates show that four countries recorded battle deaths of more than 1,000 people in 2006: Chad, the Sudan, Somalia, and Ethiopia. Over two-hundred deaths were recorded in Uganda, 137 in Burundi, 124 in Senegal, 48 in Kenya, and 36 in the Democratic Republic of the Congo. It should be noted that these estimates tend to be conservative, and many estimates may be considerably higher. In addition, the number of civilian deaths due to one-sided violence should also be considered.

Technical Notes

In using the "UCDP Battle-Deaths Dataset v.4.1, 2002-2005" and "UCDP Non-State Conflict Dataset v.1.1, 2002–2005," the Index of African Governance includes the best estimate of the number of battle-related deaths ("bdBest") listed for the country given under "Location."²

Estimates for 2000 and 2006 are based on information provided in the UCDP Database. For most conflicts, the Database includes high and low estimates, along with best estimates, and the best estimate is used. However, estimates for 2000 tend to be less precise. When best estimates are unavailable, we generally take the most conservative estimate, using the minimum estimate in the given range.

¹ These data are also used in the Human Security Centre's *Human Security Brief 2006*.

² For further information on these datasets, see Joakim Kreutz and Kristine Eck, in collaboration with Peter Wallensteen, Lotta Harbom, Stina Högbladh, and Margareta Sollenberg, "UCDP Non-State Conflict Codebook (Version 1.0)," 28 September 2005, and UCDP, "Codebook for the UCDP Battle-Deaths Dataset: Definitions, Sources and Methods for the UCDP Battle-Deaths Estimates (Version 4.1) December 2006," 1. Both codebooks are available at http://www.pcr.uu.se/research/UCDP/data_and_publications/datasets.htm.

Number of Battle-Deaths

UCDP Battle-Deaths Dataset, UCDP Non-State Conflict Dataset, and UCDP Database

	SCALED DATA:											
	RAW DATA:				Ranked				Scaled Overall 0–100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	1000	662	0	0	44	44	1	1	68.6	79.2	100.0	100.0
Benin	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Botswana	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Burkina Faso	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Burundi	1000	460	285	137	44	40	44	43	68.6	85.6	91.1	95.7
Cameroon	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Cape Verde	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Central African Republic	0	159	0	30	1	37	1	39	100.0	95.0	100.0	99.1
Chad	25	418	100	1389	36	39	41	48	99.2	86.9	96.9	56.4
Comoros	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Congo	0	116	0	0	1	36	1	1	100.0	96.4	100.0	100.0
Congo, Democratic Rep.	2500	3184	0	36	48	48	1	40	21.5	0.0	100.0	98.9
Cote d'Ivoire	0	664	141	0	1	45	42	1	100.0	79.1	95.6	100.0
Djibouti	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Equatorial Guinea	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Eritrea	1000	0	0	0	44	1	1	1	68.6	100.0	100.0	100.0
Ethiopia	50	190	918	1010	40	38	48	45	98.4	94.0	71.2	68.3
Gabon	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Gambia	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Ghana	0	36	0	0	1	33	1	1	100.0	98.9	100.0	100.0
Guinea	150	0	0	0	43	1	1	1	95.3	100.0	100.0	100.0
Guinea-Bissau	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Kenya	0	0	68	48	1	1	40	41	100.0	100.0	97.9	98.5
Lesotho	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Liberia	61	500	0	0	42	42	1	1	98.1	84.3	100.0	100.0
Madagascar	0	79	0	0	1	35	1	1	100.0	97.5	100.0	100.0
Malawi	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Mali	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Mauritania	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Mauritius	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Mozambique	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Namibia	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Niger	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Nigeria	0	490	185	0	1	41	43	1	100.0	84.6	94.2	100.0
Rwanda	25	59	0	0	36	34	1	1	99.2	98.1	100.0	100.0
Sao Tome and Principe	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Senegal	54	0	0	124	41	1	1	42	98.3	100.0	100.0	96.1
Seychelles	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Sierra Leone	25	0	0	0	36	1	1	1	99.2	100.0	100.0	100.0
Somalia	0	644	370	1145	1	43	46	46	100.0	79.8	88.4	64.0
South Africa	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Sudan	2150	2345	321	1212	47	47	45	47	32.5	26.4	89.9	61.9
Swaziland	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Tanzania	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Togo	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Uganda	25	1032	693	221	36	46	47	44	99.2	67.6	78.2	93.1
Zambia	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Zimbabwe	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0

Category: Safety and Security

Sub-Category: National Security

INDICATOR: ONE-SIDED VIOLENCE

The third indicator under National Security assesses organized attacks on civilians, measured through the number of civilian deaths due to the use of armed force against them by a government or a formally organized group that result in at least twenty-five deaths. (For information on other human rights violations and attacks resulting in fewer deaths, readers should refer to the indicator on “Respect for Physical Integrity Rights,” under the category of “Participation and Human Rights.”)

Estimates for 2000, 2002, and 2005 are drawn from the “UCDP One-Sided Violence Dataset v.1.2 1989-2005.”¹ Estimates for 2006 were unavailable from this source and have been compiled by our team from the UCDP Database.

Our estimates for 2006 highlight the severity of the situation in the Sudan, with 750 civilian deaths due to one-sided violence. The situation in 2005 similarly placed the Sudan at the bottom of our list, with 704 recorded deaths. In 2002, the worst situation was recorded in Uganda, where there were 1,109 recorded deaths, followed by 877 in the Democratic Republic of the Congo. In 2006, more than 100 civilian deaths were recorded in the Central African Republic, 76 in the Democratic Republic of the Congo, 46 in Rwanda and Uganda, and 26 in Ethiopia.

Technical Notes

The One-Side Violence Dataset includes twelve variables. We use the following here:

- “Location,” which is “the name of the country where the actor responsible for the one-sided violence is based.”² Information is also available in the Dataset on whether the actor responsible for the one-sided violence was the government or a non-governmental organized group. We do not distinguish between the two here under the reasoning that governance is poor if there is one-sided violence, whether or not it is directly perpetrated by the government.
- “Fat_best,” which is the “UCDP best estimate of [civilian] deaths caused by one-sided violence.” Low and high estimates are also available in the Dataset. If reliable sources provide conflicting estimates, UCDP uses the lower estimate as the best estimate (p. 3).
- The year of the observation.

The data in the One-Sided Violence Dataset cover 1989 to 28 September 2005. We have used the best estimates available in the UCDP Database to provide estimates for 2006.

1 For further information, see Joakim Kreutz and Kristine Eck, in collaboration with Peter Wallensteen, Lotta Harbom, Stina Högbladh, and Margareta Sollenberg, “UCDP One-Sided Violence Codebook (Version 1.0 – September 28, 2005),” Uppsala Conflict Data Program, Department of Peace and Conflict Research, Uppsala University, available at http://www.pcr.uu.se/research/UCDP/our_data1.htm. See also Kristine Eck and Lisa Hultman, “One-Sided Violence Against Civilians in War: Insights from New Fatality Data,” *Journal of Peace Research*, XLIV (2007), 233–246; and the *Human Security Brief 2006* (Human Security Centre, University of British Columbia).

2 Violence is coded according to this location, but it is possible that some violence may also occur in neighboring countries and thus would not be captured here. Coding of the actual location of violence would make this indicator more precise for our purposes. The Codebook notes that “while some incidents may occur in an adjoining country, the majority of one-sided violence is reported in the location given” (p. 3).

Number of Civilian Deaths Due to One-Sided Violence

UCDP One-sided Violence Dataset and UCDP Database

	SCALED DATA:												
	RAW DATA:				Ranked				Scaled Overall 0-100				
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006	
Angola	267	57	0	0	48	42	1	1	75.9	94.9	100.0	100.0	
Benin	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0	
Botswana	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0	
Burkina Faso	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0	
Burundi	260	385	68	0	47	45	44	1	76.6	65.3	93.9	100.0	
Cameroon	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0	
Cape Verde	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0	
Central African Republic	0	0	0	108	1	1	1	47	100.0	100.0	100.0	90.3	
Chad	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0	
Comoros	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0	
Congo	0	55	0	0	1	41	1	1	100.0	95.0	100.0	100.0	
Congo, Democratic Rep.	85	877	92	76	44	47	45	46	92.3	20.9	91.7	93.1	
Cote d'Ivoire	170	561	0	0	46	46	1	1	84.7	49.4	100.0	100.0	
Djibouti	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0	
Equatorial Guinea	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0	
Eritrea	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0	
Ethiopia	0	226	0	26	1	44	1	43	100.0	79.6	100.0	97.7	
Gabon	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0	
Gambia	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0	
Ghana	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0	
Guinea	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0	
Guinea-Bissau	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0	
Kenya	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0	
Lesotho	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0	
Liberia	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0	
Madagascar	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0	
Malawi	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0	
Mali	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0	
Mauritania	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0	
Mauritius	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0	
Mozambique	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0	
Namibia	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0	
Niger	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0	
Nigeria	0	45	32	0	1	40	43	1	100.0	95.9	97.1	100.0	
Rwanda	0	0	92	46	1	1	45	44	100.0	100.0	91.7	95.9	
Sao Tome and Principe	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0	
Senegal	0	33	0	0	1	39	1	1	100.0	97.0	100.0	100.0	
Seychelles	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0	
Sierra Leone	36	0	0	0	43	1	1	1	96.8	100.0	100.0	100.0	
Somalia	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0	
South Africa	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0	
Sudan	0	99	704	750	1	43	48	48	100.0	91.1	36.5	32.4	
Swaziland	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0	
Tanzania	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0	
Togo	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0	
Uganda	123	1,109	304	46	45	48	47	44	88.9	0.0	72.6	95.9	
Zambia	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0	
Zimbabwe	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0	

Category: Safety and Security

Sub-Category: National Security

INDICATOR: REFUGEES FROM EACH COUNTRY

Conflicts often involve the displacement of populations. This indicator and the next look at displacement, both within and outside each country. This indicator considers the number of refugees and asylum seekers leaving a country, per 100,000 people. Asylum seekers are those who have applied for refugee or asylum status, but whose applications are still under consideration. Thus, like many other sources, the Index of African Governance counts refugees and asylum seekers together.

Numbers are drawn from the UNHCR's Statistical Online Population Database and the UNHCR *Statistical Yearbook 2006: Trends in Displacement, Protection and Solutions*.¹ Data on the size of the population for each country in each year are from the World Bank's World Development Indicators (WDI).²

Compared to other world regions, sub-Saharan Africa has had the highest number of refugees and asylum seekers. Over the years of the Index, however, the total number of refugees and asylum seekers from countries in the region has declined from 3.9 million in 2000 to 3.7 million in 2002 to 3.4 million in 2005 and 3.2 million in 2006. Countries that send the highest number of refugees and asylum seekers abroad (in absolute terms) include the Sudan (highest in 2005 and 2006), Burundi (highest in 2000 and 2002), and Somalia. In 2005 and 2006, over 700,000 refugees and asylum seekers abroad were Sudanese. Scaled by population, Somalia, Liberia, and Eritrea also stand out as having the highest IDP rates over the years of the Index—some 6 to 10 percent of their populations (5,755 to 10,298 per 100,000 people).³

Dramatic changes in displacement over time are also evident in some countries, suggesting gradual improvements or declines in conflict situations or, in some cases, the effects of specific crises. Over the years of the Index, the number of refugees and asylum seekers has declined in particular in Angola, Burundi, Eritrea, Liberia, and Sierra Leone.

The UNHCR is the standard international source for data on refugees, but a number of additional organizations and projects also follow refugee and asylum issues and provide other useful starting points for further research. Another source of cross-national data is the U.S. Committee on Refugees and Immigrants' (USCRI) *World Refugee Survey*. A useful resource guide is provided by the United Nations Dag Hammarskjöld Library webpage on World Refugee Day.⁴ Africa/World Refugee Day is commemorated on June 20 of each year. Key legal documents include the United Nations Convention relating to the Status of Refugees, adopted on 28 July 1951; the 1967 Protocol Relating to the Status of Refugees; and the Organization of African Unity's 1969 Convention Governing the Specific Aspects of Refugee Problems in Africa.

Technical Notes

The datasheet for this indicator provides information on the total number of refugees and asylum seekers from each country in each year, as well as the number per 100,000 people. The latter figures are used to calculate the scaled score used in the Index of African Governance.

1 See www.unhcr.org/statistics.html.

2 Last accessed 13 May 2008.

3 In 2006, almost 6 percent of Somalis were refugees or asylum seekers, the highest rate in the region. In 2002 and 2005, Liberia had the highest rates, 8.8 and 6.9 percent, respectively. In 2000, Eritrea had the highest rate at 10.3 percent.

4 See www.un.org/Depts/dhl/refugee/.

The UNHCR provides the following definitions used in its database:⁵

Refugees include persons recognized under the *1951 Convention relating to the Status of Refugees*, its 1967 Protocol, the *1969 OAU Convention Governing the Specific Aspects of Refugee Problems in Africa*, those recognized in accordance with the UNHCR Statute, persons granted complementary forms of protection and persons granted temporary protection....

Asylum-seekers are persons who have applied for asylum or refugee status, but who have not yet received a final decision on their application. A distinction should be made between the number of asylum-seekers who have submitted a request *during a certain period* (“asylum applications submitted”; also known as “flow”) and the number of asylum-seekers whose asylum request has not yet been decided *at a certain date* (“backlog of undecided or pending cases”; also known as “stock”). Only asylum-seekers whose cases are pending at the end of the year are included in UNHCR’s total population of concern.

UNHCR data are based on information provided by government agencies, UNHCR field offices, and NGOs. Further information is provided in chapter 1 of the UNHCR *Statistical Yearbook 2006*.

Some UNHCR sources provide estimates of refugees and asylum seekers to multiple decimal places. The Index rounds all of these numbers to the nearest whole number before calculating rates per 100,000 and Index scores.

5 From UNHCR, “Sources, Methods and Data Considerations,” chapter 1 of *Statistical Yearbook 2006: Trends in Displacement, Protection and Solutions* (Geneva, 2007), 16. Additional details are provided in this chapter.

Refugees and Asylum Seekers Originating From Each Country

UNHCR (and WDI population data)

	RAW DATA:								SCALED DATA:			
	Total Number				Per 100,000 People				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	439,253	449,703	224,179	208,082	3,153.3	3,051.5	1,392.8	1,256.8	69.4	70.4	86.5	87.8
Benin	198	463	683	375	2.7	6.0	8.0	4.3	100.0	99.9	99.9	100.0
Botswana	5	16	15	44	0.3	0.9	0.8	2.4	100.0	100.0	100.0	100.0
Burkina Faso	377	1,157	818	579	3.2	9.1	5.9	4.0	100.0	99.9	99.9	100.0
Burundi	571,714	582,002	446,974	402,068	8,573.9	8,256.4	5,687.6	4,919.4	16.7	19.8	44.8	52.2
Cameroon	3,557	8,074	13,961	13,766	22.4	48.6	78.5	75.7	99.8	99.5	99.2	99.3
Cape Verde	16	21	19	50	3.6	4.4	3.7	9.6	100.0	100.0	100.0	99.9
Central African Republic	192	26,045	44,733	73,797	5.0	651.5	1,067.2	1,730.4	100.0	93.7	89.6	83.2
Chad	57,393	49,786	51,513	39,731	678.0	546.0	507.7	379.5	93.4	94.7	95.1	96.3
Comoros	122	80	577	82	22.6	14.2	96.1	13.4	99.8	99.9	99.1	99.9
Congo	31,726	35,031	32,612	26,508	990.6	1,040.4	903.4	718.5	90.4	89.9	91.2	93.0
Congo, Democratic Rep.	391,563	465,446	486,891	433,667	772.5	869.4	828.9	715.1	92.5	91.6	92.0	93.1
Cote d'Ivoire	1,460	25,439	24,694	32,698	8.6	143.8	132.9	172.9	99.9	98.6	98.7	98.3
Djibouti	2,057	586	722	599	281.9	76.8	89.8	73.2	97.3	99.3	99.1	99.3
Equatorial Guinea	551	619	536	493	128.0	137.2	110.7	99.5	98.8	98.7	98.9	99.0
Eritrea	379,424	344,018	148,100	198,801	10,298.4	8,601.7	3,271.7	4,236.9	0.0	16.5	68.2	58.9
Ethiopia	80,965	70,205	81,696	90,715	123.1	100.9	108.7	117.6	98.8	99.0	98.9	98.9
Gabon	43	87	138	135	3.6	7.1	10.7	10.3	100.0	99.9	99.9	99.9
Gambia	1,035	1,149	2,345	2,278	74.8	77.8	145.0	137.0	99.3	99.2	98.6	98.7
Ghana	15,760	16,844	20,784	11,107	78.2	79.9	92.2	48.3	99.2	99.2	99.1	99.5
Guinea	4,023	7,244	9,097	9,508	49.1	85.1	101.1	103.6	99.5	99.2	99.0	99.0
Guinea-Bissau	1,573	1,255	1,300	1,313	114.8	86.2	81.4	79.8	98.9	99.2	99.2	99.2
Kenya	3,237	13,276	16,084	6,446	10.4	40.3	45.2	17.6	99.9	99.6	99.6	99.8
Lesotho	5	9	13	14	0.3	0.5	0.7	0.7	100.0	100.0	100.0	100.0
Liberia	271,138	285,993	237,139	165,565	8,828.8	8,807.9	6,890.0	4,626.1	14.3	14.5	33.1	55.1
Madagascar	69	70	222	285	0.4	0.4	1.2	1.5	100.0	100.0	100.0	100.0
Malawi	40	199	3,950	159	0.3	1.6	29.9	1.2	100.0	100.0	99.7	100.0
Mali	554	848	873	1,024	5.5	8.0	7.5	8.6	99.9	99.9	99.9	99.9
Mauritania	31,540	33,116	33,955	35,239	1,229.1	1,217.1	1,145.9	1,157.8	88.1	88.2	88.9	88.8
Mauritius	46	68	45	102	3.9	5.6	3.6	8.1	100.0	99.9	100.0	99.9
Mozambique	36	179	475	246	0.2	0.9	2.3	1.2	100.0	100.0	100.0	100.0
Namibia	2,316	1,485	1,267	1,223	123.2	76.5	62.7	59.8	98.8	99.3	99.4	99.4
Niger	746	1,398	1,246	1,299	6.7	11.7	9.4	9.5	99.9	99.9	99.9	99.9
Nigeria	9,207	32,237	36,167	21,620	7.4	24.5	25.6	14.9	99.9	99.8	99.8	99.9
Rwanda	143,867	86,301	116,144	101,597	1,759.6	985.0	1,257.8	1,073.5	82.9	90.4	87.8	89.6
Sao Tome and Principe	32	39	24	32	22.8	26.9	15.7	20.6	99.8	99.7	99.8	99.8
Senegal	11,999	12,860	10,521	16,405	116.1	118.1	89.4	135.9	98.9	98.9	99.1	98.7
Seychelles	35	72	50	69	43.1	86.0	60.3	81.6	99.6	99.2	99.4	99.2
Sierra Leone	409,683	148,950	46,427	48,504	9,060.9	3,024.9	831.1	844.6	12.0	70.6	91.9	91.8
Somalia	487,634	446,276	426,020	486,060	6,911.8	5,955.1	5,197.7	5,755.3	32.9	42.2	49.5	44.1
South Africa	280	463	433	670	0.6	1.0	0.9	1.4	100.0	100.0	100.0	100.0
Sudan	513,475	522,893	707,108	702,965	1,539.7	1,504.6	1,916.3	1,864.3	85.1	85.4	81.4	81.9
Swaziland	20	24	18	27	1.9	2.2	1.6	2.4	100.0	100.0	100.0	100.0
Tanzania	1,121	3,080	6,799	1,892	3.3	8.6	17.7	4.8	100.0	99.9	99.8	100.0
Togo	5,295	13,234	58,586	33,927	98.0	230.4	939.1	529.2	99.1	97.8	90.9	94.9
Uganda	33,478	42,468	38,538	23,100	135.6	161.6	133.1	77.3	98.7	98.4	98.7	99.3
Zambia	221	269	632	270	2.1	2.5	5.5	2.3	100.0	100.0	99.9	100.0
Zimbabwe	318	5,191	28,577	13,997	2.5	40.4	217.8	105.8	100.0	99.6	97.9	99.0

Category: Safety and Security

Sub-Category: National Security

INDICATOR: INTERNALLY DISPLACED PERSONS (IDPS)

The datasheet for this indicator provides information on the total number of internally displaced persons (IDPs) in each country in each year, as well as the number per 100,000 people. The latter is used in the scaled score for this indicator in the Index of African Governance.

The “Guiding Principles on Internal Displacement,” which were presented to the UN Commission on Human Rights in 1998, define IDPs as “persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalised violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognised State border.”¹

Data on IDPs are compiled from estimates and reports provided through the “IDP Database” of the Internal Displacement Monitoring Centre (IDMC) and from the U.S. Committee for Refugees and Immigrants’ (USCRI) *World Refugee Survey* (2001 to 2008 editions).² In general, the reports included in the IDP Database are either reports compiled by IDMC or UN sources. Information is supplemented with reports from the country databases of the UN’s ReliefWeb for countries that are no longer actively monitored by IDMC.³ (The UNHCR’s Statistical Online Population Database is not used for IDP numbers because it includes only IDPs who are protected or assisted by the UNHCR. It refers readers to the Internal Displacement Monitoring Centre for comprehensive statistics on IDPs.) Data on the size of the population for each country in each year are from the World Bank’s World Development Indicators (WDI).⁴

In 2006, there were an estimated 11.7 million IDPs in sub-Saharan Africa—about three and a half times as many IDPs as refugees from countries in the region. About 5.8 million of these IDPs were in the Sudan. After the Sudan, 1.6 million were in Uganda and 1.1 million in the Democratic Republic of the Congo. Scaled by population, more than 15 percent of the total Sudanese population was estimated to be internally displaced in 2006, and 4 percent or more in Uganda, Somalia, Zimbabwe, and Côte d’Ivoire.

Technical Notes

A year-end estimate (rather than a mid-year estimate) is used in all cases if available.

Most figures for 2006 are from the IDMC’s IDP Database. Most figures for 2000, 2002, and 2005 are from the *World Refugee Survey*, which previously had the most complete data over time. Estimates were also updated and checked against the IDP Database as it provides more up-to-date and detailed information. When estimates for 2000, 2002, and 2005 differ between the *World Refugee Survey* and IDP Database, the *World Refugee Survey* figure has been used, except as noted below.

Population figures are drawn from the World Bank’s World Development Indicators (WDI) 2008.⁵

Detailed notes about the sources of estimates are available upon request. In cases where the *World Refugee Survey* or IDP Database gives a range estimate for the number of IDPs, the average of this range is generally used. Countries for which there is no information on IDPs in the *World Refugee Survey*, IDP Database, and UNHCR’s Statistical Online Population Database are generally estimated to have no IDPs.

1 From “Introduction,” para. 2, as cited on the website of the Internal-Displacement Monitoring Centre (IDMC) at [http://www.internal-displacement.org/8025708F004D404D/\(httpPages\)/CC32D8C34EF93C88802570F800517610?OpenDocument](http://www.internal-displacement.org/8025708F004D404D/(httpPages)/CC32D8C34EF93C88802570F800517610?OpenDocument).

2 See <http://www.refugees.org>, and <http://www.internal-displacement.org/>.

3 See <http://www.reliefweb.int>.

4 Last accessed 13 May 2008.

5 Last accessed 13 May 2008.

Notes on selected countries:

For Chad, our estimate for 2006 is from the IDMC's note, "Almost 113,000 internally displaced people (December 2006)." The Norwegian Refugee Council and IDMC's report, "Internally displaced in Chad: Trapped between civil conflict and Sudan's Darfur crisis" (July 2007), notes further that: "Although humanitarian organisations agree that the number of IDPs has been increasing continuously since April 2006, there is no common understanding of the current scope of the displacement situation, and the estimates of the number of IDPs differ" (p. 11).

For the Democratic Republic of the Congo, our estimate for 2006 is from the IDMC's note, "Total estimate of IDPs drop to 1.1 million in November, compared to 1.48 million in August (end 2006)."

For Eritrea, our 2006 estimate is for December 2006 from the OCHA Regional Office for Central and East Africa, *Displaced Populations Report* (January–June 2007, issue 1), p. 3.

For Guinea, estimates vary widely. The *World Refugee Survey* estimate for 2005 is 82,000, which is equivalent to the number counted in a 2002 survey conducted by the Guinean government and the United Nations Population Fund (UNFPA). The *World Refugee Survey 2003* estimate is 20,000. The IDMC estimates 19,000 IDPs as of December 2005 based on a 2005 study conducted by OCHA and regional authorities. We use this estimate for 2005 and 2006. For further information, see Government of Guinea and United Nations, "Réflexion sur un plan d'action pour la réhabilitation, la réintégration et la réinsertion des populations affectées par les conflits," 31 March 2006, available at <http://www.internal-displacement.org>. The *World Refugee Survey 2005* also notes that approximately 40,000 IDPs returned home in 2004.

For Guinea-Bissau in 2000, the *World Refugee Survey 2001* suggests no IDPs, but conflict in 1998–1999 suggests that there were some. The IDMC also cites USCR's end of 2000 estimate of 50,000 IDPs (see Global IDP Database, "Profile of Internal Displacement: Guinea-Bissau," a compilation of the information available in the Global IDP Database of the Norwegian Refugee Council as of 10 June 2002). Page three of this report indicates that "USCR reported that some 50,000 persons were still internally displaced in Guinea-Bissau at the end of 2000, but that for the most part these IDPs were able to return home over the course of the year (USCR, 19 June 2001)." Thus, we estimate 50,000 IDPs for 2000. The IDMC stopped actively monitoring Guinea-Bissau in June 2002, and lists the number of IDPs as "indeterminate." The UNHCR's "West Africa – Displaced Populations – November 2006" provides no estimate for the country. Given the available information, we give a rough estimate of zero IDPs for 2002, 2005, and 2006.

For Kenya, our 2006 estimate is for December 2006 from the OCHA Regional Office for Central and East Africa, *Displaced Populations Report* (January–June 2007, issue 1), p. 3. The estimate there provided is a "protracted estimate" of 250,000 to 300,000. We use 275,000 as the midpoint of this range. For further discussion, see IDMC's report, "I am a Refugee in My Own Country': Conflict-Induced Internal Displacement in Kenya" (19 December 2006).

For Liberia, our 2005 estimate of 13,000 is based on a multi-agency assessment carried out during April–May 2006. The IDP returns process in Liberia ended in April 2006, suggesting that 13,000 may be a low estimate of the number of IDPs at the end of 2005. For further information, see Internal Displacement Monitoring Centre, Norwegian Refugee Council, "Liberia: Key Challenge is Ensuring Sustainability of IDP Return – A Profile of the Internal Displacement Situation," 3 August 2006 (see especially pp. 46–47). Our 2006 estimate of 5,500 is from OCHA and UNHCR, "West Africa – Displaced Populations – November 2006" (map), which lists 5,494 displaced.

For Nigeria in 2006, data are poor. For instance, the IDMC's report "NIGERIA: Heightened risk of violence and displacement ahead of 2007 elections – A profile of the internal displacement situation" (21 September 2006) notes that: "According to the Nigerian presidential adviser on Migration and Humanitarian Affairs, in April 2006, estimates on the number of IDPs in Nigeria varied from 500,000 to millions. The 2005 UN Humanitarian Appeal (CAP) for West Africa put the total number of IDPs in Nigeria at 200,000 (as of November 2004)—although this too must be based on guesswork. It is therefore safe to say there is an undetermined number of IDPs in Nigeria." (p. 69). The UNHCR's note on "West Africa – Displaced Populations – November 2006" provided no estimate. Some estimates are available for later in 2007, but these are difficult to interpret because there was displacement tied to elections in April. We thus take the lowest estimate here for April 2006, which is 500,000.

For Rwanda, the number of IDPs is estimated at zero for 2002, 2005, and 2006, but there are important questions about who should be considered an IDP (see Global IDP Project, “Ensuring Durable Solutions For Rwanda’s Displaced People: A Chapter Closed Too Early,” 8 July 2005). For 2000, we use the estimate of 150,000 from the *World Refugee Survey 2001*, which reports that: “Approximately 150,000 Rwandans were internally displaced at the end of 2000, although estimates varied widely because of different definitions about which populations qualified as displaced.” The IDMC estimate is higher. The IDMC’s report, “Ensuring Durable Solutions for Rwanda’s Displaced People” notes that:

In 1998 and 1999 the Rwandan government and the UN recognised around 650,000 people in makeshift camps as internally displaced (IDPs) in the north-western prefectures of Ruhengeri and Gisenyi. These IDPs—most of them Hutus—were uprooted when an insurgency in the two provinces was put down by the Tutsi-dominated government in 1997-1998. In December 2000, the UN ceased to consider them as such, arguing that ‘governmental and international efforts to stabilise the situation through durable solutions have advanced beyond the threshold of what still could be called internal displacement.’ These efforts consisted largely of the implementation of the National Habitat Policy, or “villagisation” policy, of December 1996 which provides for the relocation of all Rwandans living in scattered homesteads into government-created villages, including those displaced in 1997-1998.⁶

For Senegal, 2000 and 2002 figures are from USCRI. Estimates for 2005 and 2006 are more problematic. The IDMC’s most recent estimate was 10,000 to 70,000. The UNHCR’s “West Africa – Displaced Populations – November 2006” note estimates 64,000 IDPs for end-2006. However, this figure appears to be based on a study done in 2003. The *World Refugee Survey*’s estimate for 2003 was 17,000.

According to the IDMC’s report, “Senegal: New Fighting Threatens Return of Remaining IDPs” (25 September 2006):

Reports on the number of people displaced by conflict in Casamance have always been scarce. Most of the displaced appear to stay with relatives, thus making it difficult to identify them. In addition, the temporary nature of the displacement further complicated the compilation of reliable statistics (IRIN, 6 March 2003; Correspondence with WFP, 19 September 2006). The overall number of displaced varies according to the source. According to a study done in 2003, there were in total 64,000 internally displaced persons in Senegal; 47,000 were in the district of Ziguinchor and 17,000 in the district of Kolda (WFP, 27 August 2004, p. 5). Other sources cite the number of 50,000 people who had fled their homes since the conflict broke out in 1982 (IRIN, 3 January 2006). With both the peace agreement signed on 30 December 2004 and the continuous improvement of the security situation throughout, it was estimated that more than 65 percent of the people displaced had returned and as of December 2005 a further 12,400 were still expected to return (Correspondence with UNDP, 7 February 2006; IRIN, 24 March 2006, 15 June 2006) (p. 3).

The estimate for 2005 was thus roughly calculated as 35 percent of 64,000, or 22,400. Renewed fighting in October 2006 reportedly displaced another 10,000 people. Thus, the 2006 estimate was calculated roughly as 32,400. The 2000 and 2002 *World Refugee Survey* estimates are also similar to those for 2002 published by the IDMC (one-third of 18,000) (see Global IDP Database, “Profile of Internal Displacement: Senegal,” a compilation of the information available in the Global IDP Database of the Norwegian Refugee Council as of 12 June 2002).

For Sierra Leone in 2002, the *World Refugee Survey* estimates zero IDPs (down from 600,000 in 2001). This is consistent with official estimates. The estimate of 15,000 used here is based on NGO estimates reported by IDMC of 10,000–20,000 “unofficial” IDPs at the end of 2002. This estimate seems to be more consistent with estimates of 12,800 official IDPs in October 2002, according to the UN OCHA (31 October 2002). See Global IDP Database, “Profile of Internal Displacement: Sierra Leone,” a compilation of the information available in the Global IDP Database of the Norwegian Refugee Council as of 3 April 2003, p. 39.

⁶ See p. 4.

For the Sudan, our 2006 estimate is for December 2006 from the OCHA Regional Office for Central and East Africa, *Displaced Populations Report* (January–June 2007, issue 1), p. 3. OCHA lists 5,790,235 displaced, which we round to 5,790,200.

For Togo in 2005, the estimate of 3,000 is based on IDMC’s 29 September 2005 web note, “Thousands of Internally Displaced Still Afraid to Return Home,” which notes that: “While the majority of the 10,000–12,000 people internally displaced by the political crisis that erupted in Togo in April 2005 have returned to their homes—with no more than 3,000 still displaced—the ongoing shaky political and security situation continues to impede full-scale return (OCHA, 20 September 2005).”

For Uganda, our 2006 estimate is for December 2006 from the OCHA Regional Office for Central and East Africa, *Displaced Populations Report* (January–June 2007, issue 1), p. 3.

For Zimbabwe, the estimate is based on the *World Refugee Survey 2001* note that: “An estimated 10,000 Zimbabweans fled their homes during the year because of political violence and intimidation prior to the country’s parliamentary elections in June. Most of the violence and displacement reportedly occurred in rural areas and small villages 25 miles (40 km) east of Harare and in the Matabeleland region of western Zimbabwe. More than 30 people died in the pre-election violence, and 500 homes were damaged or destroyed. Some uprooted families quickly returned home.”

Internally Displaced Persons (IDPs)

USCRI's World Refugee Survey, IDMC's IDP Database, and ReliefWeb (and WDI population data)

	RAW DATA:								SCALED DATA:			
	Total Number				Per 100,000 People				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	2,450,000	2,750,000	62,000	0	17,587.9	18,660.3	385.2	0.0	5.7	0.0	97.9	100.0
Benin	0	0	0	0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
Botswana	0	0	0	0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
Burkina Faso	0	0	0	0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
Burundi	600,000	600,000	117,000	100,000	8,998.1	8,511.7	1,488.8	1,223.5	51.8	54.4	92.0	93.4
Cameroon	0	0	0	0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
Cape Verde	0	0	0	0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
Central African Republic	0	10,000	200,000	147,000	0.0	250.2	4,771.6	3,446.8	100.0	98.7	74.4	81.5
Chad	0	0	0	112,700	0.0	0.0	0.0	1,076.6	100.0	100.0	100.0	94.2
Comoros	0	0	0	0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
Congo	30,000	100,000	48,000	7,800	936.7	2,969.9	1,329.7	211.4	95.0	84.1	92.9	98.9
Congo, Democratic Rep.	1,800,000	2,000,000	1,664,000	1,100,000	3,551.1	3,735.8	2,832.8	1,813.9	81.0	80.0	84.8	90.3
Cote d'Ivoire	0	600,000	500,000	750,000	0.0	3,391.5	2,690.4	3,965.2	100.0	81.8	85.6	78.8
Djibouti	0	0	0	0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
Equatorial Guinea	0	0	0	0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
Eritrea	310,000	75,000	45,500	43,000	8,414.1	1,875.3	1,005.1	916.4	54.9	90.0	94.6	95.1
Ethiopia	280,000	90,000	200,000	200,000	425.5	129.3	266.1	259.2	97.7	99.3	98.6	98.6
Gabon	0	0	0	0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
Gambia	0	0	0	0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
Ghana	0	0	0	0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
Guinea	60,000	82,000	19,000	19,000	731.5	963.2	211.1	206.9	96.1	94.8	98.9	98.9
Guinea-Bissau	50,000	0	0	0	3,648.3	0.0	0.0	0.0	80.4	100.0	100.0	100.0
Kenya	100,000	230,000	381,900	275,000	320.0	698.8	1,072.8	752.3	98.3	96.3	94.3	96.0
Lesotho	0	0	0	0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
Liberia	20,000	125,000	13,000	5,500	651.2	3,849.7	377.7	153.7	96.5	79.4	98.0	99.2
Madagascar	0	0	0	0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
Malawi	0	0	0	0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
Mali	0	0	0	0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
Mauritania	0	0	0	0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
Mauritius	0	0	0	0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
Mozambique	0	0	0	0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
Namibia	0	0	0	0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
Niger	0	0	0	0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
Nigeria	70,000	50,000	200,000	500,000	56.1	38.1	141.5	345.5	99.7	99.8	99.2	98.1
Rwanda	150,000	0	0	0	1,834.6	0.0	0.0	0.0	90.2	100.0	100.0	100.0
Sao Tome and Principe	0	0	0	0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
Senegal	5,000	5,000	22,400	32,400	48.4	45.9	190.3	268.4	99.7	99.8	99.0	98.6
Seychelles	0	0	0	0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
Sierra Leone	750,000	15,000	500	0	16,587.6	304.6	9.0	0.0	11.1	98.4	100.0	100.0
Somalia	300,000	350,000	370,000	400,000	4,252.3	4,670.4	4,514.2	4,736.3	77.2	75.0	75.8	74.6
South Africa	0	0	0	0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
Sudan	4,000,000	4,000,000	5,335,000	5,790,200	11,994.5	11,510.0	14,458.1	15,355.6	35.7	38.3	22.5	17.7
Swaziland	0	0	0	0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
Tanzania	0	0	0	0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
Togo	0	0	3,000	1,500	0.0	0.0	48.1	23.4	100.0	100.0	99.7	99.9
Uganda	500,000	650,000	1,740,500	1,600,000	2,025.1	2,472.9	6,012.7	5,351.4	89.1	86.7	67.8	71.3
Zambia	0	0	0	0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
Zimbabwe	10,000	150,000	570,000	570,000	79.0	1,166.5	4,344.6	4,309.0	99.6	93.7	76.7	76.9

Category: Safety and Security

Sub-Category: National Security

INDICATOR: ACCESS TO SMALL ARMS AND LIGHT WEAPONS

This last indicator in the National Security sub-category assesses the ease of access to small arms and light weapons on a 1 to 5 scale, where 1 is least accessible. Scores are based on the Global Peace Index 2008, compiled by Economist Intelligence Unit (EIU) analysts. It is supplemented with our coding, using the same scale, for eighteen countries not included in the Global Peace Index.¹

Scores for this indicator in the Global Peace Index are available only for a snapshot in time. In the absence of other data, the Index of African Governance uses this estimate for each year, 2000, 2002, 2005, and 2006. This is the only source that we are aware of that currently provides estimates to assess “access” that are broadly comparable across countries.

Although this indicator is scored on a 1 to 5 scale for all countries by the Global Peace Index 2008, the actual range of values for the countries in the Index of African Governance is 3 to 5, underscoring the high availability of small arms in sub-Saharan Africa.² Countries with the highest “ease of access” include Burundi, the Central African Republic, the Democratic Republic of the Congo, Guinea, Guinea-Bissau, Kenya, Liberia, Mauritania, Nigeria, Sierra Leone, Somalia, and the Sudan.

Technical Notes

The Global Peace Index 2008 provides the following description of this indicator and the 1 to 5 scale:

A qualitative assessment of the accessibility of small arms and light weapons (SALW) is ranked 1-5 (very low–very high) by EIU analysts. Very limited access is scored if the country has developed policy instruments and best practices, such as firearm licences, strengthening of export controls, codes of conduct, firearms or ammunition marking. Very easy access, on the contrary, is characterized by the lack of regulation of civilian possession, ownership, storage, carriage and use of firearms.

Data on the following countries are available from the Global Peace Index 2008: Angola, Botswana, Burkina Faso, Cameroon, the Central African Republic, Chad, Congo, the Democratic Republic of the Congo, Côte d’Ivoire, Equatorial Guinea, Ethiopia, Gabon, Ghana, Kenya, Madagascar, Malawi, Mali, Mauritania, Mozambique, Namibia, Nigeria, Rwanda, Senegal, Somalia, South Africa, the Sudan, Tanzania, Uganda, Zambia, and Zimbabwe. The Index of African Governance uses all of these scores, with one exception. For Rwanda, our research suggests that a score of “3” rather than “2” is appropriate and we have revised this score accordingly for the Index of African Governance. A score of “2” would give Rwanda the best score of all countries in the Index, suggesting that small arms are less accessible there than in any other country in sub-Saharan Africa. Although this does not appear to be accurate, we note Rwanda’s efforts to reduce the proliferation of small arms, in particular, through its National Focal Point on Small Arms and Light Weapons, which was created after the *Nairobi Declaration on the Problem of Illicit Small Arms and Light Weapons in the Great Lakes Region and the Horn of Africa* (signed on 15 March 2000).

For other countries not included in the Global Peace Index 2008, we provide scores following the GPI’s scale. Our scores are given in italics in the datasheet.

Civilian Firearms

For cross-national comparisons, another useful source of information beyond the data used directly in the 2008 Index of African Governance is the Small Arms Survey and Aaron Karp’s estimates on civilian firearms circa 2006. As the *Small Arms Survey 2007* notes, civilians own about 75 percent of firearms worldwide.³ Governments and civil society in a number of

1 See <http://www.visionofhumanity.com/>. The Global Peace Index also refers to this indicator as “ease of access to weapons of minor destruction.”

2 The Global Peace Index gives Rwanda a score of “2” for 2008. We have revised this score to “3.” See further discussion below.

3 The study finds that “Civilians own approximately 650 million firearms worldwide, roughly 75 per cent of the known total. Civilians in the United States own some 270 million of these.” Aaron Karp, “Completing the Count Civilian Firearms,” *Small Arms Survey 2007: Guns and the City* (Geneva, 2007), 39.

countries are concerned about the risk of gun violence and have taken steps to address the problem. Readers should refer to Karp's "Completing the Count: Civilian Firearms," in the *Small Arms Survey 2007: Guns and the City*, for a thorough description and discussion of measurement issues.

Nevertheless, the link between gun ownership and gun violence is hotly contested, both in popular debate and in scholarly research, as the *Small Arms Survey* notes.⁴ For our purposes, the use of these data in the Index of African Governance is also problematic because of our focus on "outcomes," rather than "inputs." Thus, we do not use these estimates directly in the Index, but instead present them below as an additional indicator for comparative purposes, along with the scores we use on access to small arms and light weapons. Countries are listed in order of highest to lowest estimated civilian firearms ownership.

This simple comparison suggests that there is little relationship between civilian firearms holdings and the ease of access to small arms and light weapons. For instance, the countries with the highest estimated civilian firearms holdings (Angola, Equatorial Guinea, South Africa, Mauritius, and Namibia) in fact are not estimated by the Global Peace Index and the Index of African Governance to have the highest ease of access to small arms and light weapons. This comparison suggests, above all, that further comparative research would be useful.

	2008 Small Arms Scores (GPI 2008 and Index of African Governance) ⁵	Civilian Firearms circa 2006 (from the Small Arms Survey and Aaron Karp)
Angola	3	20.7%
Equatorial Guinea	4	14.7%
South Africa	4	13.1%
Mauritius	3	13.0%
Namibia	3	13.0%
Somalia	5	8.3%
Gabon	3	7.7%
Sudan	5	6.0%
Seychelles	3	5.5%
Mozambique	4	5.3%
Botswana	3	5.1%
Zimbabwe	4	3.1%
Burundi	5	2.8%
Swaziland	5	2.5%
Djibouti	4	2.4%
Côte d'Ivoire	4	2.3%
Kenya	5	2.3%
Zambia	4	2.2%
Cameroon	4	2.1%
Cape Verde	3	2.0%
Lesotho	3	1.8%
Senegal	4	1.7%
Guinea-Bissau	5	1.7%
Comoros	4	1.6%
Tanzania	3	1.5%
Congo, Democratic Rep.	5	1.5%
Benin	4	1.5%
Nigeria	5	1.5%
Liberia	5	1.5%

4 This debate is particularly heated in the U.S., the country with—by far—the highest civilian rates of gun ownership. The *Small Arms Survey 2007* estimates that there are 83 to 97 firearms per 100 people in the U.S. See also Small Arms Survey (principal author: Aaron Karp), "Completing the Count."

5 Numbers in italics are Index of African Governance estimates.

	2008 Small Arms Scores (GPI 2008 and Index of African Governance) ⁵	Civilian Firearms circa 2006 (from the Small Arms Survey and Aaron Karp)
Uganda	3	1.5%
Guinea	5	1.3%
Mauritania	5	1.1%
Mali	4	1.1%
Togo	4	1.0%
Burkina Faso	4	1.0%
Central African Republic	5	0.9%
Madagascar	4	0.9%
Chad	4	0.9%
Malawi	4	0.8%
Gambia	4	0.6%
Niger	4	0.6%
Rwanda	3	0.6%
Eritrea	4	0.5%
Sierra Leone	5	0.4%
Ghana	4	0.4%
Congo	4	0.3%
Ethiopia	4	0.3%
São Tomé and Príncipe	3	

For Further Research

Our researcher's report, "Small Arms in Africa: Legal Indicators," by Denise Garcia, provides an introduction to current efforts to prevent the proliferation of small arms in the region and a discussion of ways in which these efforts might be assessed and compared across countries.

Other information on small arms, particularly in specific countries, is available from a number of sources. Key sources include the Small Arms Survey, located at the Graduate Institute of International Studies, Geneva, Switzerland; Jane's Information Group; and the International Institute for Strategic Studies's (IISS) Armed Conflict Database. A selected list of other useful references includes:

Control Arms (<http://www.controlarms.org/en>), a campaign run by Amnesty International, International Action Network on Small Arms, and Oxfam International.

Catherine Flew and Angus Urquhart, *Strengthening Small Arms Controls: An Audit of Small Arms Control Legislation in the Great Lakes Region and the Horn of Africa*, a SaferAfrica and SaferWorld report (London, 2004).

Chandré Gound and Guy Lamb (eds.), *Hide and Seek: Taking Account of Small Arms in Southern Africa*, Institute for Security Studies (Pretoria, 2004), available at <http://www.iss.co.za>.

Harry Frank Guggenheim Foundation, *Small Arms and Light Weapons: A Call for Research*, published as *The HFG Review* (New York, 2005).

Deborah Hiller, "Africa's Missing Billion," Oxfam Great Britain, Oxfam Briefing Paper 107 (Oxford, 2007).

Noel Stott, "Implementing the Southern Africa Firearms Protocol: Identifying Challenges and Priorities," Institute for Security Studies (ISS), ISS Paper 83 (Pretoria, 2003).

Pieter D. Wezeman, "Conflicts and Transfers of Small Arms," *SIPRI Report* (Solna, 2003).

⁵ Numbers in italics are Index of African Governance estimates.

Ease of Access to Small Arms and Light Weapons

Global Peace Index 2008, supplemented with our coding

	RAW DATA:				SCALED DATA:				SCALED DATA:			
					Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	3	3	3	3	1	1	1	1	100.0	100.0	100.0	100.0
Benin	4	4	4	4	13	13	13	13	50.0	50.0	50.0	50.0
Botswana	3	3	3	3	1	1	1	1	100.0	100.0	100.0	100.0
Burkina Faso	4	4	4	4	13	13	13	13	50.0	50.0	50.0	50.0
Burundi	5	5	5	5	37	37	37	37	0.0	0.0	0.0	0.0
Cameroon	4	4	4	4	13	13	13	13	50.0	50.0	50.0	50.0
Cape Verde	3	3	3	3	1	1	1	1	100.0	100.0	100.0	100.0
Central African Republic	5	5	5	5	37	37	37	37	0.0	0.0	0.0	0.0
Chad	4	4	4	4	13	13	13	13	50.0	50.0	50.0	50.0
Comoros	4	4	4	4	13	13	13	13	50.0	50.0	50.0	50.0
Congo	4	4	4	4	13	13	13	13	50.0	50.0	50.0	50.0
Congo, Democratic Rep.	5	5	5	5	37	37	37	37	0.0	0.0	0.0	0.0
Cote d'Ivoire	4	4	4	4	13	13	13	13	50.0	50.0	50.0	50.0
Djibouti	4	4	4	4	13	13	13	13	50.0	50.0	50.0	50.0
Equatorial Guinea	4	4	4	4	13	13	13	13	50.0	50.0	50.0	50.0
Eritrea	4	4	4	4	13	13	13	13	50.0	50.0	50.0	50.0
Ethiopia	4	4	4	4	13	13	13	13	50.0	50.0	50.0	50.0
Gabon	3	3	3	3	1	1	1	1	100.0	100.0	100.0	100.0
Gambia	4	4	4	4	13	13	13	13	50.0	50.0	50.0	50.0
Ghana	4	4	4	4	13	13	13	13	50.0	50.0	50.0	50.0
Guinea	5	5	5	5	37	37	37	37	0.0	0.0	0.0	0.0
Guinea-Bissau	5	5	5	5	37	37	37	37	0.0	0.0	0.0	0.0
Kenya	5	5	5	5	37	37	37	37	0.0	0.0	0.0	0.0
Lesotho	3	3	3	3	1	1	1	1	100.0	100.0	100.0	100.0
Liberia	5	5	5	5	37	37	37	37	0.0	0.0	0.0	0.0
Madagascar	4	4	4	4	13	13	13	13	50.0	50.0	50.0	50.0
Malawi	4	4	4	4	13	13	13	13	50.0	50.0	50.0	50.0
Mali	4	4	4	4	13	13	13	13	50.0	50.0	50.0	50.0
Mauritania	5	5	5	5	37	37	37	37	0.0	0.0	0.0	0.0
Mauritius	3	3	3	3	1	1	1	1	100.0	100.0	100.0	100.0
Mozambique	4	4	4	4	13	13	13	13	50.0	50.0	50.0	50.0
Namibia	3	3	3	3	1	1	1	1	100.0	100.0	100.0	100.0
Niger	4	4	4	4	13	13	13	13	50.0	50.0	50.0	50.0
Nigeria	5	5	5	5	37	37	37	37	0.0	0.0	0.0	0.0
Rwanda	3	3	3	3	1	1	1	1	100.0	100.0	100.0	100.0
Sao Tome and Principe	3	3	3	3	1	1	1	1	100.0	100.0	100.0	100.0
Senegal	4	4	4	4	13	13	13	13	50.0	50.0	50.0	50.0
Seychelles	3	3	3	3	1	1	1	1	100.0	100.0	100.0	100.0
Sierra Leone	5	5	5	5	37	37	37	37	0.0	0.0	0.0	0.0
Somalia	5	5	5	5	37	37	37	37	0.0	0.0	0.0	0.0
South Africa	4	4	4	4	13	13	13	13	50.0	50.0	50.0	50.0
Sudan	5	5	5	5	37	37	37	37	0.0	0.0	0.0	0.0
Swaziland	4	4	4	4	13	13	13	13	50.0	50.0	50.0	50.0
Tanzania	3	3	3	3	1	1	1	1	100.0	100.0	100.0	100.0
Togo	4	4	4	4	13	13	13	13	50.0	50.0	50.0	50.0
Uganda	3	3	3	3	1	1	1	1	100.0	100.0	100.0	100.0
Zambia	4	4	4	4	13	13	13	13	50.0	50.0	50.0	50.0
Zimbabwe	4	4	4	4	13	13	13	13	50.0	50.0	50.0	50.0

RESEARCHER'S REPORT:
SMALL ARMS IN AFRICA: LEGAL INDICATORS

Denise Garcia¹

This is a "Researcher's Report" prepared for the project, but not necessarily representative of the full range of analysis contained in the 2008 Index. For further information on small arms, see the descriptive note on Ease of Access to Small Arms and Light Weapons.

The study summarized here aims to build on what this Index has done so far regarding the "ease of access to small arms and light weapons" by highlighting other indicators that might be taken into account in this assessment, focusing in particular on relevant legislation. Such indicators might be used in future to study other aspects of small arms prevention, or to study the relationship between *efforts* by governments to reduce small arms in their countries and the *outcomes* assessed in this Index.

This paper thus focuses on relevant international legal instruments, with special attention to agreed-upon instruments for three sub-regions in Africa (eastern, western, and southern). This paper also provides a brief outline of the sorts of coding that might be done on the basis of these instruments to develop "scores" for each African country.² Further information on the author's research can be found in several longer working papers on these topics.

The tenets of the rule of law that are pertinent to the ease of access to small arms can be found in the internationally recognized Programme of Action to Prevent, Combat and Eradicate the Illicit Trade in Small Arms and Light Weapons in All Its Aspects (PoA), which set up the first internationally agreed-upon norms and standards concerning most aspects of the illicit trade of small arms.³ The PoA represents the centerpiece of multilateral efforts to reduce the ease of access to small arms. The PoA, Preamble 22 (e) establishes that for states to prevent, combat, and eradicate the illicit trade in small arms and light weapons, they shall promote responsible action with a view to prevent the illicit export, import, transit, and retransfer of small arms and light weapons.

Therefore, states put in place adequate laws, regulations, and administrative procedures to exercise effective control over the production, export, import, transit, and retransfer of small arms and light weapons within their areas of jurisdiction (PoA, II, 2). In addition, states must adopt legislative measures to establish the illegal manufacturing of, possession of, stockpiling of, and trade of small arms and light weapons as criminal offences under their domestic law to ensure that those engaged in such activities can be prosecuted under appropriate national penal codes (PoA, II, 3). These strict national regulations and procedures must be consistent with the existing responsibilities of states under relevant international laws, taking into account in particular the risk of these weapons being illegally traded.

Other areas that are of concern to the ease of access to small arms are the security of ports, borders, airspace, and the continental shelf, and whether the state has high or low state capacity to oversee arrivals and departures of possibly illegal weapons. In this area, cooperation between regional police forces and the International Criminal Police Organization (Interpol) is essential. Regional police organizations include the Central African Police Chiefs Committee (CAPCCO), Eastern African Police Chiefs' Cooperation Organization (EAPCCO), Southern African Regional Police Chiefs Cooperation Organization (SARPCCO), and West African Police Chiefs Committee (WAPCCO). Mechanisms for police cooperation in Africa through these committees and organizations are effective in reducing arms trafficking. The most active are EAPCCO and SARPCCO.⁴

1 I would like to thank Rachel Gisselquist for her invaluable guidance and supportive supervision throughout. I also extend my appreciation to Robert Rotberg. I am indebted to Grace Park for her meticulous research assistance.

2 Preliminary analysis will be completed along these lines initially for Rwanda, Ethiopia, the Democratic Republic of the Congo, Mauritius, South Africa, Namibia, Angola, Equatorial Guinea, Ghana, and Sierra Leone.

3 UN General Assembly, The Program of Action to Prevent, Combat, and Eradicate the Illicit Trade in Small Arms and Light Weapons in All Its Aspects, issued as part of the Report of the United Nations Conference on the Illicit Trade in Small Arms and Light Weapons in All Its Aspects, New York, 9–20 July 2001, A/CONF.192/PC/15.

4 Elli Kytömäki and Valerie Yankey-Wayne, "Five Years of Implementing the United Nations Program of Action on Small Arms and Light Weapons: Regional Analysis of National Reports," UNIDIR (Geneva, 2006).

Based on these international instruments, a number of indicators might be developed to allow for systematic comparison of efforts across countries to reduce access to small arms and light weapons. This project has focused on the following four legal indicators, adopting a preliminary 1–5 scale for each:

- Control of all aspects of arms production, circulation, and transfer (PoA, II, 2)
- Criminalization of illicit arms production, circulation, and transfer (PoA, II, 3)
- Regulations on arms export authorizations (PoA, II, 11)
- Cooperation with respect to security of ports, borders, airspace, and the continental shelf

In addition, this project explores how several sets of indicators regarding the demand for small arms might also be assessed, focusing on what it calls “black market feeders,” such as civilian possession of arms, arms brokering regulations, and arms destruction and safety of arsenals and depots; as well as socio-economic conditions.

Sub-Regional Instruments

East Africa, the Southern Africa Development Community (SADC), and the Economic Community of West African States (ECOWAS) have moved vigorously toward a regional approach to tackle the scourge of small arms proliferation by enacting legally binding instruments. There are three main reasons for this sub-regional approach. First, Africa is the worst region in the world in terms of small arms proliferation, and this situation has devastating consequences for human security and development. A recent study by Oxfam International, the International Action Network on Small Arms, and Saferworld estimates that the cost of conflict for African development was approximately \$300 billion between 1990 and 2005.⁵ Second, it is much harder in Africa to find consensus at the international level than at the regional level on controversial negotiation issues vis-à-vis restraining arms. At the international level, strong countries like the United States, China, Iran, and Pakistan may block the approval of issues that are important to Africa. Third, there are specific characteristics of the proliferation of arms to each of these sub-regions that make a sub-regional approach more effective in the long term. For instance, there is little endogenous capacity of arms production in the region and most of the problem lies in abundant external supply; poor regulation of intra-regional circulation (of arms left over from conflicts during the Cold War, conflicts throughout the 1990s and afterward); porous borders; and the unregulated activity of arms brokers.

The rest of this report outlines the legal and political structures of the three sub-regional legally binding regimes and discusses related indicators to assess the ease of access to small arms. The paper focuses on the ECOWAS Convention on Small Arms and Light Weapons, Their Ammunition and Other Related Materials, due to its ground-breaking character. It is the first legally binding document on small arms that departs from a purely arms control- and disarmament-approach and is grounded on international humanitarian and human rights law, as well as a belief in the link between armed violence and development.

For each of the regional instruments, this paper explores various indicators analogous to those described at the international level. Preliminary analysis along these lines for ten countries is in progress.

East Africa: Central Africa, Great Lakes, and Horn of Africa

The construction of a legal and political framework for limiting arms in this sub-region happened in three ways. First was the negotiation of the politically binding *Nairobi Declaration on Small Arms* that was enacted by the ministers of foreign affairs from the countries of the Great Lakes region and the Horn of Africa.⁶ Its chief purpose is the encouragement of a coordinated agenda for action for the sub-region to promote human security, aiming at adequate laws to control the possession and transfer of small arms through a series of concrete measures. The second was the creation of the Nairobi Secretariat on Small

⁵ Deborah Hiller, *Africa's Missing Billions: International Arms Flows and the Cost of Conflict* (Oxford, 2006).

⁶ The participating countries are Burundi, the Democratic Republic of the Congo, Djibouti, Ethiopia, Eritrea, Kenya, Rwanda, the Sudan, Uganda, and Tanzania. The Democratic Republic of the Congo is party to both the RECSA and the Southern Africa Development Community frameworks.

Arms to coordinate the action by each member country's National Focal Point on small arms in the Great Lakes region and Horn of Africa. The secretariat's work encompasses crime, conflict, and instability and interacts broadly with civil society: NGOs, religious organizations, academics, journalists, and private sector organizations. The third was the evolution of the Nairobi Declaration into a parallel legally binding instrument, the *Nairobi Protocol for the Prevention, Control and Reduction of Small Arms and Light Weapons in the Great Lakes Region and the Horn of Africa*, adopted in April 2004. As a result, the secretariat was elevated to a Regional Center on Small Arms and Light Weapons in the Great Lakes Region and the Horn of Africa (RECSA), an international organization aiming effectively to implement the *Nairobi Declaration* and the *Nairobi Protocol* that came into force in 2006. The Protocol and RECSA potentially could have a conflict management role in tandem with the regional Inter-Governmental Authority on Development (IGAD).

In the areas relevant to this study, the *Nairobi Protocol* articulated provisions on arms destruction in a comprehensive manner, including surplus weapons, crime, and post-conflict situations (paragraphs 8, 9 and 12). The Protocol also substantially incorporates the issue of arms brokering. Paragraph 11 calls upon states to enact a national system for regulating dealers and brokers of small arms and light weapons that includes licensing and registering all brokers operating within their territory, authorizing each individual transaction taking place, fully disclosing the import and export licenses or authorizations and the documents giving the names and locations of all brokers. On civilian arms ownership, the *Nairobi Protocol* is the most evolved regional instrument adopted after 2001. In its article 2, where the objectives of the protocol are laid out, there is a commitment to "prevent, combat and eradicate the illicit manufacturing of, trafficking in, possession and use of small arms and light weapons in the sub-region." The *Nairobi Protocol*, in its article 3, on "Legislative Measures" says that states shall adopt legislative and other measures to establish, under international law, that the illicit possession and misuse of small arms and light weapons are criminal offences. Article 5 is entirely dedicated to the "Control of Civilian Possession of Small Arms and Light Weapons" and commits states to a wide range of measures, including heavy minimum sentences for armed crimes and the carrying of unlicensed arms; and the prohibition of civilian possession of semi-automatic and automatic rifles and machine guns and all light weapons.

Southern Africa Development Community

The *Southern Africa Development Community (SADC) Protocol on Firearms, Ammunition and Related Materials* aims to create regional controls over trafficking and arms possession. A related organization is SARPPCO (mentioned above), which was formed in 1995 to tackle cross-border criminal activity. SARPPCO's priorities are to reduce the trafficking of firearms and their use in crimes in the region.

The chief goal of the *SADC Protocol*, in force since November 2004, is to prevent, combat, and eradicate the illicit manufacturing of firearms, ammunition, and other related materials, as well as their excessive and destabilizing use, trafficking, and possession. It also seeks to regulate the import and export of legal small arms and thus curb the transit of these weapons into, and within, the region. In addition, the protocol aims to harmonize national legislation across member states regarding the manufacture and ownership of small arms and light weapons. Thus, the *SADC Protocol* marks a further significant development in the efforts of the states of Southern Africa to tackle the scourge of small arms and light weapons.⁷ The main challenges these countries face are obsolete national legislation, precarious peace processes, porous borders, lack of capacity on the part of both governments and civil society effectively to monitor the legal and illegal movement of firearms, and lack of data from which to assess the improvements that may result from the effective implementation of the *SADC Protocol*.⁸

The *SADC Protocol* contains strong provisions on weapons destruction where states agree that surplus, redundant, or obsolete arms and ammunition and other related materials should be securely stored, destroyed, or disposed of in a way that prevents them from entering the illicit firearms market or flowing into regions in conflict or to any other destination that is not fully consistent with agreed-upon criteria for restraint. Thus, destruction is the preferable method for handling surplus weapons.

7 Noel Stott, "Implementing the Southern Africa Firearms Protocol: Identifying Challenges and Priorities," ISS Paper 83 (Pretoria, 2003). For the text of the *SADC Protocol*, see Small Arms Survey database, "Resources," "Documents from Regional and other International Forums," "Africa."

8 Angola, Botswana, the DRC, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia, and Zimbabwe.

The *Protocol* advances a complete definition of “brokers” and all aspects of arms brokering. However, it falls short of fully articulating the components of restraint for this activity, except for encouraging the enactment of legislation containing provisions that regulate firearm brokering in the member states. Remarkably, in its article 5, “Legislative Measures,” the *SADC Protocol* calls for the prohibition of unrestricted possession of small arms by civilians; the total prohibition of the possession and use of light weapons by civilians; and the regulation and centralized registration of all civilian-owned firearms in SADC members’ territories. It further advocates measures ensuring that proper controls are exercised over the manufacturing, possession, and use of firearms, ammunition, and other related materials.

The Economic Community of West African States (ECOWAS)⁹

The West African Action Network on Small Arms (WAANSA) estimates that conflicts in the region have resulted in over 2 million deaths in West Africa over the past decade.¹⁰ Bah notes that “The outbreak of violent civil conflict in Liberia in December 1989 and in Sierra Leone in March 1991 marked the beginning of a change to the political and security configuration of the sub-region.”¹¹ Guinea, Sierra Leone, Liberia, and Côte d’Ivoire became part of a series of illegal small arms trafficking routes in exchange for natural resources such as rubber, timber, and diamonds.¹² Subsequently, these countries suddenly experienced an influx of violent, cross-border, illegal activity. It is estimated that there are approximately 8–10 million illicit weapons concentrated in West Africa.¹³ Even peaceful countries like Ghana have experienced an “upsurge in gun-related crimes, believed to be perpetrated by refugees from the Mano River conflict triangle.”¹⁴

In response to the major human security threat posed by the proliferation of small arms and light weapons, the Economic Community of West African States (ECOWAS), a regional group of fifteen West African nations, adopted a Moratorium on the Importation, Exportation and Manufacture of Small Arms and Light Weapons in West Africa on 30 October 1998. At the time, the ECOWAS Moratorium was a landmark for several reasons. First, it was the first attempt by any sub-regional organization in Africa to establish measures to halt illicit weapons proliferation. Second, the Moratorium set the precedent for the African Union to adopt a similar position for the entire continent relating to the proliferation of small arms and light weapons (the Bamako Declaration). Third, it allowed governments to create National Commissions, which gives each government the ability to implement and monitor its own initiatives as set forth by the Moratorium, with the help of state police, the government, and civil society organizations.¹⁵ Fourth, in cooperation with several United Nations programs and agencies, member states were able to initiate several successful arms collection and destruction programs. For instance, the “Arms for Development Initiative” in Sierra Leone, in partnership with the United Nations Development Program, awarded communities \$20,000 toward the implementation of a development initiative in exchange for the implementation of a voluntary arms collection program.¹⁶ Similarly, the Sierra Leone police force granted limited amnesty to civilians who handed over their licensed or unlicensed weapons.¹⁷ In less than two years, the program collected 9,327 arms and 34,035 kinds of ammunition and explosives.¹⁸

9 I thank Esther Chou for her research assistance on this part.

10 Though official numbers and estimates are uncertain, WAANSA estimates that some 2 million people have died as a result of small arms in West Africa over the course of the decade. See www.iansa.org/regions/wafrica/documents/WAANSA-press-statement-14june06.pdf.

11 Alhaji M.S. Bah, “Micro-Disarmament in West Africa: the ECOWAS moratorium on small arms and light weapons,” *African Security Review*, XIII (2004), 33.

12 *Ibid.*, 1.

13 Official estimates of the number of small arms circulating in West Africa range from 8 to 10 million. According to Reuters in 2007, the number of weapons “concentrated” in West Africa was about 10 million. “Niger: Former conflict zone addresses scourge of small arms,” Reuters (7 March 2007), available at www.alertnet.org/thenews/newsdesk/IRIN/10e3c89a94632591d3fb8bd2f0cc1a18.htm (last accessed 28 August 2008).

14 Bah, “Micro-Disarmament,” 34.

15 *Ibid.*, 35.

16 See United Nations Development Program and the CACD, “Arms for Development” (2007); Ryan Nichols, “BCPR Strategic Review: Sierra Leone,” (2006).

17 Bah, “Micro-Disarmament,” 6.

18 Statistics collected by CACD’s “Arms for Development,” see pp. 6–7.

Despite its importance as a model for responsible sub-regional action in the small arms debate, there are several criticisms of the Moratorium. In 2003, during the conflict in Liberia and despite having the Moratorium in place, the government of Guinea allegedly imported mortar rounds and ammunition from Iran into Liberia. On cargo documents, these weapons were declared as “technical equipment.”¹⁹ These mortar rounds and ammunition were later sent to the Liberians United for Reconciliation and Democracy (LURD) rebels. They used the weapons in civilian areas of Monrovia. Human Rights Watch notes that LURD rebels used child soldiers as young as eleven to fire such mortars that, according to the Moratorium, should not have been in circulation in the first place.²⁰ Liberia, once under the control of Charles Taylor, has been under arms embargo by the United Nations since its civil war began in 1989. Human Rights Watch notes that the governments of Sierra Leone, Burkina Faso, and Côte d’Ivoire also were frequent violators, at one point supplying Taylor with arms and ammunitions despite the Moratorium.

Despite its shortcomings, the Moratorium paved the way for the creation of the ECOWAS Convention on Small Arms and Light Weapons, Their Ammunition and Other Related Material, signed in 2006, making it legally binding for all states to adopt and to implement measures on arms trafficking and proliferation reduction. The convention will come into force upon the ninth ratification by member states.²¹ According to Ogunbanwo, lead international consultant for the convention, “the preceding moratorium had ‘no teeth’ because it was not legally binding. The new Convention has a monitoring and implementation mechanism set in place.”²² The document states in its preamble that the proliferation of small arms and light weapons constitutes a major destabilizing factor in ECOWAS member states and poses a serious threat to the peace and stability of its peoples. States are aware of the disastrous consequences that the proliferation of small arms and light weapons have on the prolongation of armed conflicts and the illegal exploitation of natural resources.

The convention’s enforcement strategy is overseen by the ECOWAS executive secretary who is tasked with developing a plan of action strategies (PoAS) to implement the convention, which is then subject to the approval of the member states for adoption. Subsequently, the convention also created an independent group of experts who assist in monitoring implementation of the PoAS. According to Ogunbanwo, the convention has great potential to reduce armed violence because of its legally binding nature. It can “create a ban on international small arms transfers to non-state actors, impose sanctions on violating member states, regulate local arms manufacturers, create procedures to share information through national databases, regulate small arms possession through more rigorous licensing and registration schemes, and more effectively manage current and existing government stock piles.”²³

That the convention is housed at ECOWAS, a long-standing institution, is beneficial for the implementation of the convention, as the structure is already in place.²⁴ The ECOWAS convention breaks new ground as it is based upon human security, international humanitarian law, sustainable development, and human rights principles (preamble). Under the convention, arms transfers shall not be authorized if they will violate obligations of universally accepted principles of international humanitarian law. Arms transfers should be prohibited if they will infringe upon human rights norms, or be used to perpetrate oppression, and perpetrate violations of international humanitarian law, genocide, or crimes against humanity. In addition, arms transfers must be restrained if they will jeopardize sustainable development and unjustifiably divert human and economic resources to arms procurement (Article 6).

Article 20 aims to regulate brokering activities by imposing: registration of brokers, financial agents, and agents transporting arms; obtaining an authorization for each individual transaction; information on transit points and routes, as well as the

19 Guinea exports weapons cargo to Liberia under the name “technical equipment” according to the testimony of Lisa Misol, Human Rights Watch researcher, before the Congressional Human Rights Watch Caucus. *Small Arms and Conflict in West Africa* (text only) (20 May 2004), available at <http://hrw.org/english/docs/2004/05/20/africa8680.htm> (last accessed 28 August 2008).

20 The use of child soldiers during Liberia’s eleven-year civil war is noted in several references, most notable in Lisa Misol’s testimony (see above).

21 Ilhan Berkol, “Analysis of the ECOWAS Convention on Small Arms and Light Weapons and recommendations for the development of a Plan of Action” (Brussels, 2007).

22 Interview between IANSA and Dr. Sola Ogunbanwo, available at <http://www.iansa.org/regions/wafrica/ecowas-interview.htm#top> (last accessed 3 September 2008).

23 Ibid.

24 Berkol, “Analysis of the ECOWAS,” 8.

brokers and transporters involved in the transaction; and criminalizing illicit arms brokering. Berkol says that this is a pioneering restriction in the region because most “states hitherto considered that no arms brokers were operating in their territories, and that arms transfers were largely the prerogative of the State. Certain government experts expressed concerns that the introduction of an article on brokering in the convention would accord a certain degree of legitimacy to private brokers who could also deal on the illicit arms market. Others considered that, on the contrary, the lack of regulation of brokering activities would constitute a missed opportunity.”²⁵

The adoption of the three regional legally binding protocols is an important first step toward curbing the proliferation and ease of access to small arms in Africa. Those on the continent have not shied away from spelling out in legal and concerted terms what must be achieved. Since 2001, Africa has received approximately \$409 million in assistance within the framework of the PoA. Most of this assistance has been allocated to disarmament, demobilization, and reintegration (more than \$250 million). This was followed closely by funding for capacity building (more than \$50 million). Weapons destruction, collection, and stockpile management have received considerable funds as well. The important areas of law enforcement, and customs and borders, however, have received less than \$10 million, and brokering has received no funding yet. There are many countries that have received less than \$2 million, half of which are amongst the least developed countries.²⁶ In order for the ambitious goals set to be achieved, more assistance is needed, as well as more coordinated action at the national, regional, and international levels.

²⁵ Ibid., 5.

²⁶ Kerry Maze and Sarah Parker, *International Assistance for Implementing the PoA to Prevent, Combat and Eradicate the Illicit Trade in Small Arms and Light Weapons in All Its Aspects: Findings of a Global Survey* (New York, 2006), 59.

Category: Safety and Security

Sub-Category: Public Safety

INDICATOR: LEVEL OF VIOLENT CRIME (HOMICIDE RATES)

Our indicator of crime is based on rates of homicides, rated on a 1 to 5 scale, where 1 is least violent. Our numbers are adapted from estimates on rates of homicide done by the Economist Intelligence Unit (EIU) for the Global Peace Index 2008. EIU scores are based on data from the United Nations Surveys on Crime Trends and the Operation of Criminal Justice Systems (7th, 8th, and 9th surveys) and on estimates by EIU analysts. The UN Surveys cover the period 1998 to 2004.¹ Scores are assigned based on the rate of intentional homicide per 100,000 people, using the following scale: 1=0 to 1.9; 2=2 to 5.9; 3=6 to 9.9; 4=10 to 19.9; and 5= greater than 20. Additional notes on this indicator can be found on the Global Peace Index website.

Our additional estimates follow the same scheme and are based on the same UN Surveys for available countries not included in the Global Peace Index 2008, on our own country research, and on other qualitative reports. Key qualitative sources were the “Crime and Safety Reports” for various countries compiled by the Overseas Security Advisory Council (OSAC) of the U.S. Department of State, along with the briefer “Country Specific Information” reports; the UK Foreign and Commonwealth Office’s “Travel Information;” and the country reports on the website “Crime and Society: A Comparative Criminology Tour of the World,” compiled by Robert Winslow at San Diego State University.

The data suggest that the worst homicide rates in the region are in the Central African Republic, Chad, the Democratic Republic of the Congo, Somalia, South Africa, and the Sudan, while the safest countries (in terms of homicide rates) are Cape Verde, the Comoros, Gabon, Rwanda, and São Tomé and Príncipe. Some of these scores differ from popular impressions of crime in particular countries. The case of Botswana is illustrative. The 2008 Global Peace Index and our own local research show a comparatively high homicide rate—higher than that of Zimbabwe for example—even though impressionistically that conclusion would not immediately arise.

This Index continues to work toward better figures on crime—in particular, for assaults, thefts, and rape, in addition to homicide. However, reliable crime data for most countries remain unavailable at this time, a persistent problem noted by experts. In addition, as the Global Peace Index 2008 also notes, there are a number of methodological difficulties in the interpretation of crime statistics. For instance, an increase in *reported* crimes may not necessarily reflect an increase in the occurrence of crime, but better policing and reporting.² There may be very high crime rates in some countries, but official statistics may not reflect these rates because of poor capacity in the police force—a point highlighted by the notes on several countries below. Cross-national comparisons of crime statistics are also complicated particularly by different definitions of various crimes.

Finally, it should be noted that the Global Peace Index also includes another indicator on the “level of violent crime.” The Global Peace Index describes this indicator as a “qualitative assessment of the level of violent crime” that is “ranked 1-5 (very low–very high) by EIU analysts.”³ We chose to use the homicide indicator because we judged its methodology to be clearer after comparing the level of violent crime scores against available crime statistics and against the homicide indicator.

Technical Notes

Figures for the following countries are not available from the 2008 Global Peace Index: Benin, Burundi, Cape Verde, the Comoros, Congo, the Democratic Republic of the Congo, Djibouti, Eritrea, the Gambia, Guinea, Guinea-Bissau, Lesotho,

1 The Ninth Survey covers 2003 to 2004, the Eighth covers 2001 to 2002, and the Seventh covers 1998 to 2000. Results of the Tenth Survey, covering 2005 to 2006, were not available at the time of publication; surveys were submitted for this survey in January 2008.

2 For further discussion, see for instance, Rodrigo R. Soares, “Crime Reporting as a Measure of Institutional Development,” *Economic Development and Cultural Change*, LII (2004), 851–871; Rodrigo R. Soares, “Development, Crime, and Punishment: Accounting for the International Differences in Crime Rates,” *Journal of Development Economics*, LXII (2004), 155–184; Karen-Michelle Collins, “Negligent Homicide/ Manslaughter (Involuntary),” *International Encyclopedia of Justice Studies* (2002), available at www.iejs.com/Law/Criminal_Law/Negligent_Homicide-Manslaughter.htm (last accessed 20 July 2008).

3 From http://www.visionofhumanity.com/GPI_Indicators/index.php (last accessed 1 August 2008).

Liberia, Mauritius, Niger, São Tomé and Príncipe, the Seychelles, Sierra Leone, Swaziland, and Togo.

Our estimates for the following countries are based on crime statistics from the sources given:

Burundi: “Rapport annuel de la Police. Les grandes réalisations des commissariats centraux, Unités Spécialisés et régions,” internal documents, Bujumbura, 2005 and 2006.

Estimates given are 120 (or 1.2 per 100,000) for 2005 and 236 (or 2.9 per 100,000) for 2006. The estimates do not include crimes committed as part of the civil conflict. These crime statistics suggest a coding of “2.” We assign a coding of “3” based on other qualitative reports.

The Comoros: The Gendarmerie Nationale reports 6 homicides (or 1.0 per 100,000) for 2006 and 4 (or 0.7 per 100,000) for 2007. These numbers suggest a coding of “1,” which is consistent with other information.

Djibouti: Direction Générale de la Police Nationale, “Les infractions comparées dans les 5 dernières années,” table from *Bilan Annuel des Activités de la Police Nationale*. Table lists 21 voluntary homicides in 2005 (or 2.6 per 100,000) and 2 (or 0.2 per 100,000) in 2006. The data available suggest an increase in homicides for 2004 and 2005, while figures for 2003 and 2006 are lower. These statistics suggest a score of 1 to 2. Other information supports the “2” coding.

Guinea: Estimates from a contact at the Ministry of Justice, but *only for the capital city of Conakry*, suggest 25 in 2005 and 30 in 2006, or about 1.3 to 1.5 per 100,000 people. We assign a score of “2” based on other reports.

Lesotho: Information provided by Malineo Ramothokoane, Crime Statistics Police Headquarters, Maseru, and Atang, Senior Clerk of Court, Ministry of Justice. Figures given indicate 24 convicted in 2005 (1.2 per 100,000) and 27 convicted in 2006 (1.4 per 100,000). However, there are significant discrepancies in available figures for Lesotho. Data collected from Lesotho Correctional Services by another researcher in 2007 give the number of murders in 2004 as 42, or 2.3 per 100,000 people. Figures earlier in the 2000s were higher, with an average yearly value for 2000–2004 of 70.2 murders, or 3.9 per 100,000 people. Data from the UNODC surveys for 1994 suggest a much higher murder rate of 50.7. “Crime and Society: A Comparative Criminology Tour of the World,” notes that “The crime rate in Lesotho is low to moderate compared to industrialized countries, with the important exception of murder.”⁴ Other sources describe the crime situation as “critical.” For instance, the OSAC’s “Lesotho 2008 Crime & Safety Report” notes that “Lesotho’s criminal threat rating continues to be critical. The capital of Maseru and major interior towns near Lesotho’s border with neighboring South Africa continue to experience a high rate of criminal activity including theft, home invasions, armed robbery, physical and sexual assault, and homicide.”⁵ The FCO’s report highlights gun-related crime and muggings in Maseru, and risks of armed car-jacking. Given this information, we assign a rating of “4” to Lesotho.

Liberia: The Division of Statistics, Liberia National Police Headquarters, did not have final figures but provided estimates of 18 convicted homicides in 2005 and 10 in 2006, suggesting rates of 0.5 and 0.3 per 100,000 (i.e., very low homicide rates). These estimates are inconsistent with available information from other sources, which rate crime, including violent crime, as high. The Liberian police reportedly has a low capacity to investigate and provide protection against crime, suggesting one reason why homicide rates may nevertheless be low. The FCO notes that: “There is a significant level of crime in Monrovia—including violent crime. The Liberian National Police has very limited capability to prevent or detect crime, or to provide emergency response in any part of the country.”⁶ The Country Specific Information from the U.S. State Department notes that “The police are ill equipped and largely incapable of providing effective protection or investigation. Criminal activity is reported in both urban and rural areas.”⁷ Given available information, we rank Liberia a “4.”

⁴ <http://www-rohan.sdsu.edu/faculty/rwinslow/africa/lesotho.html>.

⁵ <https://www.osac.gov/Reports/report.cfm?contentID=87150>.

⁶ <http://www.fco.gov.uk/en/travelling-and-living-overseas/travel-advice-by-country/sub-saharan-africa/liberia>.

⁷ http://travel.state.gov/travel/cis_pa_tw/cis/cis_950.html.

Mauritius: Crime Statistics (1996–2006), Police Department, Government of Mauritius.⁸ This source reports 97 (or 7.8 per 100,000) for 2005 and 110 (or 8.8 per 100,000) for 2006, which suggests a value of “3.” Other qualitative reports suggest that a lower value of “2” may be appropriate. Data from the UNODC surveys give rates of 2.19 for 2000, 2.95 for 2003, and 2.51 for 2004, suggesting a score of “2.” These homicide rates are consistent with data obtained in 2007 from the Central Statistics Office of Mauritius, which reported 35 intentional homicides in 2004, or 2.8 per 100,000 people. These figures are also consistent with the figure of 2.9 for 1999, reported by WHO’s *World Report on Violence and Health*.⁹

Niger: The *Rapport Annuel des Statistiques de la Gendarmerie Nationale 2005* and *2006*, consulted at Gendarmerie National - Fichier Central. This report lists voluntary homicides at 95 in 2005 and 72 in 2006, or 0.7 and 0.5 per 100,000 people, respectively. If we include infanticides, the rates are 128 in 2005 and 128 in 2006, or 0.9–1 per 100,000 people. Other reports suggest a higher risk, and we thus assign a value of “2.”

São Tomé and Príncipe: National Police, Department of Statistics. For 2005, 1 homicide is reported and in 2006, 7 intentional homicides (3 involuntary), or about 0.7 and 4.5 per 100,000. Given all available information, we assign a score of “1.”

The Seychelles: From National Statistics Bureau, based on the *Statistical Abstract 2007*, Table 113. Two homicides are reported in 2005 and 9 in 2006, suggesting rates of about 2.4 and 10.6 per 100,000 people, or a “2” and “4” rating. In addition, UNODC surveys give rates of 7.39 for 2000, suggesting a score of “3.” We take the average to get a score of “3.”

Sierra Leone: Compiled and provided by the Research Planning Unit (RPU) of the Corporate Services Department, Sierra Leone Police Headquarters, Freetown. Estimates note 99 homicides in 2005 and 104 in 2006, suggesting about 1.8 homicides per 100,000 people. These estimates suggest a coding of “1” (almost “2”). Other information suggests a slightly higher rating may be appropriate. For instance, the OSAC “2008 Crime & Safety Report” notes that “Violent crime is no worse in Sierra Leone than in most other West African countries, but it does exist. Assailants often utilize aggressive tactics, operate in numbers and carry weapons to facilitate their activity, which increases the likelihood of a violent crime being committed.”¹⁰ Given the available information, we assign a score of “2.”

For Swaziland, our estimate is based on the UNODC surveys, which give homicide rates of 13.63 in 2004, suggesting our score of “4.” Earlier rates are 88.61 in 2000 and 13.05 in 2003. These rates are also broadly consistent with the last Interpol data available for the 1990s, which give a rate of 13.2. We also obtained data from the Swaziland Police Headquarters for 2001 to 2006. These data give murder rates of 98.46 per 100,000 people in 2001 (1,029 murders); 100.38 in 2002 (1,072); 104.30 in 2003 (1,135); 109.54 in 2004 (1,211); 112.52 in 2005 (1,260); and 105.22 in 2006 (1,190). These figures, however, are inconsistent with the UNODC figures for the same years, suggesting a broader definition. A high crime rating is also consistent with qualitative reports.

Our researchers found no official statistics or estimates from official sources to be available for the following countries, despite requests to the relevant authorities: Benin, Cape Verde, the Gambia, Guinea, and Togo. Official data were also unavailable for Eritrea and Guinea-Bissau. For these countries, we have estimated a score based on qualitative reports available.

It should be noted that there are some discrepancies between the information we have collected for various countries and the Global Peace Index codings. Most, however, are consistent with our information. For instance, the data we obtained from the Malawi National Police Crime database in 2007 give a homicide rate of 3.5 per 100,000 people (or 455 homicides) for 2005, which is consistent with the EIU score of “2” for Malawi. We also noted several differences. For Côte d’Ivoire, the UNODC survey data from 2000 (from the 7th survey) give a rate for “intentional homicide, completed” of 4.1 per 100,000 people (or 651 total). These data thus suggest that Côte d’Ivoire’s score should be “2,” but it receives a “3.” For Kenya, information reported by the Kenya Police gives 2,411 homicides in 2004 and 2,313 homicides in 2005, or 7.2 and 6.8 per

8 The information is available at <http://www.gov.mu/portal/goc/cso/ei646/toc.htm>.

9 See Table A.8, p. 310.

10 Available at <https://www.osac.gov/Reports/report.cfm?contentID=86985> (last accessed 4 August 2008).

100,000 people, respectively.¹¹ These data suggest scores of “3” rather than “4.” In both of these cases we defer to the final judgment of EIU analysts, who took into account both UNODC scores and other information on the countries.

For Further Reading

The UN Surveys provide a useful starting point for further research. For more on the UN Survey data see, in particular, United Nations Office on Drugs and Crime (UNODC), *Crime and Development in Africa* (June 2005).¹² The UN Surveys are intended to collect data directly from all countries, but in fact, the data currently available cover only ten sub-Saharan African countries for at least one year since 2000.¹³ The UNODC notes that Africa is “the least documented region in terms of data and information on crime and drugs” and has sought to address this problem through a three-year program, launched in 2005, on “Data for Africa.”¹⁴

The International Criminal Police Organization (Interpol) previously reported data for many African countries on homicides and other categories of crime, but such figures have not been publicly available since 1999.¹⁵ In 2006, Interpol resolved to discontinue the production of crime statistics, citing problems with the accuracy and reliability of the data.¹⁶

The Index of African Governance team conducted extensive research into sources of data on crime. See Melesse Tashu, “Researcher’s Report: Crime Data,” in Robert I. Rotberg and Rachel M. Gisselquist, *Strengthening African Governance: Ibrahim Index of African Governance: Results and Rankings 2007* (Cambridge, MA, 2007), 219–229.

In addition to those sources noted above, other key sources researched include the International Crime Victims Survey, survey questions on experience with crime from the Afrobarometer studies, and the WHO’s *World Report on Violence and Health* (2002).¹⁷ We also explored other survey-based sources such as the World Economic Forum’s *Africa Competitiveness Report 2007*, which includes several questions on crime as an obstacle to doing business in its Executive Opinion Survey. These data cover half of the countries in sub-Saharan Africa.

11 Kenya Police, “Total Crime Figures for 2004, 2005 and 2006,” available from <http://www.kenyapolice.go.ke/crime%20statistics.asp> (last accessed 10 April 2008). We calculate rates per 100,000 people using population data from the World Bank’s World Development Indicators.

12 Available at http://www.unodc.org/pdf/African_report.pdf (last accessed 3 August 2008).

13 For the period since 2000, some crime figures are available for Côte d’Ivoire, Ethiopia, Mauritius, Namibia, the Seychelles, South Africa, Swaziland, Uganda, Zambia, and Zimbabwe.

14 From <http://www.unodc.org/unodc/en/data-and-analysis/Data-for-Africa.html> (last accessed 3 August 2008). See also “Crime and Drugs as Impediments to Security and Development of Africa: A Programme of Action, 2006-2010,” a program endorsed by the “Round Table for Africa” hosted by the Government of Nigeria organized by the United Nations Office on Drugs and Crime, Abuja, Nigeria, 5–6 September 2005, available at https://www.unodc.org/art/docs/english_prog_action.pdf (last accessed 3 August 2008).

15 See International Criminal Police Organization, *Statistiques criminelles internationales. International crime statistics* (Saint-Cloud, France, Secrétariat général de l’O.I.P.C.-Interpol). The 1998 and 1999 editions together cover fewer than half of the forty-eight sub-Saharan African countries. The 1999 report covers Angola, Eritrea, Ethiopia, Ghana, Lesotho, Mauritania, Mauritius, Namibia, Rwanda, Senegal, the Seychelles, South Africa, Swaziland, Tanzania, and Zimbabwe (fifteen countries). The 1998 report covers eight additional countries: Benin, Burkina Faso, Burundi, Cameroon, Djibouti, Mali, Niger, and Uganda.

16 Interpol–General Assembly, “75th Interpol General Assembly - Rio de Janeiro, Brazil, 19–22 September 2006” (Resolution No AG-2006-RES-19).

17 Etienne G. Krug, Linda L. Dahlberg, James A. Mercy, Anthony B. Zwi, and Rafael Lozano (eds.), *World Report on Violence and Health* (Geneva, 2002), available at http://www.who.int/violence_injury_prevention/violence/world_report/en/full_en.pdf (last accessed 3 August 2008).

Level of Violent Crime (Homicide Rates)

Global Peace Index 2008, supplemented with official data from selected countries and other reports

	SCALED DATA:											
	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	3	3	3	3	23	23	23	23	50.0	50.0	50.0	50.0
Benin	2	2	2	2	6	6	6	6	75.0	75.0	75.0	75.0
Botswana	4	4	4	4	36	36	36	36	25.0	25.0	25.0	25.0
Burkina Faso	2	2	2	2	6	6	6	6	75.0	75.0	75.0	75.0
Burundi	3	3	3	3	23	23	23	23	50.0	50.0	50.0	50.0
Cameroon	3	3	3	3	23	23	23	23	50.0	50.0	50.0	50.0
Cape Verde	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Central African Republic	5	5	5	5	43	43	43	43	0.0	0.0	0.0	0.0
Chad	5	5	5	5	43	43	43	43	0.0	0.0	0.0	0.0
Comoros	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Congo	4	4	4	4	36	36	36	36	25.0	25.0	25.0	25.0
Congo, Democratic Rep.	5	5	5	5	43	43	43	43	0.0	0.0	0.0	0.0
Cote d'Ivoire	3	3	3	3	23	23	23	23	50.0	50.0	50.0	50.0
Djibouti	2	2	2	2	6	6	6	6	75.0	75.0	75.0	75.0
Equatorial Guinea	2	2	2	2	6	6	6	6	75.0	75.0	75.0	75.0
Eritrea	2	2	2	2	6	6	6	6	75.0	75.0	75.0	75.0
Ethiopia	2	2	2	2	6	6	6	6	75.0	75.0	75.0	75.0
Gabon	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Gambia	2	2	2	2	6	6	6	6	75.0	75.0	75.0	75.0
Ghana	2	2	2	2	6	6	6	6	75.0	75.0	75.0	75.0
Guinea	2	2	2	2	6	6	6	6	75.0	75.0	75.0	75.0
Guinea-Bissau	2	2	2	2	6	6	6	6	75.0	75.0	75.0	75.0
Kenya	4	4	4	4	36	36	36	36	25.0	25.0	25.0	25.0
Lesotho	4	4	4	4	36	36	36	36	25.0	25.0	25.0	25.0
Liberia	4	4	4	4	36	36	36	36	25.0	25.0	25.0	25.0
Madagascar	2	2	2	2	6	6	6	6	75.0	75.0	75.0	75.0
Malawi	2	2	2	2	6	6	6	6	75.0	75.0	75.0	75.0
Mali	3	3	3	3	23	23	23	23	50.0	50.0	50.0	50.0
Mauritania	3	3	3	3	23	23	23	23	50.0	50.0	50.0	50.0
Mauritius	2	2	2	2	6	6	6	6	75.0	75.0	75.0	75.0
Mozambique	2	2	2	2	6	6	6	6	75.0	75.0	75.0	75.0
Namibia	3	3	3	3	23	23	23	23	50.0	50.0	50.0	50.0
Niger	2	2	2	2	6	6	6	6	75.0	75.0	75.0	75.0
Nigeria	4	4	4	4	36	36	36	36	25.0	25.0	25.0	25.0
Rwanda	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Sao Tome and Principe	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Senegal	2	2	2	2	6	6	6	6	75.0	75.0	75.0	75.0
Seychelles	3	3	3	3	23	23	23	23	50.0	50.0	50.0	50.0
Sierra Leone	2	2	2	2	6	6	6	6	75.0	75.0	75.0	75.0
Somalia	5	5	5	5	43	43	43	43	0.0	0.0	0.0	0.0
South Africa	5	5	5	5	43	43	43	43	0.0	0.0	0.0	0.0
Sudan	5	5	5	5	43	43	43	43	0.0	0.0	0.0	0.0
Swaziland	4	4	4	4	36	36	36	36	25.0	25.0	25.0	25.0
Tanzania	3	3	3	3	23	23	23	23	50.0	50.0	50.0	50.0
Togo	3	3	3	3	23	23	23	23	50.0	50.0	50.0	50.0
Uganda	3	3	3	3	23	23	23	23	50.0	50.0	50.0	50.0
Zambia	3	3	3	3	23	23	23	23	50.0	50.0	50.0	50.0
Zimbabwe	3	3	3	3	23	23	23	23	50.0	50.0	50.0	50.0

Governments and governance cannot exist or function without the political good called Rule of Law. Such a designation refers not necessarily to the Anglo-Saxon common law, the Napoleonic Code, Islamic jurisprudential methods, or others, but rather to any codified, transparent method of adjudicating personal disputes, formal and informal contractual obligations, and disputes between citizens and the nation-state, without resort to violence. Thus, nation-states with enforceable codes of law, nation-states that have adhered to international conventions and legal obligations, and nation-states with judicial mechanisms free of state control have stronger rule of law regimes and supply larger amounts of the political good Rule of Law.

This political good has three main components (sub-categories), all weighted equally in this Index of African Governance: Ratification of Critical Legal Norms; Judicial Independence and Efficiency; and Corruption. Although this Index prefers objective and “objectively measured” data on which to base its ratings of each of the three components, we are compelled again this year to rely for some of our sub-sub-categories (indicators) on perceptually derived numbers. Overall, there are seven indicators within these three components.

As the term “rule of law” is used here it highlights “the idea of laws enacted—laid down, legislated—by an authoritative body.” The term is sometimes used also or instead to highlight human rights and democracy, the idea of “a higher notion of Law as binding because it is sound in principle.”¹ This broader second approach is addressed in the Index of African Governance under the category of “Participation and Human Rights.”

Ratification of Critical Legal Norms

1. *Ratification of core international human rights conventions.* There are seven core human rights conventions currently in force. This indicator assesses whether a country’s legal norms with respect to this core area are clearly consistent with international law. Using information from the Office of the United Nations High Commissioner for Human Rights (OHCHR), it assigns a value 0 to 7 for each country in each year based on the number of core conventions ratified. Other aspects of respect for human rights *in practice* are addressed through the next indicator in this sub-category, as well as through various indicators under the category of “Participation and Human Rights.”

2. *The presence of international sanctions.* At the most basic level, it is important to know whether a country is in gross violation of international legal norms. This indicator is based on information denoting the imposition of sanctions for each year from the records of the UN Security Council.

3. *Laws on contracts and property rights* are other important areas for which clear legal norms are key. No acceptable measure yet exists for these important aspects of legal norms. The Index this year uses as a proxy the “Property Rights Index” developed

¹ George P. Fletcher, *Basic Concepts of Legal Thought* (New York, 1996), 11–12. The term corresponds roughly to the distinction between “law” and “rights,” although these terms are not used to capture this distinction in English in the same way they are in other languages (e.g., in French, *loi* versus *droit*, or in Spanish, *ley* versus *derecho*).

as one of the ten sub-components of the Index of Economic Freedom, produced by the Heritage Foundation and *Wall Street Journal*. The Property Rights Index rates the degree to which a country's laws protect and enforce private property rights.²

Existence of Independent and Efficient Judicial Systems

1. *Judicial independence* is a key aspect of a functioning judiciary and of the rule of law. Several projects are currently underway to code judicial independence, but none is appropriate for use by the Index at this time.³ The Index this year relies instead on the “rule of law” sub-score from the civil liberties index of Freedom House’s *Freedom in the World*. This is a composite measure that assesses the independence of the judiciary, civilian control of police, protection from political terror, and equal treatment across various groups. It is based on detailed expert surveys, with low values suggesting poor rule of law and high values, better rule of law.

2. *Efficiency of the courts*, based on numbers of pre-trial detainees as a percentage of all detainees. Numbers are from statistics compiled by the International Centre for Prison Studies and from official national sources, gathered by our own country researchers.

3. *Efficiency of national institutions regarding contract enforcement*, based on the number of days it takes to settle a contract dispute. Estimates are drawn from the World Bank’s *Doing Business* study.

Corruption

1. *Public sector corruption* from the annual “Corruption Perceptions Index” (CPI) of Transparency International and other information on the CPI published by the Internet Center for Corruption Research. The CPI is a composite index based on multiple polls from numerous institutions. In order to give scores for all countries, we also include some additional estimates based on information from the Internet Center. Possible scores range from 0 (high levels of perceived corruption) to 10 (low levels of perceived corruption). The CPI is the current gold standard for measuring nation-state corruption. Although comparisons of the CPI over time are problematic (as discussed further in the descriptive note to this indicator), it is the best measure available at this time.

Going Forward

The Index of African Governance continues to work toward the inclusion of new, more objectively verifiable data on the rule of law. Some of these data may be derived from ongoing data collection efforts by the Index in each African country. Several other projects to assess the rule of law in specific African countries also provide excellent starting points for more detailed study into the rule of law in particular countries. Examples include the comprehensive country reports on “Justice Sector and the Rule of Law” published by the Open Society Initiative for Southern Africa and various projects of the African Division of the American Bar Association’s Rule of Law Initiative.⁴

2 For more information on methodology, see the detailed notes on this indicator.

3 These include efforts by the Comparative Constitutions Project and by the Cingranelli-Richards Human Rights Dataset.

4 “Justice Sector and Rule of Law” country reports are available online through the Africa Governance Monitoring and Advocacy Project at <http://www.afrimap.org/>. On the ABA project, see <http://www.abanet.org/rol/africa/>.

Rule of Law, Transparency, and Corruption Rankings

Listed by 2006 Score

1	Cape Verde	86.1
2	Botswana	81.6
3	Mauritius	80.5
4	Seychelles	80.4
5	South Africa	78.1
6	Namibia	76.7
7	Ghana	72.7
8	Lesotho	69.3
9	Senegal	66.2
10	Malawi	64.0
11	Zambia	60.5
12	Tanzania	59.6
13	Mauritania	58.8
14	Madagascar	57.3
15	Swaziland	56.9
16	Eritrea	56.6
17	Burkina Faso	56.5
18	Gabon	56.4
19	Kenya	56.0
20	Uganda	55.8
21	Sao Tome and Principe	55.6
22	Gambia	54.7
23	Comoros	52.8
24	Benin	52.3
25	Niger	51.7
26	Guinea	51.0
27	Mozambique	50.4
28	Mali	50.0
29	Burundi	48.3
30	Nigeria	48.2
31	Ethiopia	47.9
32	Togo	47.1
33	Rwanda	46.0
34	Zimbabwe	44.6
35	Djibouti	43.6
36	Congo	43.5
37	Cameroon	43.3
38	Equatorial Guinea	43.3
39	Central African Republic	42.7
40	Chad	40.1
41	Angola	38.4
42	Sierra Leone	37.3
43	Cote d'Ivoire	36.0
44	Guinea-Bissau	34.6
45	Sudan	29.8
46	Liberia	26.8
47	Congo, Democratic Republic	24.3
48	Somalia	8.2

Rule of Law, Transparency, and Corruption Rankings

Listed by 2000 Score		Listed by 2002 Score		Listed by 2005 Score		
1	Namibia	90.5	Namibia	85.8	Mauritius	82.7
2	Botswana	80.9	Botswana	82.6	Botswana	82.0
3	Mauritius	78.7	Mauritius	78.1	Cape Verde	80.4
4	Seychelles	78.0	Seychelles	78.0	South Africa	75.4
5	Cape Verde	77.4	South Africa	74.1	Seychelles	74.4
6	South Africa	76.1	Cape Verde	73.7	Namibia	74.1
7	Mauritania	70.1	Mauritania	71.9	Ghana	70.5
8	Lesotho	67.7	Ghana	70.5	Lesotho	66.8
9	Malawi	66.5	Lesotho	69.5	Senegal	65.0
10	Ghana	63.8	Senegal	64.9	Malawi	63.2
11	Senegal	62.9	Malawi	63.8	Mauritania	62.2
12	Benin	61.5	Gambia	60.5	Zambia	60.5
13	Zambia	60.5	Zambia	59.9	Burkina Faso	58.5
14	Gambia	60.5	Eritrea	59.8	Eritrea	58.5
15	Burkina Faso	58.9	Benin	59.6	Tanzania	57.6
16	Mali	57.3	Gabon	59.2	Gambia	56.8
17	Tanzania	56.6	Mali	57.3	Kenya	56.7
18	Sao Tome and Principe	55.0	Uganda	55.4	Gabon	55.2
19	Kenya	53.5	Sao Tome and Principe	55.0	Uganda	55.0
20	Uganda	53.4	Tanzania	54.9	Madagascar	54.7
21	Zimbabwe	52.8	Kenya	54.7	Benin	52.3
22	Swaziland	51.2	Madagascar	51.3	Sao Tome and Principe	51.8
23	Gabon	50.7	Comoros	50.7	Swaziland	51.6
24	Comoros	50.7	Burkina Faso	50.5	Mali	51.4
25	Guinea-Bissau	48.6	Guinea	50.3	Comoros	51.4
26	Niger	48.5	Ethiopia	49.8	Guinea	51.0
27	Guinea	48.5	Rwanda	49.8	Niger	50.5
28	Central African Republic	48.4	Guinea-Bissau	48.6	Ethiopia	49.1
29	Cote d'Ivoire	48.2	Niger	48.5	Burundi	47.9
30	Togo	47.5	Central African Republic	48.4	Congo	47.8
31	Burundi	46.3	Swaziland	47.5	Mozambique	46.6
32	Rwanda	46.1	Togo	47.5	Togo	46.1
33	Congo	46.0	Burundi	46.3	Zimbabwe	45.8
34	Madagascar	45.3	Cote d'Ivoire	46.2	Central African Republic	45.4
35	Ethiopia	43.3	Congo	46.0	Equatorial Guinea	44.6
36	Sudan	40.9	Zimbabwe	45.1	Nigeria	44.5
37	Cameroon	40.7	Sudan	44.2	Rwanda	44.0
38	Djibouti	40.4	Mozambique	43.4	Cameroon	42.7
39	Sierra Leone	40.1	Djibouti	40.4	Chad	42.2
40	Mozambique	40.1	Cameroon	39.4	Djibouti	40.2
41	Chad	38.2	Nigeria	39.2	Angola	38.4
42	Congo, Democratic Republic	35.4	Sierra Leone	38.3	Sierra Leone	38.3
43	Eritrea	34.8	Chad	38.2	Cote d'Ivoire	35.1
44	Nigeria	34.7	Congo, Democratic Republic	35.4	Guinea-Bissau	34.6
45	Equatorial Guinea	34.5	Equatorial Guinea	34.5	Sudan	31.1
46	Angola	24.0	Angola	24.6	Liberia	27.4
47	Somalia	20.0	Somalia	20.0	Congo, Democratic Republic	25.0
48	Liberia	18.4	Liberia	18.4	Somalia	20.0

Rule of Law, Transparency, and Corruption—Category Scores

Listed by Country “A” to “Z”

	2000	2002	2005	2006
Angola	24.0	24.6	38.4	38.4
Benin	61.5	59.6	52.3	52.3
Botswana	80.9	82.6	82.0	81.6
Burkina Faso	58.9	50.5	58.5	56.5
Burundi	46.3	46.3	47.9	48.3
Cameroon	40.7	39.4	42.7	43.3
Cape Verde	77.4	73.7	80.4	86.1
Central African Republic	48.4	48.4	45.4	42.7
Chad	38.2	38.2	42.2	40.1
Comoros	50.7	50.7	51.4	52.8
Congo	46.0	46.0	47.8	43.5
Congo, Democratic Rep.	35.4	35.4	25.0	24.3
Cote d’Ivoire	48.2	46.2	35.1	36.0
Djibouti	40.4	40.4	40.2	43.6
Equatorial Guinea	34.5	34.5	44.6	43.3
Eritrea	34.8	59.8	58.5	56.6
Ethiopia	43.3	49.8	49.1	47.9
Gabon	50.7	59.2	55.2	56.4
Gambia	60.5	60.5	56.8	54.7
Ghana	63.8	70.5	70.5	72.7
Guinea	48.5	50.3	51.0	51.0
Guinea-Bissau	48.6	48.6	34.6	34.6
Kenya	53.5	54.7	56.7	56.0
Lesotho	67.7	69.5	66.8	69.3
Liberia	18.4	18.4	27.4	26.8
Madagascar	45.3	51.3	54.7	57.3
Malawi	66.5	63.8	63.2	64.0
Mali	57.3	57.3	51.4	50.0
Mauritania	70.1	71.9	62.2	58.8
Mauritius	78.7	78.1	82.7	80.5
Mozambique	40.1	43.4	46.6	50.4
Namibia	90.5	85.8	74.1	76.7
Niger	48.5	48.5	50.5	51.7
Nigeria	34.7	39.2	44.5	48.2
Rwanda	46.1	49.8	44.0	46.0
Sao Tome and Principe	55.0	55.0	51.8	55.6
Senegal	62.9	64.9	65.0	66.2
Seychelles	78.0	78.0	74.4	80.4
Sierra Leone	40.1	38.3	38.3	37.3
Somalia	20.0	20.0	20.0	8.2
South Africa	76.1	74.1	75.4	78.1
Sudan	40.9	44.2	31.1	29.8
Swaziland	51.2	47.5	51.6	56.9
Tanzania	56.6	54.9	57.6	59.6
Togo	47.5	47.5	46.1	47.1
Uganda	53.4	55.4	55.0	55.8
Zambia	60.5	59.9	60.5	60.5
Zimbabwe	52.8	45.1	45.8	44.6

Rule of Law, Transparency, and Corruption—Rank

Listed by Country “A” to “Z”

	2000	2002	2005	2006
Angola	46	46	41	41
Benin	12	15	21	24
Botswana	2	2	2	2
Burkina Faso	15	24	13	17
Burundi	31	33	29	29
Cameroon	37	40	38	37
Cape Verde	5	6	3	1
Central African Republic	28	30	34	39
Chad	41	43	39	40
Comoros	24	23	25	23
Congo	33	35	30	36
Congo, Democratic Rep.	42	44	47	47
Cote d'Ivoire	29	34	43	43
Djibouti	38	39	40	35
Equatorial Guinea	45	45	35	38
Eritrea	43	14	14	16
Ethiopia	35	26	28	31
Gabon	23	16	18	18
Gambia	14	12	16	22
Ghana	10	8	7	7
Guinea	27	25	26	26
Guinea-Bissau	25	28	44	44
Kenya	19	21	17	19
Lesotho	8	9	8	8
Liberia	48	48	46	46
Madagascar	34	22	20	14
Malawi	9	11	10	10
Mali	16	17	24	28
Mauritania	7	7	11	13
Mauritius	3	3	1	3
Mozambique	40	38	31	27
Namibia	1	1	6	6
Niger	26	29	27	25
Nigeria	44	41	36	30
Rwanda	32	27	37	33
Sao Tome and Principe	18	19	22	21
Senegal	11	10	9	9
Seychelles	4	4	5	4
Sierra Leone	39	42	42	42
Somalia	47	47	48	48
South Africa	6	5	4	5
Sudan	36	37	45	45
Swaziland	22	31	23	15
Tanzania	17	20	15	12
Togo	30	32	32	32
Uganda	20	18	19	20
Zambia	13	13	12	11
Zimbabwe	21	36	33	34

Rule of Law, Transparency, and Corruption Summary of Indicators and Principal Sources

Sub-Category 1: Ratification of Critical Legal Norms		
1	Ratification of core international human rights conventions	Our coding based on information from the Office of the United Nations High Commissioner for Human Rights (OHCHR)
2	The presence of international sanctions	Our coding based on information from the UN Security Council
3	Clear law on contracts and property rights	The “Property Rights Index” of the Index of Economic Freedom, produced by the Heritage Foundation and <i>Wall Street Journal</i> .
Sub-Category 2: Existence of Independent and Efficient Judicial Systems		
4	Judicial independence	The “rule of law” sub-score from the civil liberties index of Freedom House’s <i>Freedom in the World</i>
5	Efficiency of the courts, measured by the number of pre-trial detainees as a percentage of all detainees	International Centre for Prison Studies and our own in-country data collection
6	Efficiency of national institutions regarding contract enforcement	Contract enforcement measure from the World Bank’s <i>Doing Business</i> study
Sub-Category 3: Corruption		
7	Public sector corruption	Transparency International’s Corruption Perceptions Index (CPI) and the Internet Center for Corruption Research

Rule of Law, Transparency, and Corruption

	Indicator	ANG	BEN	BOT	BFO	BUR	CAM	CV	CAR	CHD	COM	CON	DRC	CdI	DJI	EQG	ERI	ETH	GAB	GAM	GHA
a) Ratification of Critical Legal Norms	Ratification of Core International Human Rights Conventions	4	6	5	7	6	6	7	5	6	3	6	6	6	5	6	5	6	6	5	7
	International Sanctions	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0
	Property Rights Index	30	30	70	30	30	30	70	30	30		10	10	30	30	30		30	50	30	50
b) Judicial Independence and Efficiency	Judicial Independence using Freedom House's "Rule of Law" Sub-Score	4	12	13	6	4	2	14	3	1	8	2	0	3	5	1	2	4	6	7	12
	Efficiency of the Courts, based on the Pre-Trial Detainees	58.9	80.0	17.1	58.3	65.3	65.6	36.5		58.0	50.0	40.0	70.0	28.5	57.2				40.0	18.5	29.5
	Number of Days to Settle a Contract Dispute	1011	720	987	446	558	800	465	660	743	506	560	685	770	1225	553	405	690	1070	434	552
c) Corruption	Public Sector Corruption	2.2	2.7	5.4	2.9	2.5	2.4	4.9	2.0	1.8	2.6	2.1	1.9	2.1	2.9	1.9	2.8	2.4	3.3	2.3	3.7

*Note: See indicator descriptions for sources and additional information. Numbers in italics are estimates.

Summary of “Raw” Data—2006

	GUI	GNB	KEN	LES	LIB	MAD	MAW	MLI	MAU	MAS	MZM	NAM	NIR	NIG	RWA	STP	SEN	SEY	SIE	SOM	SAF	SUD	SWA	TAZ	TOG	UGA	ZAM	ZIM
	7	3	6	7	6	6	6	7	6	6	5	6	6	6	5	2	7	7	6	4	5	4	6	5	6	7	6	5
	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	1	0	0	0	0	0	0
	30	10	50	50		50	50	30	30	70	30	30	30	30	30		50		10	10	50	30	50	30	30	30	50	10
	4	8	8	11	7	9	9	10	6	13	7	10	9	5	6	12	9	11	8	0	12	0	4	10	3	7	8	1
	51.3		45.6	16.8	90.0	64.7	23.0	88.7	13.0	24.4	28.6	7.9	76.0	65.0	30.3	45.0	37.2	19.7	42.7		27.5	10.0	32.0	44.0	55.4	56.8	35.3	23.4
	276	1140	465	695	1280	871	432	860	400	750	1010	270	545	457	310	405	780	720	515		600	810	972	462	588	535	471	410
	1.9	2.2	2.1	3.3	2.1	3.2	2.7	2.7	2.6	4.7	2.8	4.5	2.6	2.2	2.8	2.7	3.6	4.5	2.1	1.4	5.1	1.8	3.3	3.2	2.3	2.8	2.6	2.1

Rule of Law, Transparency, and Corruption Summary

	Indicator	ANG	BEN	BOT	BFO	BUR	CAM	CV	CAR	CHD	COM	CON	DRC	CdI	DJI	EQG	ERI	ETH	GAB	GAM	GHA
a) Ratification of Critical Legal Norms	Ratification of Core International Human Rights Conventions	50.0	83.3	66.7	100.0	83.3	83.3	100.0	66.7	83.3	33.3	83.3	83.3	83.3	66.7	83.3	66.7	83.3	83.3	66.7	100.0
	International Sanctions	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	0.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Property Rights Index	33.3	33.3	100.0	33.3	33.3	33.3	100.0	33.3	33.3		0.0	0.0	33.3	33.3			33.3	66.7	33.3	66.7
b) Judicial Independence and Efficiency	Judicial Independence using Freedom House's "Rule of Law" Sub-Score	28.6	85.7	92.9	42.9	28.6	14.3	100.0	21.4	7.1	57.1	14.3	0.0	21.4	35.7	7.1	14.3	28.6	42.9	50.0	85.7
	Efficiency of the Courts, based on the Pre-Trial Detainees	35.1	11.3	82.2	35.7	27.8	27.5	60.3		36.1	45.1	56.4	22.5	69.3	37.0				56.4	80.6	68.2
	Number of Days to Settle a Contract Dispute	26.6	55.4	29.0	82.6	71.5	47.5	80.7	61.4	53.2	76.6	71.3	58.9	50.5	5.4	72.0	86.6	58.4	20.8	83.8	72.1
	Public Sector Corruption	24.0	34.0	88.0	38.0	30.0	28.0	78.0	20.0	16.0	32.0	22.0	18.0	22.0	38.0	18.0	36.0	28.0	46.0	26.0	54.0
Legal Norms Sub-Score	61.1	72.2	88.9	77.8	72.2	72.2	100.0	66.7	72.2	66.7	61.1	27.8	38.9	66.7	72.2	83.3	72.2	83.3	66.7	88.9	
Judicial Independence Sub-Score	30.1	50.8	68.0	53.7	42.6	29.8	80.3	41.4	32.1	59.6	47.3	27.2	47.1	26.1	39.6	50.5	43.5	40.0	71.5	75.3	
Corruption Sub-Score	24.0	34.0	88.0	38.0	30.0	28.0	78.0	20.0	16.0	32.0	22.0	18.0	22.0	38.0	18.0	36.0	28.0	46.0	26.0	54.0	
Rule of Law, Transparency, and Corruption 2006		38.4	52.3	81.6	56.5	48.3	43.3	86.1	42.7	40.1	52.8	43.5	24.3	36.0	43.6	43.3	56.6	47.9	56.4	54.7	72.7

*Note: See indicator descriptions for sources and additional information. Scores in italics are based on estimates.

of Index Scores and Category Calculation—2006

	GUI GNB	KEN LES	LIB MAD	MAW MLI	MAU MAS	MZM NAM	NIR NIG	RWA STP	SEN SEY	SIE SOM	SAF SUD	SWA TAZ	TOG UGA	ZAM ZIM
	100.0 33.3	83.3 100.0	83.3 83.3	83.3 100.0	83.3 83.3	66.7 83.3	83.3 83.3	66.7 16.7	100.0 100.0	83.3 50.0	66.7 50.0	83.3 66.7	83.3 100.0	83.3 66.7
	100.0 100.0	100.0 100.0	0.0 100.0	100.0 100.0	100.0 100.0	100.0 100.0	100.0 100.0	0.0 100.0	100.0 100.0	0.0 0.0	100.0 0.0	100.0 100.0	100.0 100.0	100.0 100.0
	33.3 0.0	66.7 66.7	66.7	66.7 33.3	33.3 100.0	33.3 33.3	33.3 33.3	33.3	66.7	0.0 0.0	66.7 33.3	66.7 33.3	33.3 33.3	66.7 0.0
	28.6 57.1	57.1 78.6	50.0 64.3	64.3 71.4	42.9 92.9	50.0 71.4	64.3 35.7	42.9 85.7	64.3 78.6	57.1 0.0	85.7 0.0	28.6 71.4	21.4 50.0	57.1 7.1
	43.6	50.1 82.5	0.0 28.5	75.5 1.5	86.8 74.0	69.2 92.6	15.8 28.2	67.3 50.7	59.5 79.3	53.3	70.5 90.2	65.4 51.9	39.0 37.4	61.7 75.1
	99.4 13.9	80.7 57.9	0.0 40.5	84.0 41.6	87.1 52.5	26.7 100.0	72.8 81.5	96.0 86.6	49.5 55.4	75.7	67.3 46.5	30.5 81.0	68.5 73.8	80.1 86.1
	18.0 24.0	22.0 46.0	22.0 44.0	34.0 34.0	32.0 74.0	36.0 70.0	32.0 24.0	36.0 34.0	52.0 70.0	22.0 8.0	82.0 16.0	46.0 44.0	26.0 36.0	32.0 22.0
	77.8 44.4	83.3 88.9	41.7 83.3	83.3 77.8	72.2 94.4	66.7 72.2	72.2 72.2	33.3 58.3	88.9 100.0	27.8 16.7	77.8 27.8	83.3 66.7	72.2 77.8	83.3 55.6
	57.2 35.5	62.6 73.0	16.7 44.4	74.6 38.2	72.3 73.1	48.7 88.0	50.9 48.5	68.7 74.4	57.8 71.1	62.1 0.0	74.5 45.6	41.5 68.1	43.0 53.7	66.3 56.1
	18.0 24.0	22.0 46.0	22.0 44.0	34.0 34.0	32.0 74.0	36.0 70.0	32.0 24.0	36.0 34.0	52.0 70.0	22.0 8.0	82.0 16.0	46.0 44.0	26.0 36.0	32.0 22.0
	51.0 34.6	56.0 69.3	26.8 57.3	64.0 50.0	58.8 80.5	50.4 76.7	51.7 48.2	46.0 55.6	66.2 80.4	37.3 8.2	78.1 29.8	56.9 59.6	47.1 55.8	60.5 44.6

Category: Rule of Law, Transparency, and Corruption

Sub-Category: Ratification of Critical Legal Norms

INDICATOR: RATIFICATION OF CORE INTERNATIONAL HUMAN RIGHTS CONVENTIONS

The first measure of the Ratification of Critical Legal Norms assesses whether a country's legal norms with respect to human rights are clearly consistent with international law.

There are currently seven core conventions in force as identified by the Office of the United Nations High Commissioner for Human Rights (OHCHR).¹ These are:

- International Convention on the Elimination of All Forms of Racial Discrimination (21 December 1965)
- International Covenant on Civil and Political Rights (16 December 1966)
- International Covenant on Economic, Social and Cultural Rights (16 December 1966)
- Convention of the Elimination of All Forms of Discrimination against Women (18 December 1979)
- Convention against Torture and Other Cruel, Inhuman and Degrading Treatment or Punishment (10 December 1984)
- Convention on the Rights of the Child (20 November 1989)
- International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families (18 December 1990)

Two additional core conventions were not yet in force during the years considered in the 2008 Index of African Governance:

- International Convention for the Protection of All Persons from Enforced Disappearance
- Convention on the Rights of Persons with Disabilities

Our indicator measures ratification of each core convention by each country using information from the OHCHR. It assigns a value of 0 to 7 for each country in each year based on the number of conventions that were in force or ratified in that year.

Obviously, ratification of human rights treaties may be unrelated to respect for human rights *in practice*. In this sense, our indicator addresses inputs (formal institutions) more than outputs (respect in practice). However, our focus here is on the explicit clarity of legal norms and whether they are consistent with international norms in this key area. The Index of African Governance assesses respect for human rights *in practice* through the next indicator in this category, as well as (in more depth) through various indicators under the category of "Participation and Human Rights."

By 2006, nine countries had ratified or acceded to all seven core human rights conventions: Burkina Faso, Cape Verde, Ghana, Guinea, Lesotho, Mali, Senegal, the Seychelles, and Uganda.

¹ OHCHR, "International Law," available at <http://www2.ohchr.org/english/law/index.htm> (last accessed 5 August 2008).

Technical Notes

This indicator measures ratification of the seven core treaties that are in force. The OHCHR website lists the status of signature, ratification, and accession to each treaty.² For each country in each year and for each convention, we give a score of “0” if the country had not ratified or acceded to the convention in that year and “1” if it had.³ Accession is taken as equivalent to ratification because it “has the same legal effect as ratification, acceptance or approval,” according to the OHCHR.⁴ For each country in each year, the number of treaties ratified/acceded to is summed, giving a score between 0 and 7.

2 This information is taken from the pages on “status of ratification” of each core convention, available through the OHCHR’s “International Law” page at <http://www2.ohchr.org/english/law/index.htm> (last accessed 5 August 2008). We note some discrepancies in the information on status of ratification for the International Convention on the Protection of the Rights of All Migrant Workers and Members of their Families when comparing this information with that from another OHCHR source, the OHCHR’s “Status of Ratification of the Principal International Human Rights Treaties (as of 14 July 2006),” available at <http://www2.ohchr.org/english/bodies/docs/status.pdf> (last accessed 5 August 2008). We use the first source, which is more recent (updated 18 July 2007 for this convention) and consistent with other sources. For instance, see United Nations General Assembly, “Status of the International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families – Report of the Secretary General,” 56th session, 12 July 2001, A/56/179, or see information on the status of ratification from the Global Campaign for Ratification of the Convention on Rights of Migrants, available at <http://www.migrantsrights.org/> (last accessed 5 August 2008).

3 For conventions ratified or acceded to in a given year, coding depends on the date. Dates in the first half of the year (before 1 July) are coded as “1” and those in the second half as “0.”

4 Signature is not treated as equivalent to ratification because “signature is a preparatory step on the way to ratification.” From OHCHR, “Human Rights Treaty Bodies: Glossary of Treaty Body Terminology,” available at <http://www2.ohchr.org/english/bodies/treaty/glossary.htm> (last accessed 5 August 2008).

Ratification of Core International Human Rights Conventions

Our coding based on information from OHCHR

	SCALED DATA:											
	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	4	4	4	4	35	38	43	43	50.0	50.0	50.0	50.0
Benin	5	6	6	6	20	7	9	10	66.7	83.3	83.3	83.3
Botswana	3	5	5	5	39	27	32	33	33.3	66.7	66.7	66.7
Burkina Faso	6	6	7	7	5	7	1	1	83.3	83.3	100.0	100.0
Burundi	6	6	6	6	5	7	9	10	83.3	83.3	83.3	83.3
Cameroon	6	6	6	6	5	7	9	10	83.3	83.3	83.3	83.3
Cape Verde	7	7	7	7	1	1	1	1	100.0	100.0	100.0	100.0
Central African Republic	5	5	5	5	20	27	32	33	66.7	66.7	66.7	66.7
Chad	6	6	6	6	5	7	9	10	83.3	83.3	83.3	83.3
Comoros	2	2	3	3	43	45	46	46	16.7	16.7	33.3	33.3
Congo	5	5	6	6	20	27	9	10	66.7	66.7	83.3	83.3
Congo, Democratic Rep.	6	6	6	6	5	7	9	10	83.3	83.3	83.3	83.3
Cote d'Ivoire	6	6	6	6	5	7	9	10	83.3	83.3	83.3	83.3
Djibouti	2	2	5	5	43	45	32	33	16.7	16.7	66.7	66.7
Equatorial Guinea	4	4	6	6	35	38	9	10	50.0	50.0	83.3	83.3
Eritrea	2	5	5	5	43	27	32	33	16.7	66.7	66.7	66.7
Ethiopia	6	6	6	6	5	7	9	10	83.3	83.3	83.3	83.3
Gabon	5	6	6	6	20	7	9	10	66.7	83.3	83.3	83.3
Gambia	5	5	5	5	20	27	32	33	66.7	66.7	66.7	66.7
Ghana	3	7	7	7	39	1	1	1	33.3	100.0	100.0	100.0
Guinea	6	7	7	7	5	1	1	1	83.3	100.0	100.0	100.0
Guinea-Bissau	3	3	3	3	39	42	46	46	33.3	33.3	33.3	33.3
Kenya	5	6	6	6	20	7	9	10	66.7	83.3	83.3	83.3
Lesotho	5	6	6	7	20	7	9	1	66.7	83.3	83.3	100.0
Liberia	3	3	6	6	39	42	9	10	33.3	33.3	83.3	83.3
Madagascar	5	5	5	6	20	27	32	10	66.7	66.7	66.7	83.3
Malawi	6	6	6	6	5	7	9	10	83.3	83.3	83.3	83.3
Mali	6	6	7	7	5	7	1	1	83.3	83.3	100.0	100.0
Mauritania	2	3	6	6	43	42	9	10	16.7	33.3	83.3	83.3
Mauritius	6	6	6	6	5	7	9	10	83.3	83.3	83.3	83.3
Mozambique	5	5	5	5	20	27	32	33	66.7	66.7	66.7	66.7
Namibia	6	6	6	6	5	7	9	10	83.3	83.3	83.3	83.3
Niger	6	6	6	6	5	7	9	10	83.3	83.3	83.3	83.3
Nigeria	5	6	6	6	20	7	9	10	66.7	83.3	83.3	83.3
Rwanda	5	5	5	5	20	27	32	33	66.7	66.7	66.7	66.7
Sao Tome and Principe	1	1	2	2	48	48	48	48	0.0	0.0	16.7	16.7
Senegal	7	7	7	7	1	1	1	1	100.0	100.0	100.0	100.0
Seychelles	7	7	7	7	1	1	1	1	100.0	100.0	100.0	100.0
Sierra Leone	5	6	6	6	20	7	9	10	66.7	83.3	83.3	83.3
Somalia	4	4	4	4	35	38	43	43	50.0	50.0	50.0	50.0
South Africa	5	5	5	5	20	27	32	33	66.7	66.7	66.7	66.7
Sudan	4	4	4	4	35	38	43	43	50.0	50.0	50.0	50.0
Swaziland	2	2	6	6	43	45	9	10	16.7	16.7	83.3	83.3
Tanzania	5	5	5	5	20	27	32	33	66.7	66.7	66.7	66.7
Togo	6	6	6	6	5	7	9	10	83.3	83.3	83.3	83.3
Uganda	7	7	7	7	1	1	1	1	100.0	100.0	100.0	100.0
Zambia	6	6	6	6	5	7	9	10	83.3	83.3	83.3	83.3
Zimbabwe	5	5	5	5	20	27	32	33	66.7	66.7	66.7	66.7

Category: Rule of Law, Transparency, and Corruption

Sub-Category: Ratification of Critical Legal Norms

INDICATOR: INTERNATIONAL SANCTIONS

Ratification of Critical Legal Norms is assessed in the Index of African Governance using three criteria. This second indicator thus measures whether the situation in a country is in gross violation of international law, based on whether or not sanctions are imposed on a country by the United Nations Security Council. For each country in each year, we have assigned a value of “0” for “no sanctions” and “1” for “sanctions imposed.”

This indicator provides a very blunt measure, and because values can be only either 0 or 1, the presence of sanctions severely penalizes a country. We judge this penalty to be appropriate in all cases given that the situation in a country must be very grave for international sanctions to be imposed.

Over the years of the Index, five to seven countries have been under sanction in any one year. In 2005 and 2006, these countries were the Democratic Republic of the Congo, Côte d’Ivoire, Liberia, Rwanda, Sierra Leone, Somalia, and the Sudan. Liberia, Rwanda, Sierra Leone, and Somalia have been under sanction in all four years of the Index. In several of these countries, multiple sanctions regimes have been in place. For instance, in the case of Liberia, an arms embargo was first imposed under Resolution 788 (19 November 1992) and Security Council sanctions were established under Resolution 985 (13 April 1995). Resolution 985 was terminated pursuant to Resolution 1343 (7 March 2001), which established a new Security Council sanctions committee, panel of experts, and arms embargo. Resolution 1343 in turn was terminated pursuant to Resolution 1521 (22 December 2003). This sanctions regime was modified notably through Resolutions 1532 (12 March 2004) and 1683 (2006). Resolution 1532 froze the financial assets and economic resources of Charles Taylor and others, while 1683 modified the arms embargo imposed under 1521.

Angola was under sanction in 2000 and 2002, under Resolution 864 (1993), terminated under Resolution 1448 (9 December 2002). Eritrea and Ethiopia were under sanction in 2000, under Resolution 1298 (17 May 2000), terminated in pursuance of Presidential Statement S/PRST/2001/14 (15 May 2001).

For details of sanctions measures and documents relevant to each case, readers should refer to the UN Security Council website, under the appropriate sanctions committee.¹

Technical Notes

If sanctions are imposed in a given year, a score of “1” is assigned if they are imposed in the first half of the year (before 1 July) and “0” if they are imposed in the second half of the year (from 1 July). Similarly, if sanctions are terminated in a given year, a score of “0” is assigned if they are terminated in the first half of the year and “1” if they are terminated in the second half of the year.

This measure does not distinguish among the types of sanctions. We chose not to do so because the types of sanctions imposed may be influenced by factors other than violations of international law, such as changing views on the effectiveness of different types of sanctions.²

¹ See <http://www.un.org/sc/committees>.

² For a summary of the literature on sanctions, see for instance, Koenraad Van Brabant, “Sanctions: The Current Debate. A Summary of Selected Readings,” Humanitarian Policy Group and Relief and Rehabilitation Network at the Overseas Development Institute (London, 1999).

International Sanctions

Our coding based on information from the UN Security Council

SCALED DATA:

	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	1	1	0	0	42	44	1	1	0.0	0.0	100.0	100.0
Benin	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Botswana	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Burkina Faso	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Burundi	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Cameroon	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Cape Verde	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Central African Republic	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Chad	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Comoros	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Congo	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Congo, Democratic Rep.	0	0	1	1	1	1	42	42	100.0	100.0	0.0	0.0
Cote d'Ivoire	0	0	1	1	1	1	42	42	100.0	100.0	0.0	0.0
Djibouti	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Equatorial Guinea	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Eritrea	1	0	0	0	42	1	1	1	0.0	100.0	100.0	100.0
Ethiopia	1	0	0	0	42	1	1	1	0.0	100.0	100.0	100.0
Gabon	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Gambia	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Ghana	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Guinea	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Guinea-Bissau	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Kenya	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Lesotho	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Liberia	1	1	1	1	42	44	42	42	0.0	0.0	0.0	0.0
Madagascar	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Malawi	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Mali	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Mauritania	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Mauritius	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Mozambique	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Namibia	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Niger	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Nigeria	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Rwanda	1	1	1	1	42	44	42	42	0.0	0.0	0.0	0.0
Sao Tome and Principe	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Senegal	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Seychelles	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Sierra Leone	1	1	1	1	42	44	42	42	0.0	0.0	0.0	0.0
Somalia	1	1	1	1	42	44	42	42	0.0	0.0	0.0	0.0
South Africa	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Sudan	0	0	1	1	1	1	42	42	100.0	100.0	0.0	0.0
Swaziland	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Tanzania	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Togo	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Uganda	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Zambia	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Zimbabwe	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0

Category: Rule of Law, Transparency, and Corruption

Sub-Category: Ratification of Critical Legal Norms

INDICATOR: PROPERTY RIGHTS

Contracts and property rights are other important areas in which clear legal norms are critical. Because no acceptable measure yet exists for these important aspects of legal norms, the Index of African Governance uses as a proxy the “Property Rights Index” developed as one of the ten sub-components of the Index of Economic Freedom, produced by the Heritage Foundation and *Wall Street Journal*. The Property Rights Index rates the degree to which a country’s laws protect and enforce private property rights.¹ The “Property Rights Index” is based on coding by the authors of the Index of Economic Freedom, with values (in increments of 10) from 0 (worst) to 100 (best).

The countries with the consistently strongest property rights in the region according to this measure are Botswana and Mauritius. Other countries with comparatively strong property rights include Cape Verde, Gabon, Ghana, Kenya, Lesotho, Madagascar, Malawi, Senegal, South Africa, Swaziland, and Zambia. Countries with the weakest property rights include Congo, the Democratic Republic of the Congo, Equatorial Guinea, Guinea-Bissau, Sierra Leone, Somalia, and Zimbabwe.

Technical Notes

The Index of Economic Freedom is based on a particular ideology, thus making many of its components inappropriate for use in the Index of African Governance. However, in the case of the “Property Rights Index,” the methodology of coding was close enough to ours for this indicator to be incorporated, especially given the lack of other appropriate measures. Beach and Kane describe the methodology for the “Property Rights Index” as follows:

This factor scores the degree to which a country’s laws protect private property rights and the degree to which its government enforces those laws. It also assesses the likelihood that private property will be expropriated and analyzes the independence of the judiciary, the existence of corruption within the judiciary, and the ability of individuals and businesses to enforce contracts. The less certain the legal protection of property, the lower a country’s score; similarly, the greater the chances of government expropriation of property, the lower a country’s score.²

Complete criteria can be found in Beach and Kane, “Methodology.” The following are descriptions of selected scores:

- **100%**—Private property is guaranteed by the government. The court system enforces contracts efficiently and quickly. The justice system punishes those who unlawfully confiscate private property. There is no corruption or expropriation....
- **70%**—Private property is guaranteed by the government. The court system is subject to delays and is lax in enforcing contracts. Corruption is possible but rare, and expropriation is unlikely....
- **50%**—The court system is inefficient and subject to delays. Corruption may be present, and the judiciary may be influenced by other branches of government. Expropriation is possible but rare....
- **30%**—Property ownership is weakly protected. The court system is highly inefficient. Corruption is extensive, and the judiciary is strongly influenced by other branches of government. Expropriation is possible. ...
- **10%**—Private property is rarely protected, and almost all property belongs to the state. The country is in such chaos (for example, because of ongoing war) that protection of property is almost impossible to enforce. The judiciary is so corrupt that property is not protected effectively. Expropriation is common.
- **0%**—Private property is outlawed, and all property belongs to the state. People do not have the right to sue others and do not have access to the courts. Corruption is endemic.³

1 It also evaluates the efficiency of the courts as part of its coding (for more information, see below).

2 William W. Beach and Tim Kane, “Methodology: Measuring the Ten Economic Freedoms,” *2008 Index of Economic Freedom*, Heritage Foundation and *Wall Street Journal* (2008), 51–52.

3 Ibid.

For 2008, the Index of Economic Freedom notes the use of the following sources in its coding: “Economist Intelligence Unit, *Country Commerce*, 2005–2007; U.S. Department of Commerce, *Country Commercial Guide*, 2005–2007; U.S. Department of State, *Country Reports on Human Rights Practices*, 2005–2007; and U.S. Department of State, *Investment Climate Statements 2007*.”⁴

The “Property Rights Index” contains no scores for the Comoros, Eritrea, Liberia, São Tomé and Príncipe, and the Seychelles.

Scores for Angola and Burundi are missing for 2001 to 2005. We estimate values for both countries for 2002 and 2005 at 30, based on 2000 and 2006 scores (which are all 30).

Scores for Sierra Leone are missing for 2001 and 2002. We estimate the 2002 score at 10 based on the 2003 score.

Scores for the Central African Republic are missing for 1995 to 2001. We estimate the 2000 score at 50 based on the 2002 score.

Scores for the Democratic Republic of the Congo, Somalia, and the Sudan are missing since 2001. We roughly estimate scores for 2002, 2005, and 2006 based on 2000 scores (10, 10, and 30 respectively).

⁴ Ibid., 52.

Property Rights

Index of Economic Freedom (Heritage Foundation and *Wall Street Journal*)

	SCALED DATA:											
	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	30	30	30	30	23	20	14	14	33.3	33.3	33.3	33.3
Benin	50	30	30	30	6	20	14	14	66.7	33.3	33.3	33.3
Botswana	70	70	70	70	1	1	1	1	100.0	100.0	100.0	100.0
Burkina Faso	50	30	30	30	6	20	14	14	66.7	33.3	33.3	33.3
Burundi	30	30	30	30	23	20	14	14	33.3	33.3	33.3	33.3
Cameroon	30	30	30	30	23	20	14	14	33.3	33.3	33.3	33.3
Cape Verde	70	50	50	70	1	4	3	1	100.0	66.7	66.7	100.0
Central African Republic	50	50	30	30	6	4	14	14	66.7	66.7	33.3	33.3
Chad	30	30	30	30	23	20	14	14	33.3	33.3	33.3	33.3
Comoros												
Congo	30	30	30	10	23	20	14	38	33.3	33.3	33.3	0.0
Congo, Democratic Rep.	10	10	10	10	39	38	39	38	0.0	0.0	0.0	0.0
Cote d'Ivoire	30	30	30	30	23	20	14	14	33.3	33.3	33.3	33.3
Djibouti	50	50	30	30	6	4	14	14	66.7	66.7	33.3	33.3
Equatorial Guinea	10	10	30	30	39	38	14	14	0.0	0.0	33.3	33.3
Eritrea												
Ethiopia	30	30	30	30	23	20	14	14	33.3	33.3	33.3	33.3
Gabon	50	50	50	50	6	4	3	4	66.7	66.7	66.7	66.7
Gambia	50	50	30	30	6	4	14	14	66.7	66.7	33.3	33.3
Ghana	50	50	50	50	6	4	3	4	66.7	66.7	66.7	66.7
Guinea	30	30	30	30	23	20	14	14	33.3	33.3	33.3	33.3
Guinea-Bissau	10	10	10	10	39	38	39	38	0.0	0.0	0.0	0.0
Kenya	50	50	50	50	6	4	3	4	66.7	66.7	66.7	66.7
Lesotho	50	50	50	50	6	4	3	4	66.7	66.7	66.7	66.7
Liberia												
Madagascar	50	50	50	50	6	4	3	4	66.7	66.7	66.7	66.7
Malawi	50	50	50	50	6	4	3	4	66.7	66.7	66.7	66.7
Mali	50	50	30	30	6	4	14	14	66.7	66.7	33.3	33.3
Mauritania	30	30	30	30	23	20	14	14	33.3	33.3	33.3	33.3
Mauritius	70	70	70	70	1	1	1	1	100.0	100.0	100.0	100.0
Mozambique	30	30	30	30	23	20	14	14	33.3	33.3	33.3	33.3
Namibia	70	70	30	30	1	1	14	14	100.0	100.0	33.3	33.3
Niger	30	30	30	30	23	20	14	14	33.3	33.3	33.3	33.3
Nigeria	30	30	30	30	23	20	14	14	33.3	33.3	33.3	33.3
Rwanda	10	30	30	30	39	20	14	14	0.0	33.3	33.3	33.3
Sao Tome and Principe												
Senegal	50	50	50	50	6	4	3	4	66.7	66.7	66.7	66.7
Seychelles												
Sierra Leone	30	10	10	10	23	38	39	38	33.3	0.0	0.0	0.0
Somalia	10	10	10	10	39	38	39	38	0.0	0.0	0.0	0.0
South Africa	50	50	50	50	6	4	3	4	66.7	66.7	66.7	66.7
Sudan	30	30	30	30	23	20	14	14	33.3	33.3	33.3	33.3
Swaziland	70	50	50	50	1	4	3	4	100.0	66.7	66.7	66.7
Tanzania	50	30	30	30	6	20	14	14	66.7	33.3	33.3	33.3
Togo	30	30	30	30	23	20	14	14	33.3	33.3	33.3	33.3
Uganda	50	50	30	30	6	4	14	14	66.7	66.7	33.3	33.3
Zambia	50	50	50	50	6	4	3	4	66.7	66.7	66.7	66.7
Zimbabwe	30	10	10	10	23	38	39	38	33.3	0.0	0.0	0.0

Category: Rule of Law, Transparency, and Corruption

Sub-Category: Judicial Independence and Efficiency

INDICATOR: JUDICIAL INDEPENDENCE

Judicial independence is a key component of the rule of law. An ideal measure for the purposes of the Index would take into account both law and practice—that is, not only whether judicial independence is addressed in the constitution and other legal documents, but also whether judicial independence is respected in practice over a range of different situations and potential challenges. Measurement of judicial independence in this sense is no easy task. Several on-going projects are engaged in the task of collecting data and systematizing measurement tools.

In the absence of these ideal measures, in this year, we approximate a measure of judicial independence using the Rule of Law sub-score from Freedom House's *Freedom in the World* for 2006 and 2007. The Rule of Law sub-score is a composite measure based on detailed expert surveys. It is one of four sub-scores that make up the civil liberties index, along with Freedom of Expression and Belief, Associational and Organizational Rights, and Personal Autonomy and Individual Rights. The Rule of Law sub-score is intended to assess the independence of the judiciary, civilian control of the police, protection from political terror, and equal treatment across various groups. It thus incorporates a broader range of issues than judicial independence.¹

In 2006, countries with the worst rule of law scores in the region included the Democratic Republic of the Congo, Somalia, and the Sudan (with scores of 0), followed by Chad, Equatorial Guinea, and Zimbabwe (with scores of 1). Countries with the best rule of law scores included Cape Verde (with a score of 14), followed by Botswana and Mauritius (with scores of 13).

Technical Notes

Although Freedom House has offered *Freedom in the World* scores since 1973, it has not released sub-scores for years before 2005 (from the 2006 *Freedom in the World*).

Given the lack of available data before 2005, the 2005 values are used as rough estimates of the 2000 and 2002 values. This estimation method is less problematic than it might seem initially. As the 2005 and 2006 figures suggest, measured changes year to year have been slight. For all countries, the correlation between the 2005 and 2006 data is 0.99. For sub-Saharan African countries, the correlation is 0.98. Analysis of the civil liberties index scores from 2000 to 2006 is also suggestive: for all countries, the correlation of the data year to year is 0.97 or above, and the correlation between 2000 and 2005 scores is 0.93. Looking only at the data for sub-Saharan Africa, correlations are lower, but are still high: over 0.91 year to year and 0.86 between 2000 and 2005.

¹ Since aspects of these other issues are also incorporated elsewhere in the Index of African Governance, it could be argued that the Rule of Law sub-score places additional weight on these topics.

Judicial Independence

Freedom House's "Rule of Law" Sub-Score from *Freedom in the World* 2006 and 2007

	RAW DATA:				SCALED DATA:				SCALED OVERALL 0-100			
					Ranked							
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	4	4	4	4	32	32	32	32	28.6	28.6	28.6	28.6
Benin	12	12	12	12	5	5	5	4	85.7	85.7	85.7	85.7
Botswana	13	13	13	13	3	3	3	2	92.9	92.9	92.9	92.9
Burkina Faso	6	6	6	6	26	26	26	26	42.9	42.9	42.9	42.9
Burundi	4	4	4	4	32	32	32	32	28.6	28.6	28.6	28.6
Cameroon	2	2	2	2	41	41	41	40	14.3	14.3	14.3	14.3
Cape Verde	14	14	14	14	1	1	1	1	100.0	100.0	100.0	100.0
Central African Republic	3	3	3	3	37	37	37	37	21.4	21.4	21.4	21.4
Chad	2	2	2	1	41	41	41	43	14.3	14.3	14.3	7.1
Comoros	8	8	8	8	16	16	16	17	57.1	57.1	57.1	57.1
Congo	2	2	2	2	41	41	41	40	14.3	14.3	14.3	14.3
Congo, Democratic Rep.	0	0	0	0	47	47	47	46	0.0	0.0	0.0	0.0
Cote d'Ivoire	3	3	3	3	37	37	37	37	21.4	21.4	21.4	21.4
Djibouti	5	5	5	5	30	30	30	30	35.7	35.7	35.7	35.7
Equatorial Guinea	1	1	1	1	44	44	44	43	7.1	7.1	7.1	7.1
Eritrea	3	3	3	2	37	37	37	40	21.4	21.4	21.4	14.3
Ethiopia	5	5	5	4	30	30	30	32	35.7	35.7	35.7	28.6
Gabon	7	7	7	6	23	23	23	26	50.0	50.0	50.0	42.9
Gambia	8	8	8	7	16	16	16	22	57.1	57.1	57.1	50.0
Ghana	12	12	12	12	5	5	5	4	85.7	85.7	85.7	85.7
Guinea	4	4	4	4	32	32	32	32	28.6	28.6	28.6	28.6
Guinea-Bissau	8	8	8	8	16	16	16	17	57.1	57.1	57.1	57.1
Kenya	8	8	8	8	16	16	16	17	57.1	57.1	57.1	57.1
Lesotho	11	11	11	11	8	8	8	8	78.6	78.6	78.6	78.6
Liberia	7	7	7	7	23	23	23	22	50.0	50.0	50.0	50.0
Madagascar	9	9	9	9	15	15	15	13	64.3	64.3	64.3	64.3
Malawi	8	8	8	9	16	16	16	13	57.1	57.1	57.1	64.3
Mali	11	11	11	10	8	8	8	10	78.6	78.6	78.6	71.4
Mauritania	6	6	6	6	26	26	26	26	42.9	42.9	42.9	42.9
Mauritius	14	14	14	13	1	1	1	2	100.0	100.0	100.0	92.9
Mozambique	6	6	6	7	26	26	26	22	42.9	42.9	42.9	50.0
Namibia	10	10	10	10	11	11	11	10	71.4	71.4	71.4	71.4
Niger	10	10	10	9	11	11	11	13	71.4	71.4	71.4	64.3
Nigeria	4	4	4	5	32	32	32	30	28.6	28.6	28.6	35.7
Rwanda	6	6	6	6	26	26	26	26	42.9	42.9	42.9	42.9
Sao Tome and Principe	12	12	12	12	5	5	5	4	85.7	85.7	85.7	85.7
Senegal	10	10	10	9	11	11	11	13	71.4	71.4	71.4	64.3
Seychelles	11	11	11	11	8	8	8	8	78.6	78.6	78.6	78.6
Sierra Leone	8	8	8	8	16	16	16	17	57.1	57.1	57.1	57.1
Somalia	3	3	3	0	37	37	37	46	21.4	21.4	21.4	0.0
South Africa	13	13	13	12	3	3	3	4	92.9	92.9	92.9	85.7
Sudan	0	0	0	0	47	47	47	46	0.0	0.0	0.0	0.0
Swaziland	4	4	4	4	32	32	32	32	28.6	28.6	28.6	28.6
Tanzania	10	10	10	10	11	11	11	10	71.4	71.4	71.4	71.4
Togo	1	1	1	3	44	44	44	37	7.1	7.1	7.1	21.4
Uganda	7	7	7	7	23	23	23	22	50.0	50.0	50.0	50.0
Zambia	8	8	8	8	16	16	16	17	57.1	57.1	57.1	57.1
Zimbabwe	1	1	1	1	44	44	44	43	7.1	7.1	7.1	7.1

Category: Rule of Law, Transparency, and Corruption

Sub-Category: Judicial Independence and Efficiency

INDICATOR: EFFICIENCY OF THE COURTS

A second indicator of Judicial Independence and Efficiency focuses on the speed and efficiency with which those who are arrested are brought to trial. This indicator is estimated using the number of pre-trial detainees/remand prisoners as a percentage of the total prison population.

Our primary source of information has been the King's College London, International Centre for Prison Studies, specifically the "World Pre-trial/Remand Imprisonment List," by Roy Walmsley, January 2008.¹ This List is compiled from a variety of sources, but "in almost all cases the original source is the national prison administration of the country concerned, or else the Ministry responsible for prison administration."² In addition, we have collected additional information through our own Index of African Governance research at the individual national level. Figures for about a quarter of the countries in the 2008 Index are drawn from, or compared against, our own original research.

In the 2008 Index of African Governance, the numbers of pre-trial detainees as a percentage of the total prison population range from a low of 1.3 percent (the Seychelles in 1999) to a high of about 90 percent (Liberia in 2006). Looking at information on pre-trial detention around the world, Walmsley finds that "in a majority of countries (59%) the proportion of the total prison population who are in pre-trial/remand imprisonment is between 10 percent and 40 percent. But in almost half of African countries a majority of the prison population are pre-trial/remand prisoners..."³ The numbers presented here similarly suggest that pre-trial detainees make up over 40 percent of the total prison population on average across the sub-Saharan African countries for which such statistics are available.⁴

Looking at changes over time, Mozambique shows the largest improvements, with rates falling from 72.9 percent in 1999 to 53 percent in 2005 to about 30 percent in 2006 and 2007. Several of the sources of these data have also highlighted these dramatic changes. The Open Society Initiative for Southern Africa's (OSISA) 2006 report, *Mozambique: Justice Sector and the Rule of Law* (London), noted that "in practice, the period from arrest to trial may be even longer than prescribed by law, as one of the predominant characteristics of the Mozambican criminal justice system is enormous procedural delay in bringing cases to trial." It continues: "The extent of the problem is reflected in the high number of pre-trial prisoners as a percentage of total prison population, although there have been some recent improvements..." (p. 108). According to the Agencia de Informação de Moçambique (Maputo), "Crime Rate Falling, Claims Attorney-General" (18 April 2007): "In the past, the majority of people in Mozambican jails were pre-trial detainees, and only a minority had been found guilty of any crime. But the situation has now been reversed...The improvement in the prison statistics is probably due to the unification of the prison system. In the past, both the justice and the interior ministries ran prisons—now all the country's jails fall under the authority of the Ministry of Justice."⁵ Further research into these dramatic improvements would be useful.

Technical Notes

For most African countries, estimates of pre-trial detainees are not available for each year. The estimates given for each country are the best available, from various years, 1999–2007, as noted. From these data, we use the closest year's estimate available for each Index year. In the datasheet for this indicator, numbers for different years are given in italics.

The table and footnotes below give the source of each country's estimate(s). In the table, a semicolon indicates figures drawn from different sources. ICPS's website posts the most recent information available; however, the ICPS does not currently maintain public archives of numbers for earlier years, so several different ICPS sources were consulted: "ICPS 2007" refers

1 See <http://www.prisonstudies.org>.

2 Walmsley, 1. The list provides the latest available information as of October 2007. The ICPS also provides some more updated information through the "World Prison Brief" country studies, which are used for some countries and years, as noted below. See <http://www.kcl.ac.uk/depsta/law/research/icps/worldbrief/> (last accessed 3 August 2008). See also ICPS, (January 2005), "Guidance Note 5: Pre-Trial Detention."

3 Walmsley, 1.

4 In other words, all countries except the Central African Republic, Equatorial Guinea, Eritrea, Ethiopia, Guinea-Bissau, and Somalia.

5 Available at allafrica.com.

to ICPS figures downloaded by our team on 11 July 2007, “ICPS 2008a” refers to Roy Walmsley’s “World Pre-trial/Remand Imprisonment List” (January 2008), “ICPS 2008b” refers to information from the relevant country’s Prison Brief (updated 20 May 2008), and “ICPS 2008c” refers to information from the relevant country’s Prison Brief (updated 30 July 2008). Other references are given as footnotes.

The Index of African Governance itself attempted to collect data directly on this indicator for all countries. However, many governments did not make these data available, and, in several countries, estimates that our researchers collected were inconsistent with those provided by other sources and thus were judged unreliable. Therefore, we use estimates collected directly by our researchers (as given below) only when we judge them to be consistent with other available estimates.

Pre-Trial Detainees/Remand Prisoners as a Percentage of the Total Prison Population

Country	Year(s)	Estimate(s) (%)	Source(s)
Angola	2003	58.9	ICPS 2008a
Benin	1999; 2005, 2006; 2007	64.5; c.69.9, c.80; 79.6	ICPS 2008a; Ministry of Justice; ICPS 2008c ⁶
Botswana	2004; 2007	25.1; 17.1	ICPS 2007; ICPS 2008a
Burkina Faso	2001	58.3	ICPS 2008a
Burundi	2005, 2006; 2007	60.7, 65.3; 66.8	ICPS 2008a; Ministry of Justice ⁷
Cameroon	2003; 2004/05	c.65; 65.6	ICPS 2008a; Ministry of Justice ⁸
Cape Verde	1999	36.5	ICPS 2008a ⁹
Central African Republic			Unavailable ¹⁰
Chad	2005	58.0	ICPS 2008a
Comoros	1998	c.50	ICPS 2008a ¹¹
Congo	2006	c.40	ICPS 2008a
Congo, Democratic Republic	2004	c.70	ICPS 2008a
Côte d’Ivoire	2002; 2007	35.6; 28.5	ICPS 2008a; ICPS 2008b
Djibouti	1999	57.2	ICPS 2008a
Equatorial Guinea			Unavailable
Eritrea			Unavailable
Ethiopia			Unavailable
Gabon	2006	c. 40	ICPS 2008c
Gambia	1999	18.5	ICPS 2008a
Ghana	2005, 2006	26, 29.5	Ghana Prisons Service ¹²
Guinea	2002	51.3	ICPS 2008a ¹³
Guinea-Bissau			Unavailable ¹⁴
Kenya	2006	45.6	ICPS 2008a
Lesotho	2005; 2007	16.3; 16.8	ICPS 2007; ICPS 2008c
Liberia	2006; August 2007	c.90; 97.3	U.S. State Department; ICPS 2008c ¹⁵
Madagascar	1999; 2005, 2006	65.4; 65.0, 64.7	ICPS 2007; Ministry of Justice ¹⁶
Malawi	2005; 2006; 2007	23.2; 23; 17.3	ICPS 2007; Prison Population Daily Statistics Report; ICPS 2008a ¹⁷
Mali	2002; 2004	67.2; 88.7	ICPS 2007; ICPS 2008c
Mauritania	2003	c.13	ICPS 2008b
Mauritius	2005; (27 March) 2007	34.3; 24.4	ICPS 2007; ICPS 2008a

Mozambique	1999; 2005; 2006; 2007	72.9; 53; 28.6; c.30	ICPS 2008a; OSISA; Agencia de Informação de Moçambique; ICPS 2008b ¹⁸
Namibia	2001; 2007	5.2; 7.9	ICPS 2008a; ICPS 2008c
Niger	2006	c. 76	ICPS 2008a
Nigeria	2004; 2007	64.3; 65.0	ICPS 2007; ICPS 2008a
Rwanda	2002	30.3	ICPS 2008a ¹⁹
São Tomé and Príncipe	2005; 2006; 2007	75.0; 45.0; c.34	ICPS 2007; ICPS 2008a; ICPS 2008b
Senegal	2002; 2007	33.1; 37.2	ICPS 2007; ICPS 2008a
Seychelles	1999; 2006; 2007	1.3; 19.7; 40.3	ICPS 2007; ICPS 2008a; ICPS 2008c
Sierra Leone	2005; 2006; 2007	40; c.42.7; 53.7	ICPS 2007; ICPS 2008a; ICPS 2008b
Somalia			Unavailable
South Africa	2000, 2002, 2003, 2004, 2005, September 2006; 2007; 31 January 2008	33.9, 28.6, 27.0, 26.6, 28.9, 27.5; 30.0; 32.2	Presidency of the Republic of South Africa; ICPS 2008a; ICPS 2008b ²⁰
Sudan	2003	c.10.0	ICPS 2008a
Swaziland	2006; 2007	32.0; 31.5	ICPS 2007; ICPS 2008a
Tanzania	2006	44.0	ICPS 2008a
Togo	1998	55.4	ICPS 2008a
Uganda	2005; 2007	58; 56.8	ICPS 2007; ICPS 2008a
Zambia	2005	35.3	ICPS 2008a
Zimbabwe	2005; 2007	29.7; 23.4	ICPS 2007; ICPS 2008a

- 6 2005 and 2006 figures are based on country research: According to Edgar Vihou, Chef service statistique à la direction de la programmation et de la prospective, Ministry of Justice, absolute figures were 4,079 for 2005 and 4,668 for 2006. ICPS 2008b gives the total prison population (including pre-trial detainees/remand prisoners) at 5,834 on 16.5.2006, according to the national prison administration. The estimates given assume this prison population for both years 2005 and 2006. These figures suggest rates of 69.9 percent for 2005 and 80 percent for 2006.
- 7 2005 and 2006 figures are based on country research. Source cited is Ministère de la Justice, Direction Générale des Affaires Pénitentiaires, *Rapport Annuel, Exercices 2005 and 2006*. ICPS 2007 also gives a 2005 figure of 60.7 percent.
- 8 Country research: 65.6 percent (or 14,913 of 22,734) based on Ministry of Justice statistics for the judicial year 2004/2005. 2006 figures were unavailable locally as of February 2008.
- 9 Country research: 2005 and 2006 figures are reportedly compiled, but not yet made public, from the Cabinet of Studies, Legislation and Documentation (Gabinete de Estudos Legislação e Documentação – GELD) of the Ministry of Justice.
- 10 According to the ICPS 2008b, “In October 2007 in the two prisons in the capital, Bangui, pre-trial detainees comprised 49 percent of Ngaragba’s prison population of 476 and about 80% of the prison population in Bimbo, the central prison for women - U.S. State Department human rights report.” No national estimate is available.
- 11 Country research: According to a source at the Service Penitencier National, there were 120 and 135 detainees in 2006 and 2007, respectively. However, the total prison population is unavailable. ICPS 2008c gives the total prison population (including pre-trial detainees/remand prisoners) at c.200 in 1998 (criminal justice expert, the Comoros).
- 12 Country research: Estimate is based on information from the Ghana Prisons Service, *Annual Report 2005* (Accra, 2005), 21, and *Annual Report 2006* (Accra, 2006), 17. ICPS 2008a figure for 2006 is similar, 29 percent.

- 13 Country research: Sources suggest that the total number of detainees registered in Conakry were 1,755 in 2005 and 1,760 in 2006, and that more than 85–95 percent of these were still awaiting judgment.
- 14 According to ICPS 2008c, “The country does not have formal prisons [circa 2006]. Most prisoners are detained in makeshift detention facilities on military bases in Bissau and neighbouring cities. - U.S. State Department Human Rights Report.”
- 15 U.S. Department of State, *Country Reports on Human Rights Practices 2006*, released 6 March 2007, available at <http://www.state.gov/g/drl/rls/hrrpt/2006/78742.htm> (last accessed 11 June 2008). The first figure is based on Monrovia Central Prison, the largest prison, but is broadly consistent with ICPS 2007 estimate of 91.1 (see 2007 Index of African Governance). Our country research estimates from Monrovia Central Prison give 25 percent for 2005 and 20 percent for 2006. These figures, however, appear inconsistent with other sources. For instance, according to the U.S. *Country Reports on Human Rights Practices 2007*, released 11 March 2008, available at <http://www.state.gov/g/drl/rls/hrrpt/2007/100489.htm> (last accessed 11 June 2008): “Approximately 95 percent of prisoners at Monrovia Central Prison were pretrial detainees. In some cases the length of pretrial detention equaled or exceeded the length of sentence that could be imposed for the crime. Trial delays were caused by judicial inefficiency, lack of court facilities and qualified judges, and corruption.”
- 16 Country research: From the Annual Report 2005 and 2006 of the Ministry of Justice, Direction of Penitentiary Administration, as provided to us by the General Secretary of the Madagascar Action Plan, Presidency of the Republic of Madagascar. The 2006 figure is also equivalent to the figure provided by ICPS 2008a.
- 17 The estimate for 2005 is also consistent with the 23 percent estimate from our country research based on Prison Population Daily Statistics Report of 16 August 2005. The estimate for 2006 is from our country research based on Prison Population Daily Statistics Report of 16 December 2006.
- 18 The 1999 estimate is from ICPS 2008a is consistent with the figure of 72.9 percent for 2000 given in Open Society Initiative for Southern Africa (OSISA), *Mozambique: Justice Sector and the Rule of Law* (London, 2006), 108, based on UNDP, *The Prison System in Mozambique*, December 2000. The 2005 estimate is from OSISA, *Mozambique*, 108, based on Government of Mozambique, *Balanço do PES 2005* (Maputo), 107. The 2006 estimate is based on information from Agencia de Informação de Moçambique (Maputo), “Crime Rate Falling, Claims Attorney-General,” 18 April 2007, available at allafrica.com. Additional country research in Mozambique also recorded the following figures based on the *Anuário Estatístico 2005* (p. 52): for 2005, 13,079 remand prisoners and 4,690 sentenced prisoners, and for 2006, 12,759 remand prisoners and 5,036 sentenced prisoners. These numbers suggest different rates of pre-trial detention. The above figures are used because they are more consistent with most sources reviewed.
- 19 This figure excludes genocide suspects. In the 2007 Index of African Governance, we used the ICPS 2007 figure of 2.4 percent for 2002, which presumably included genocide suspects.
- 20 Figures for 2000–2006 are from Presidency of the Republic of South Africa, *Development Indicators: Mid-term Review* (2007), 62. Data source is “Department of Correctional Services, *Annual Report 2005/06*, communication with Department.”

Efficiency of the Courts, based on Pre-Trial Detainees as a Percentage of the Total Prison Population

International Centre for Prison Studies, supplemented with other sources

	RAW DATA:				SCALED DATA:							
					Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	58.9	58.9	58.9	58.9	31	31	32	33	35.1	35.1	35.1	35.1
Benin	64.5	64.5	69.9	80.0	34	34	37	40	28.7	28.7	22.7	11.3
Botswana	25.1	25.1	25.1	17.1	8	8	8	5	73.2	73.2	73.2	82.2
Burkina Faso	58.3	58.3	58.3	58.3	30	30	31	32	35.7	35.7	35.7	35.7
Burundi	60.7	60.7	60.7	65.3	32	32	33	36	33.0	33.0	33.0	27.8
Cameroon	65.0	65.0	65.6	65.6	35	35	36	37	28.2	28.2	27.5	27.5
Cape Verde	36.5	36.5	36.5	36.5	18	18	17	18	60.3	60.3	60.3	60.3
Central African Republic												
Chad	58.0	58.0	58.0	58.0	28	28	29	31	36.1	36.1	36.1	36.1
Comoros	50.0	50.0	50.0	50.0	24	24	24	26	45.1	45.1	45.1	45.1
Congo	40.0	40.0	40.0	40.0	19	19	19	20	56.4	56.4	56.4	56.4
Congo, Democratic Rep.	70.0	70.0	70.0	70.0	38	38	38	38	22.5	22.5	22.5	22.5
Cote d'Ivoire	35.6	35.6	35.6	28.5	17	17	16	12	61.3	61.3	61.3	69.3
Djibouti	57.2	57.2	57.2	57.2	27	27	28	30	37.0	37.0	37.0	37.0
Equatorial Guinea												
Eritrea												
Ethiopia												
Gabon	40.0	40.0	40.0	40.0	19	19	19	20	56.4	56.4	56.4	56.4
Gambia	18.5	18.5	18.5	18.5	6	6	5	6	80.6	80.6	80.6	80.6
Ghana	26.0	26.0	26.0	29.5	9	9	9	14	72.2	72.2	72.2	68.2
Guinea	51.3	51.3	51.3	51.3	25	25	25	27	43.6	43.6	43.6	43.6
Guinea-Bissau												
Kenya	45.6	45.6	45.6	45.6	23	23	23	25	50.1	50.1	50.1	50.1
Lesotho	16.3	16.3	16.3	16.8	5	5	4	4	83.1	83.1	83.1	82.5
Liberia	90.0	90.0	90.0	90.0	42	42	42	42	0.0	0.0	0.0	0.0
Madagascar	65.4	65.4	65.0	64.7	36	36	35	34	27.7	27.7	28.2	28.5
Malawi	23.2	23.2	23.2	23.0	7	7	7	8	75.3	75.3	75.3	75.5
Mali	67.2	67.2	88.7	88.7	37	37	41	41	25.7	25.7	1.5	1.5
Mauritania	13.0	13.0	13.0	13.0	4	4	3	3	86.8	86.8	86.8	86.8
Mauritius	34.3	34.3	34.3	24.4	15	15	14	10	62.8	62.8	62.8	74.0
Mozambique	72.9	72.9	53.0	28.6	39	39	26	13	19.3	19.3	41.7	69.2
Namibia	5.2	5.2	7.9	7.9	2	2	1	1	95.6	95.6	92.6	92.6
Niger	76.0	76.0	76.0	76.0	41	41	40	39	15.8	15.8	15.8	15.8
Nigeria	64.3	64.3	64.3	65.0	33	33	34	35	29.0	29.0	29.0	28.2
Rwanda	30.3	30.3	30.3	30.3	11	12	12	15	67.3	67.3	67.3	67.3
Sao Tome and Principe	75.0	75.0	75.0	45.0	40	40	39	24	16.9	16.9	16.9	50.7
Senegal	33.1	33.1	37.2	37.2	13	14	18	19	64.1	64.1	59.5	59.5
Seychelles	1.3	1.3	19.7	19.7	1	1	6	7	100.0	100.0	79.3	79.3
Sierra Leone	40.0	40.0	40.0	42.7	19	19	19	22	56.4	56.4	56.4	53.3
Somalia												
South Africa	33.9	28.6	28.9	27.5	14	10	10	11	63.2	69.2	68.9	70.5
Sudan	10.0	10.0	10.0	10.0	3	3	2	2	90.2	90.2	90.2	90.2
Swaziland	32.0	32.0	32.0	32.0	12	13	13	16	65.4	65.4	65.4	65.4
Tanzania	44.0	44.0	44.0	44.0	22	22	22	23	51.9	51.9	51.9	51.9
Togo	55.4	55.4	55.4	55.4	26	26	27	28	39.0	39.0	39.0	39.0
Uganda	58.0	58.0	58.0	56.8	28	28	29	29	36.1	36.1	36.1	37.4
Zambia	35.3	35.3	35.3	35.3	16	16	15	17	61.7	61.7	61.7	61.7
Zimbabwe	29.7	29.7	29.7	23.4	10	11	11	9	68.0	68.0	68.0	75.1

Category: Rule of Law, Transparency, and Corruption

Sub-Category: Judicial Independence and Efficiency

INDICATOR: NUMBER OF DAYS TO SETTLE A CONTRACT DISPUTE

A third indicator of Judicial Independence and Efficiency focuses on the efficiency of national institutions regarding contract enforcement. Efficiency is approximated using one measure from the World Bank's *Doing Business* project on the number of days for a contract dispute to be settled.¹ This measure looks at "the efficiency of contract enforcement by following the evolution of a sale of goods dispute...from the moment the plaintiff files the lawsuit until actual payment."² Figures are based on expert surveys and analyses, which involved a study of civil procedure and surveys of local lawyers and judges.³

In the Index of African Governance, this indicator is scaled and ranked such that countries that require the most days to enforce a contract receive the worst scores and those that require the fewest days receive the best scores. This simple assumption is made for the purposes of the Index. Readers interested in studying contract enforcement in a more nuanced way might begin with the additional information available on the *Doing Business* website.⁴

Few changes are observed in these estimates over the years of the Index. According to these data, contract disputes are settled most quickly in Namibia (270 days) and most slowly in Liberia (1,280). The average number of days to settle a contract dispute in 2006 is just under 657, which is roughly the number of days to settle contract disputes in the Central African Republic (660 days).

Technical Notes

The data in each *Doing Business* report refer to the previous year (e.g., the data in *Doing Business 2007* are for April 2006).⁵ The first *Doing Business* report was published in 2004, covering 2003. For lack of better estimates, figures from this year are used as estimates for both 2000 and 2002, unless noted below. Analysis of the available data suggests a high correlation over time on the number of days to enforce a contract dispute.

Figures are unavailable for Somalia.

Data are unavailable for the following countries in the following years' reports:

2004–2005 *Doing Business* data (corresponding to 2003–2004) are unavailable for Eritrea, Mauritius, São Tomé and Príncipe, and the Sudan. Figures from the 2006 report are used for the Index years 2000, 2002, and 2005.

2004–2006 *Doing Business* data (corresponding to 2003–2005) are unavailable for Cape Verde, the Comoros, Djibouti, Equatorial Guinea, Gabon, the Gambia, Guinea-Bissau, the Seychelles, and Swaziland. Figures from the 2007 report are used for the Index years 2000, 2002, 2005, and 2006.

2004–2007 *Doing Business* data (corresponding to 2003–2006) are unavailable for Liberia. Figures from the 2008 report are used for the Index years 2000, 2002, 2005, and 2006.

1 From www.doingbusiness.org, downloaded 6 June 2008. Figures used here reflect numbers current as of this date. Note that earlier releases of these data may differ slightly.

2 From <http://www.doingbusiness.org/ExploreTopics/EnforcingContracts/> (last accessed 20 August 2007).

3 See also Simeon Djankov, Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei Shleifer, "Courts," *Quarterly Journal of Economics*, CXVIII (2003), 453–517.

4 See www.doingbusiness.org.

5 From www.doingbusiness.org/Methodology/Surveys/default2.aspx.

Number of Days to Settle a Contract Dispute

World Bank's *Doing Business* surveys (June 2008 release)

	SCALED DATA:											
	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	1011	1011	1011	1011	43	43	43	43	26.6	26.6	26.6	26.6
Benin	720	720	720	720	29	29	29	30	55.4	55.4	55.4	55.4
Botswana	987	987	987	987	41	41	41	41	29.0	29.0	29.0	29.0
Burkina Faso	458	458	446	446	10	10	10	10	81.4	81.4	82.6	82.6
Burundi	667	667	588	558	25	25	22	22	60.7	60.7	68.5	71.5
Cameroon	800	800	800	800	36	36	36	36	47.5	47.5	47.5	47.5
Cape Verde	465	465	465	465	12	12	12	13	80.7	80.7	80.7	80.7
Central African Republic	660	660	660	660	24	24	25	26	61.4	61.4	61.4	61.4
Chad	743	743	743	743	32	32	32	32	53.2	53.2	53.2	53.2
Comoros	506	506	506	506	15	15	15	16	76.6	76.6	76.6	76.6
Congo	560	560	560	560	21	21	21	23	71.3	71.3	71.3	71.3
Congo, Democratic Rep.	685	685	685	685	26	26	26	27	58.9	58.9	58.9	58.9
Cote d'Ivoire	770	770	770	770	34	34	34	34	50.5	50.5	50.5	50.5
Djibouti	1225	1225	1225	1225	46	46	46	46	5.4	5.4	5.4	5.4
Equatorial Guinea	553	553	553	553	20	20	20	21	72.0	72.0	72.0	72.0
Eritrea	405	405	405	405	5	5	5	5	86.6	86.6	86.6	86.6
Ethiopia	690	690	690	690	27	27	27	28	58.4	58.4	58.4	58.4
Gabon	1070	1070	1070	1070	44	44	44	44	20.8	20.8	20.8	20.8
Gambia	434	434	434	434	9	9	9	9	83.8	83.8	83.8	83.8
Ghana	552	552	552	552	19	19	19	20	72.1	72.1	72.1	72.1
Guinea	276	276	276	276	2	2	2	2	99.4	99.4	99.4	99.4
Guinea-Bissau	1140	1140	1140	1140	45	45	45	45	13.9	13.9	13.9	13.9
Kenya	465	465	465	465	12	12	12	13	80.7	80.7	80.7	80.7
Lesotho	695	695	695	695	28	28	28	29	57.9	57.9	57.9	57.9
Liberia	1280	1280	1280	1280	47	47	47	47	0.0	0.0	0.0	0.0
Madagascar	871	871	871	871	39	39	39	39	40.5	40.5	40.5	40.5
Malawi	432	432	432	432	8	8	8	8	84.0	84.0	84.0	84.0
Mali	860	860	860	860	38	38	38	38	41.6	41.6	41.6	41.6
Mauritania	400	400	400	400	4	4	4	4	87.1	87.1	87.1	87.1
Mauritius	750	750	750	750	33	33	33	33	52.5	52.5	52.5	52.5
Mozambique	1010	1010	1010	1010	42	42	42	42	26.7	26.7	26.7	26.7
Namibia	270	270	270	270	1	1	1	1	100.0	100.0	100.0	100.0
Niger	545	545	545	545	18	18	18	19	72.8	72.8	72.8	72.8
Nigeria	730	730	730	457	31	31	31	11	54.5	54.5	54.5	81.5
Rwanda	395	395	310	310	3	3	3	3	87.6	87.6	96.0	96.0
Sao Tome and Principe	405	405	405	405	5	5	5	5	86.6	86.6	86.6	86.6
Senegal	780	780	780	780	35	35	35	35	49.5	49.5	49.5	49.5
Seychelles	720	720	720	720	29	29	29	30	55.4	55.4	55.4	55.4
Sierra Leone	515	515	515	515	16	16	16	17	75.7	75.7	75.7	75.7
Somalia												
South Africa	600	600	600	600	23	23	24	25	67.3	67.3	67.3	67.3
Sudan	810	810	810	810	37	37	37	37	46.5	46.5	46.5	46.5
Swaziland	972	972	972	972	40	40	40	40	30.5	30.5	30.5	30.5
Tanzania	462	462	462	462	11	11	11	12	81.0	81.0	81.0	81.0
Togo	588	588	588	588	22	22	22	24	68.5	68.5	68.5	68.5
Uganda	535	535	535	535	17	17	17	18	73.8	73.8	73.8	73.8
Zambia	471	471	471	471	14	14	14	15	80.1	80.1	80.1	80.1
Zimbabwe	410	410	410	410	7	7	7	7	86.1	86.1	86.1	86.1

Category: Rule of Law, Transparency, and Corruption

Sub-Category: Corruption

INDICATOR: PUBLIC SECTOR CORRUPTION

Public sector corruption is a key component of the rule of law. A system that does not function according to general laws, applied universally, but through particularistic favors and arrangements, is not functioning according to the rule of law. Like other aspects of the rule of law, corruption is difficult to measure objectively. There are no standard “official statistics” on corruption, and those involved in corruption have clear incentives to hide their involvement. Investigations into corruption may be biased in various ways, such as toward high profile offenders.

For measurement, the Index of African Governance thus relies on the industry standard, Transparency International’s Corruption Perceptions Index (CPI), along with other material on the CPI available through the Internet Center for Corruption Research, an initiative of the University of Passau and Transparency International.¹ The CPI is a composite index that draws on multiple expert opinion surveys of perceptions of public sector corruption. It scores countries on a scale from 0 to 10, where “0” indicates high levels of perceived corruption. It should be noted that the sources used in the CPI have varied from year to year, so the producers of the CPI caution against comparisons over time. For lack of a better measure, we use the CPI here over time.

In 2006 (corresponding to the 2007 CPI), scores ranged from a low of 1.4 (Somalia) to a high of 5.4 (Botswana). Botswana also received the best scores in all four years covered by this Index. Other consistently strong performers included South Africa (2nd in 2006), Cape Verde (3rd), Mauritius (4th), and Namibia (5th). Along with Somalia, other countries with exceptionally poor corruption scores in 2006 included Chad, the Democratic Republic of the Congo, Equatorial Guinea, Guinea, and the Sudan.

A number of sources were explored as alternative ways to measure public sector corruption. These include such excellent projects as TI’s Bribe Payer’s Index and Global Corruption Barometer, the International Budget Project’s Open Budget Initiative, and the Global Integrity Report. Each was judged inappropriate for use in the Index of African Governance, however, because their coverage across countries and over time was insufficient for our purposes. For further discussion of approaches to corruption measurement, see our Researcher’s Report, “Measuring Corruption,” by Oyinola Shyllon.

Technical Notes

Each CPI score is based on up to twelve surveys and assessments spanning the previous two years (e.g., the 2006 CPI covered 2005 and 2006).² Sources may vary from year to year, which makes comparison over time problematic.

At least three sources are required for a country to receive a CPI score published by Transparency International. These scores are standardized and averaged to obtain a country’s overall CPI score. Final data give the overall CPI scores and country rankings, along with the number of sources, high and low values, standard deviation, and the confidence interval (at 90 percent) for each country.

Data for countries with fewer than three surveys are available from the Internet Center for Corruption Research, but are not used in the official TI CPI. In order to present data on all countries, the Index of African Governance uses these unofficial data to estimate scores when official TI CPI scores are unavailable, as noted below. These data are based on less information than official TI CPI scores and thus should be used with caution. Nevertheless, we chose to report these scores because they are based on standard surveys and assessments, figures that provide useful information on their own, even if an aggregated score like the CPI arguably might be more useful. It should be noted, however, that there can be significant variations in the scores from various sources. Because they are based on less information, the scores that we report are more affected by extreme values.

1 For details, see the Internet Center for Corruption Research, “Survey sources for the TI Corruption Perceptions Index (CPI) 2007,” available at http://www.icgg.org/corruption.cpi_2007_sources.html (last accessed 26 July 2008).

2 From the Internet Center for Corruption Research, “Survey sources for the TI Corruption Perceptions Index (CPI) 2006,” available at http://www.icgg.org/corruption.cpi_2006_sources.html (last accessed 26 July 2008).

The Index of African Governance uses the following method to assign CPI scores for 2002, 2005, and 2006:

1. Because official TI CPI scores cover the previous two years, we use, when available, the 2007 TI CPI for 2006 (all countries are covered), the 2006 TI CPI for 2005, and the 2003 TI CPI for 2002.
2. When these scores are unavailable, we use the official TI CPI score from the previous year: 2006 TI CPI for 2006, 2005 TI CPI for 2005, and 2002 TI CPI for 2002.
3. When official TI CPI scores are still unavailable, we use the unofficial survey data for the appropriate year (2007 data for 2006 and so on), if there are two surveys.
4. If there are fewer than two surveys in the appropriate year, we assign a score based on the unofficial data from the previous year (2006 data for 2006 and so on), if there are two surveys.
5. If a score is still not available, we use the data from the following year (2004 for 2002 and so on). The official TI CPI for this year is used if available.
6. If not, we use the unofficial data, if there are two surveys.
7. If a score is still not available, we use the unofficial data based on one survey for the appropriate year if available, and so on.

For 2000, we used a similar, but slightly different, method because “unofficial” scores for 2000 and 2001 were unavailable and there were more missing values than for other years. For 2000, we used the official 2001 TI CPI score, if available; then the official 2000 TI CPI score, if available; then the official 2002 TI CPI score, if available; and then the unofficial 2002 CPI score, based on two surveys, if available. For the remaining countries, we used the 2002 Index of African Governance score.

There are several alternative ways in which scores could have been assigned. We chose this method because we judged it to be the most defensible in terms of using data for the closest appropriate years and with the greatest information. We also examined several substitute methods and found that values were generally similar using such different methods.

For 2005, we use scores from the official 2006 TI CPI, with the following exceptions:

Scores for Liberia and Somalia are based on the 2005 TI CPI.

Scores for the following countries are based on 2006 data from the Internet Center for Corruption Research, using only two surveys: Cape Verde, the Comoros, Djibouti, Guinea-Bissau, and São Tomé and Príncipe. The greatest variation between high and low scores was for São Tomé and Príncipe (2.2, 3.2) and Cape Verde (3.2, 6.0).

For 2002, we use scores from the official 2003 TI CPI, with the following exceptions:

Scores for the following countries are based on 2003 data, but with only two surveys (range of low and high scores is noted in parentheses): Benin (2.0, 5.0), Chad (0.9, 2.0), the Democratic Republic of the Congo (1.4, 2.4), Eritrea (1.5, 4.7), Gabon (both 3.6), Guinea-Bissau (2.0, 6.7 [and results for 2004 are equivalent]), Liberia (2.0, 2.2), Niger (both 2.0), Rwanda (2.0, 5.0), the Seychelles (2.0, 5.6), and Somalia (2.0, 2.2).³

Scores for the following countries are based on 2002 data, but with only two surveys (range of low and high scores is noted in parentheses): Burkina Faso (1.7, 3.0) and Lesotho (2.8, 4.3).

Scores for the following countries are based on 2004 data, but with only two surveys: Burundi (2.0, 2.6), the Central African Republic (2.0, 2.6), Equatorial Guinea (1.5, 2.0), Guinea (1.6, 2.0), Mauritania (4.2, 6.6), Swaziland (2.6, 3.4), and Togo (2.5, 2.6).

³ Note that scores may differ slightly from the average of the two scores noted here because of rounding.

Scores for the following countries are based on 2003 data, but with only one survey: Cape Verde, the Comoros, Djibouti, and São Tomé and Príncipe.

For 2000, we use scores from the official 2001 TI CPI, with the following exceptions:

Scores for the following countries were obtained from the official TI CPI for 2000: Angola (the score is also equivalent to the 2002 TI CPI), Burkina Faso, Ethiopia, and Mozambique.

The score for Madagascar is based on the official 2002 TI CPI value.

Scores for the following countries are based on 2002 data, but with only two surveys: Gabon (1.7, 3.6), Lesotho (2.8, 4.3), and the Sudan (1.7, 2.0).

Scores for the following countries in 2000 are taken from the 2002 Index of African Governance score: Benin, Burundi, Cape Verde, the Central African Republic, Chad, the Comoros, Congo, the Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, the Gambia, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Rwanda, São Tomé and Príncipe, the Seychelles, Sierra Leone, Somalia, Swaziland, and Togo.

Public Sector Corruption

Corruption Perceptions Index of Transparency International and Internet Center for Corruption Research

	RAW DATA:				SCALED DATA:							
					Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	1.7	1.8	2.2	2.2	44	43	35	33	14.0	16.0	24.0	24.0
Benin	3.5	3.5	2.5	2.7	11	12	22	20	50.0	50.0	30.0	34.0
Botswana	6.0	5.7	5.6	5.4	1	1	1	1	100.0	94.0	92.0	88.0
Burkina Faso	3.0	2.3	3.2	2.9	17	29	9	14	40.0	26.0	44.0	38.0
Burundi	2.3	2.3	2.4	2.5	29	29	26	28	26.0	26.0	28.0	30.0
Cameroon	2.0	1.8	2.3	2.4	37	43	33	29	20.0	16.0	26.0	28.0
Cape Verde	3.6	3.6	4.6	4.9	8	8	3	3	52.0	52.0	72.0	78.0
Central African Republic	2.3	2.3	2.4	2.0	29	29	26	42	26.0	26.0	28.0	20.0
Chad	1.4	1.4	2.0	1.8	47	47	45	46	8.0	8.0	20.0	16.0
Comoros	2.7	2.7	2.4	2.6	22	20	26	24	34.0	34.0	28.0	32.0
Congo	2.2	2.2	2.2	2.1	31	34	35	36	24.0	24.0	24.0	22.0
Congo, Democratic Rep.	1.9	1.9	2.0	1.9	40	41	45	43	18.0	18.0	20.0	18.0
Cote d'Ivoire	2.4	2.1	2.1	2.1	28	37	42	36	28.0	22.0	22.0	22.0
Djibouti	2.7	2.7	2.4	2.9	22	20	26	14	34.0	34.0	28.0	38.0
Equatorial Guinea	1.7	1.7	2.1	1.9	44	46	42	43	14.0	14.0	22.0	18.0
Eritrea	3.1	3.1	2.9	2.8	16	16	14	16	42.0	42.0	38.0	36.0
Ethiopia	3.2	2.5	2.4	2.4	14	25	26	29	44.0	30.0	28.0	28.0
Gabon	2.6	3.6	3.0	3.3	24	8	13	9	32.0	52.0	40.0	46.0
Gambia	2.5	2.5	2.5	2.3	27	25	22	31	30.0	30.0	30.0	26.0
Ghana	3.4	3.3	3.3	3.7	13	14	7	7	48.0	46.0	46.0	54.0
Guinea	1.8	1.8	1.9	1.9	42	43	48	43	16.0	16.0	18.0	18.0
Guinea-Bissau	4.3	4.3	2.2	2.2	6	6	35	33	66.0	66.0	24.0	24.0
Kenya	2.0	1.9	2.2	2.1	37	41	35	36	20.0	18.0	24.0	22.0
Lesotho	3.6	3.6	3.2	3.3	8	8	9	9	52.0	52.0	44.0	46.0
Liberia	2.1	2.1	2.2	2.1	35	37	35	36	22.0	22.0	24.0	22.0
Madagascar	1.7	2.6	3.1	3.2	44	23	11	12	14.0	32.0	42.0	44.0
Malawi	3.2	2.8	2.7	2.7	14	19	18	20	44.0	36.0	34.0	34.0
Mali	3.0	3.0	2.8	2.7	17	17	16	20	40.0	40.0	36.0	34.0
Mauritania	5.4	5.4	3.1	2.6	2	2	11	24	88.0	88.0	42.0	32.0
Mauritius	4.5	4.4	5.1	4.7	5	4	2	4	70.0	68.0	82.0	74.0
Mozambique	2.2	2.7	2.8	2.8	31	20	16	16	24.0	34.0	36.0	36.0
Namibia	5.4	4.7	4.1	4.5	2	3	5	5	88.0	74.0	62.0	70.0
Niger	2.0	2.0	2.3	2.6	37	40	33	24	20.0	20.0	26.0	32.0
Nigeria	1.0	1.4	2.2	2.2	48	47	35	33	0.0	8.0	24.0	24.0
Rwanda	3.5	3.5	2.5	2.8	11	12	22	16	50.0	50.0	30.0	36.0
Sao Tome and Principe	3.6	3.6	2.7	2.7	8	8	18	20	52.0	52.0	34.0	34.0
Senegal	2.9	3.2	3.3	3.6	20	15	7	8	38.0	44.0	46.0	52.0
Seychelles	3.8	3.8	3.6	4.5	7	7	6	5	56.0	56.0	52.0	70.0
Sierra Leone	2.2	2.2	2.2	2.1	31	34	35	36	24.0	24.0	24.0	22.0
Somalia	2.1	2.1	2.1	1.4	35	37	42	48	22.0	22.0	22.0	8.0
South Africa	4.8	4.4	4.6	5.1	4	4	3	2	76.0	68.0	72.0	82.0
Sudan	1.8	2.3	2.0	1.8	42	29	45	46	16.0	26.0	20.0	16.0
Swaziland	3.0	3.0	2.5	3.3	17	17	22	9	40.0	40.0	30.0	46.0
Tanzania	2.2	2.5	2.9	3.2	31	25	14	12	24.0	30.0	38.0	44.0
Togo	2.6	2.6	2.4	2.3	24	23	26	31	32.0	32.0	28.0	26.0
Uganda	1.9	2.2	2.7	2.8	40	34	18	16	18.0	24.0	34.0	36.0
Zambia	2.6	2.5	2.6	2.6	24	25	21	24	32.0	30.0	32.0	32.0
Zimbabwe	2.9	2.3	2.4	2.1	20	29	26	36	38.0	26.0	28.0	22.0

RESEARCHER'S REPORT: MEASURING CORRUPTION

Oyinola Shyllon

This is a "Researcher's Report" prepared for the project, but not necessarily representative of the full range of analysis contained in the 2008 Index. For further information on corruption and the rule of law, see the introduction to the Rule of Law category and the descriptive note on Public Sector Corruption.

Direct measures of corruption (e.g., missing expenditures in government contracts and valuations of the magnitude of bribes paid to public sector patronage systems) are currently only available in micro studies of specific projects or programs in countries.¹ Hence, corruption perceptions data are, at present, the best available indicators of corruption at the national level; they are amenable to cross-country comparisons and analysis, especially for sub-Saharan African countries.

Three Types of Corruption Measures

Given the difficulty in obtaining direct measures of corruption, the use of perceptions-based measures in cross-country studies has grown exponentially in the past decade. Three types of corruption measures have been adopted. The first is based on indicators of corruption assembled by private risk assessment firms.² For instance, the initial index adopted by Mauro was based on the Business International (BI) index of corruption.³ That index was based on standard questionnaires completed by BI correspondents in about seventy countries.

The second type of measure uses averages of ratings reported by a number of perception-based sources, with Transparency International's Corruption Perceptions Index (CPI) being the most widely disseminated.⁴ The CPI thus represents an improvement over the first type of measure because rather than relying on a single data source with the possibility of a large margin of error, it is a poll of polls on indices of bureaucratic honesty. It thereby pays better attention to ensuring accuracy and consistency. That scores on the CPI may still contain huge standard errors as a result of polling from various sources is mitigated by emphasis on an ordinal ranking of countries. The world-wide coverage of the CPI also affords data for nearly all of sub-Saharan Africa.

The third type of measure, unlike the previous two that give ordinal scores for corruption, provides cardinal scores of corruption based on survey data.⁵ Two good examples are the EBRD-World Bank Business Environment and Enterprise Performance Survey; and the International Crime Victim Surveys (ICVS). The first of these compiles the experiences of more than 10,000 firm managers in 1999 and 2002. Firm managers were asked to estimate the share of annual sales that "firms like yours" typically pay in unofficial payments to public officials. The ICVS has been published since 2003 and was designed to produce comparable data on crime and victimization across countries, using a combination of computer-assisted telephone interviewing in developed countries and face-to-face surveys in developing countries.

Measures of this third type are especially promising as a means of producing data that rely not on expert opinion about the level of corruption in a country, but on disaggregated individual or firm experiences with corruption. However, there are several disadvantages associated with these measures. For the Index of African Governance, the key disadvantage is that data are only available for a small sample of countries. For example, the EBRD Survey is only available for twenty-six transitional

1 Ben Olken, "Monitoring Corruption: Evidence from a Field Experiment in Indonesia," *Journal of Political Economy*, CXV (2007), 200–249. See Yuriy Gorodnichenko and Klara Sabirianova, "Public Sector Pay and Corruption: Measuring Bribery from Micro Data," *Journal of Public Economics*, XCI (2007), 963–991.

2 See for example: Stephen Knack and Philip Keefer, "Institutions and Economic Performance: Cross-Country Tests Using Alternative Institutional Measures," *Economics and Politics*, VII (1995), 207–227; Paolo Mauro, "Corruption and Growth," *Quarterly Journal of Economics*, CX (1995), 681–712.

3 *Ibid.*, 682.

4 Jakob Svensson, "Eight Questions about Corruption," *Journal of Economic Perspectives*, XIX (2005), 21–24.

5 Ordinal scoring or ranking provides an indication of the direction/order of items, for example, fourth in the list of most corrupt countries, while cardinal scoring provides information about both the direction and the magnitude of items, e.g., twice as many businessmen (for every thousand businessmen) in country A believe that "firms like theirs" make unofficial payments to public officials when compared with country B.

countries. In addition, collecting reliable data on corruption through traditional survey techniques is problematic given that respondents may choose to misreport or not report at all for many reasons, both of which may be systematically related to country characteristics, such as culture or institutions. Furthermore, the information gathered from such surveys generally provides a measure of only how corruption affects particular groups. For instance, the ICVS provides information on the incidence of corruption from the point of view of the household only, while the EBRD Survey assesses corruption that affects firms.⁶

Use of the Corruption Perceptions Index

In light of these difficulties, the CPI is often used as a measure of corruption, and it is used in the 2008 Index of African Governance. There are a number of strengths to the CPI approach. First, it is a composite index, making use of surveys of businesspeople and assessments completed by country analysts. The expertise reflected in the CPI scores draws on an understanding of corrupt practices held by those based in both the industrialized and developing world. The surveys used in the CPI employ two types of samples, both non-resident and resident. (It is important to note that residents' viewpoints correlate well with those of non-resident experts.) In order to qualify for inclusion in the construction of the CPI, a source needs to meet two criteria, namely: (a) it must provide a ranking of nations using a consistent methodology; and (b) it must measure the overall extent of corruption (rather than mixing corruption with other issues, such as political instability or nationalism, or measuring changes instead of the extent of corruption).

Although often used to compare corruption from year to year, the authors of the CPI caution against its use in this way because the underlying surveys included in the index vary from year to year. (This weakness of the CPI is noted elsewhere in the Index of African Governance.)

Furthermore, although a lot of care is taken in the development of the CPI, its reliance on the measurement of beliefs about corruption implies a number of weaknesses: (a) it is not a direct measure of corruption; (b) it raises the question of how those being surveyed form their beliefs; and (c) it raises questions about how accurate beliefs about corruption are.⁷ Consequently, a positive correlation between beliefs about corruption and direct measures of corruption is insufficient to show that the two can be used interchangeably as measures of corruption. Indeed, there is evidence of a very weak correlation between beliefs about corruption and direct measures of corruption—suggesting a divergence between corruption perception and corruption reality.

In addition, there are difficulties in learning how to interpret some of the underlying surveys used to construct the CPI. For instance, some surveys include questions concerning the overall business environment (questions about red tape, the quality of the courts, etc), while others, for instance, do not pose questions directly about “corruption,” but rather ask related questions. Thus, when a country's score differs from survey to survey, one cannot tell if this is because of the use of different sources focused on different areas, changes in underlying conditions, or shifts in perceptions. Therefore, some consider this index to be a rough measure of the difficulties of doing business across countries, and caution against the use of its scores to make precise comparisons between closely ranked countries.

6 The EBRD survey samples firms with more than 1 but less than 10,000 employees. Many of the firms surveyed are small. For instance, in the 1999 survey 55 percent of the firms were either micro-businesses (with under 10 employees) or small enterprises (10–49 employees).

7 See Ben Olken, “Corruption Perceptions vs. Corruption Reality,” NBER Working Paper 12428 (Cambridge, MA, 2006).

III - PARTICIPATION AND HUMAN RIGHTS

The political good of political freedom is essential to good governance. It includes both the ability to contest elections freely, and respect for basic human rights, regardless of ethnicity, gender, social status, or other group markers. Without these components of political freedom, many other political goods that collectively compose good governance are difficult to exercise.

The protection and promotion of universal human rights, in fact, are so fundamental to the construction of this Index that they are evident in every single category. This category focuses on civil and political rights—what are also called “first generation rights.” Economic and social rights are addressed under the category of Human Development, as well as under the category of Sustainable Economic Opportunity. Other necessary components of the protection of human rights—including a legal framework and international sanctions against major violations of human rights—are taken into account in the category of Rule of Law, Transparency, and Corruption. The category of Safety and Security contains still further information about human rights, highlighting outcomes related to war, organized violence against civilians, and forced displacement.

In addition to gender-based discrimination, which is explicitly addressed in the final indicator included in this section, there are other forms of group-based discrimination, such as discrimination against ethnic groups and religious minorities. These forms of discrimination are addressed in this category through indicators on physical integrity rights and civil rights and, under Safety and Security, through indicators on intrastate (including ethnic) conflict.

This category thus comprises two sub-categories, Participation in Elections, and Civil and Political Rights. In our overall score for this particular category, we weight each of these two components equally.

Participation in Elections

The four sub-sub-categories (indicators) in this section deal with participation in the formal political process, through the important channel of elections for the executive and legislative branches of government. They address whether the head of state and legislature in office during a given year came to office through a process of free, fair, and competitive elections.

The scoring for each of these four indicators is our own, based on news reports and other information on each election and on changes in power in each country between elections. Key sources include the International Foundation for Electoral Systems (IFES) Election Guide; the Africa Elections Database; Economist Intelligence Unit country reports and profiles; BBC News country profiles; and news archives from IRIN (produced by the UN Office for the Coordination of Humanitarian Affairs) and allafrica.com. Journal articles on elections and electoral systems have also been consulted for selected countries and elections. The Index explored the use of other sources such as Freedom House’s well-respected Freedom in the World survey. We chose not to use this particular source because its methodology was not in keeping with our own, given its reliance on a survey of experts for its scores. For further discussion on alternative sources, see the descriptive note on the elections indicators.

The four indicators in this sub-category are:

1. *Free and fair executive elections*, i.e., was the current head of state elected through free and fair elections? Our assessment is based on whether official international observer missions judge these elections to be “free and fair,” whether they judge them to be basically free and fair but highlight some significant problems, or whether they refuse to recognize their results. A score of “2” indicates fully free and fair; “1” indicates partially free and fair; and “0” indicates not free and fair.¹ Countries in which the current head of state did not come to power through elections are also assigned a “0.”² Further details can be found in the descriptive notes to this indicator.

2. *Participation of the opposition in executive elections*, i.e., were these executive elections contested by the main opposition actors? A score of “1” indicates yes and “0” indicates no.

3. *Free and fair legislative elections*, i.e., was the current legislature elected through free and fair elections? As for executive elections, a score of “2” indicates fully free and fair; “1” indicates partially free and fair; and “0” indicates not free and fair.³

4. *Participation of the opposition in legislative elections*, i.e., were these legislative elections contested by the main opposition parties? A score of “1” indicates yes and “0” indicates no.

Non-electoral forms of political participation are also essential to good governance. Many aspects of non-electoral participation are addressed here under the sub-category of Respect for Civil and Political Rights. Readers might also refer to the many studies cited at the bottom of this section for more information on other aspects of participation.

Respect for Civil and Political Rights

It is difficult to measure all outcomes on human rights protection and promotion, and there are limited data available and comparable for all forty-eight countries of sub-Saharan Africa.⁴ This section uses the most comprehensive, reliable data of which we are aware, drawn from the Cingranelli-Richards (CIRI) Human Rights Dataset (David L. Cingranelli and David L. Richards, *The Cingranelli-Richards (CIRI) Human Rights Data Project*, Version 2008.03.12, 2008, available at www.humanrightsdata.org). In addition, this section draws on information from Reporters Without Borders. In selecting these sources, we reviewed numerous others, many of which are described below and in the descriptive notes on each indicator.

1. *Respect for physical integrity rights* (absence of extrajudicial killing, disappearances, torture, and political imprisonment), based on the “Physical Integrity Rights Index” of the Cingranelli-Richards (CIRI) Human Rights Dataset 2008. Scores in the “Physical Integrity Rights Index” range from a low of 0 to a possible high of 8, where “0” is no respect. Scores are based on a systematic annual coding for each country, using information from the *U.S. State Department Country Reports on Human Rights Practices* and Amnesty International’s *Annual Report* for the years in question.

2. *Respect for civil rights* (freedom of movement, political participation, worker’s rights, freedom of speech, freedom of religion, and freedom of assembly), based on the “Empowerment Rights Index” and the indicator on Freedom of Assembly and Association from the Cingranelli-Richards (CIRI) Human Rights Dataset 2008. Scores range from 0 to 12, where “0” is no respect. Scores are based on a systematic annual coding for each country, using detailed country summaries in the annual

1 For countries with parliamentary systems such as Botswana, where the legislature selects the head of state, scores are based on the legislative elections.

2 However, if the particular individual elected steps down for some reason (e.g., death, ill-health) and is succeeded in a constitutional manner, the score is based on the last election.

3 In countries with multiple legislative chambers, this indicator is based on the lower house, which is generally the more directly elected body.

4 Some useful references and websites are: Office of the United Nations High Commissioner for Human Rights (OHCHR), available at <http://www.ohchr.org/>; United Nations Development Programme (UNDP), *Human Development Report 2000: Human Rights and Human Development*, available at <http://hdr.undp.org/reports/global/2000/en/>; Human Rights Impact Resource Centre, available at <http://www.humanrightsimpact.org/>; Amnesty International annual reports and other documents available at <http://www.amnesty.org/>; Human Rights Watch, available at <http://www.hrw.org/>; United Nations, “Report on Indicators for Monitoring Compliance with International Human Rights Instruments,” report prepared by the OHCHR for the Eighteenth Meeting of the Chairpersons of the Human Rights Treaty Bodies, HRI/MC/2006/7, (11 May 2006), available at <http://www.ohchr.org/english/bodies/icm-mc/documents.htm> (last accessed 30 August 2008).

U.S. State Department Country Reports on Human Rights Practices. Despite the wealth of information on human rights in selected contexts, the relatively complete and comparable coverage of all countries provided by the U.S. State Department reports is unique. No other source anywhere is as comprehensive. The *Country Reports*, developed on the basis of overseas embassy gleaning of local press and other reports, are hundreds of pages long, and factual, not prescriptive. The CIRI team has also done extensive research into alternative sources.⁵

3. *Press Freedom Index*, from Reporters Without Borders (with technical assistance from the Statistics Institute of the University of Paris). The index scores are based on a survey of partner organizations, journalists, and others, highlighting fifty criteria. In the raw scores used in the Index of African Governance, low figures indicate a freer press and higher scores, a less free press.

4. *Absence of Gender Discrimination, Measured in Terms of Women's Rights.* Gender discrimination affects both men and women. Given the limits of available data, however, the Index focuses on discrimination against women, who are generally more affected.⁶ This indicator is based on the combined scores of the Women's Economic Rights, Women's Political Rights, and Women's Social Rights scores of the CIRI Human Rights Dataset 2008.⁷ Possible scores range from 0 (no rights in any of the three areas) to 9 (all or nearly all rights in all three areas). Scores are based on a systematic coding of information contained in the *U.S. State Department Country Reports on Human Rights Practices*.

We also collected information on the percentage of women parliamentarians and the percentage of women at the ministerial level, data compiled by the Inter-Parliamentary Union (IPU) and also reported by several other sources, including the UNDP's *Human Development Report* and the Millennium Development Goals (MDG) Indicators. We chose not to use these figures because the Women's Political Rights indicator already incorporates these variables into its careful coding.

Selections for Further Reading

There is an enormous literature on the topics addressed in this section. A number of resources are cited above. A handful of selections for further reading include:

David Beetham (ed.), *Defining and Measuring Democracy* (London, 1994).

David L. Cingranelli and David L. Richards, "Measuring the Pattern, Level, and Sequence of Government Respect for Human Rights," *International Studies Quarterly*, XLIII (1999), 407–417.

Committee to Protect Journalists (with a preface by Anderson Cooper), *Attacks on the Press in 2006* (New York, 2007).

Robert A. Dahl, *Polyarchy: Participation and Opposition* (New Haven, 1971).

Renske Doorenspleet, *Democratic Transitions: Exploring the Structural Sources of the Fourth Wave* (Boulder, 2005).

Freedom House, *Freedom in the World: An Annual Survey of Political Rights and Civil Liberties* (various years).

5 See also Steven P. Poe, Sabine C. Carey, and Tanya C. Vazquez, "How are these Pictures Different? A Quantitative Comparison of the US State Department and Amnesty International Human Rights Reports, 1976–1995," *Human Rights Quarterly*, XXIII (2001), 650–677.

6 For a review of data sources on gender, see Renata Campante, "Data Sources on Gender" Special Paper 5, in Robert I. Rotberg and Rachel M. Gisselquist, *Strengthening African Governance Ibrahim Index of African Governance: Results and Rankings 2007* (Cambridge, MA, 2007), 231–243. Some other useful starting points for further information include the UN Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), available at <http://www.un.org/womenwatch/daw/cedaw/cedaw.htm>; the UN Division for the Advancement of Women, available at <http://www.un.org/womenwatch/daw/daw/index.html>; the Gender and Social Development program of the United Nations Commission for Africa, available at http://www.uneca.org/eca_programmes/acgd/default.htm; the United Nations Development Fund for Women, available at <http://www.unifem.org/>; Human Rights Watch, in particular pages on Lesbian and Gay Rights, available at <http://hrw.org/doc/?t=lgbt> and on Women's Rights, available at <http://hrw.org/women/>; Amnesty International's Stop Violence Against Women campaign, available at <http://web.amnesty.org/actforwomen/index-eng>; and the International Institute for Democracy and Electoral Assistance (IDEA), *Women in Parliament: Beyond Numbers* (2005), available at <http://archive.idea.int/women/parl/> (all last accessed 30 August 2008).

7 The 2008 CIRI Dataset does not include scores for Women's Social Rights for 2005 and 2006. Our figures are from preliminary estimates provided directly to us by the CIRI Project.

Daniel Kaufmann, "Human Rights and Governance: The Empirical Challenge," in Philip Allston and Mary Robinson (eds.), *Human Rights and Development: Towards Mutual Reinforcement* (New York, 2005).

Arend Lijphart, *Democracy in Plural Societies: A Comparative Exploration* (New Haven, 1977).

Staffan Lindberg, *Democracy and Elections in Africa* (Baltimore, 2006).

United Nations Development Programme, "Indicators for Human Rights-Based Approaches to Development in UNDP Programming," (2006).

United Nations Development Programme and the European Commission, "Governance Indicators: A User's Guide," (2005).

Participation and Human Rights Rankings

Listed by 2006 Score

1	Mauritius	92.2
2	Liberia	87.9
3	Botswana	87.4
4	South Africa	86.3
5	Sao Tome and Principe	83.4
6	Senegal	81.7
7	Benin	81.1
8	Ghana	80.2
9	Niger	79.4
10	Cape Verde	77.7
11	Seychelles	76.9
12	Lesotho	75.5
13	Namibia	75.3
14	Guinea-Bissau	75.2
15	Madagascar	74.9
16	Mali	74.7
17	Comoros	73.1
18	Mozambique	70.4
19	Burkina Faso	70.1
20	Sierra Leone	69.8
21	Rwanda	69.5
22	Malawi	69.1
23	Zambia	66.6
24	Tanzania	65.4
25	Kenya	63.3
26	Gabon	61.2
27	Uganda	61.0
28	Burundi	60.4
29	Central African Republic	60.2
30	Djibouti	55.6
31	Cameroon	54.7
32	Congo	48.6
33	Togo	44.2
34	Nigeria	44.1
35	Gambia	42.5
36	Zimbabwe	41.9
37	Ethiopia	40.4
38	Equatorial Guinea	32.2
39	Mauritania	30.8
40	Chad	29.8
41	Angola	29.0
42	Swaziland	28.8
43	Guinea	25.4
44	Cote d'Ivoire	22.6
45	Congo, Democratic Republic	14.7
46	Sudan	12.0
47	Eritrea	10.6
48	Somalia	6.4

Participation and Human Rights Rankings

Listed by 2000 Score		Listed by 2002 Score		Listed by 2005 Score		
1	Benin	93.0	Sao Tome and Principe	93.8	Mauritius	95.3
2	Mauritius	91.0	South Africa	92.2	Sao Tome and Principe	93.8
3	South Africa	90.7	Botswana	90.0	South Africa	86.9
4	Botswana	90.0	Mauritius	89.2	Botswana	86.7
5	Sao Tome and Principe	85.2	Senegal	86.7	Cape Verde	84.7
6	Madagascar	79.8	Mozambique	83.9	Niger	82.8
7	Mozambique	79.8	Cape Verde	83.7	Senegal	82.2
8	Namibia	79.7	Benin	83.6	Ghana	79.8
9	Senegal	78.9	Namibia	79.9	Namibia	76.9
10	Seychelles	78.2	Seychelles	78.2	Seychelles	76.9
11	Malawi	73.5	Sierra Leone	77.5	Benin	76.4
12	Guinea-Bissau	73.1	Ghana	77.1	Mali	76.4
13	Niger	71.6	Lesotho	74.3	Lesotho	72.5
14	Cape Verde	71.2	Malawi	73.0	Malawi	71.0
15	Gabon	70.8	Tanzania	72.2	Mozambique	70.5
16	Ghana	69.9	Niger	72.2	Madagascar	67.9
17	Central African Republic	66.0	Zambia	71.5	Rwanda	66.5
18	Djibouti	63.7	Gabon	70.3	Kenya	66.2
19	Guinea	61.7	Central African Republic	68.6	Sierra Leone	66.0
20	Kenya	61.1	Madagascar	67.8	Zambia	65.5
21	Liberia	59.1	Guinea-Bissau	66.9	Tanzania	62.6
22	Chad	52.5	Kenya	64.0	Gabon	62.2
23	Sierra Leone	49.6	Djibouti	63.7	Mauritania	60.4
24	Nigeria	47.3	Mali	61.4	Central African Republic	59.5
25	Mali	46.8	Liberia	59.6	Comoros	58.8
26	Burkina Faso	46.5	Gambia	56.5	Burkina Faso	57.2
27	Zambia	44.4	Burkina Faso	55.5	Guinea-Bissau	54.9
28	Togo	42.5	Mauritania	54.5	Cameroon	53.7
29	Tanzania	42.0	Chad	53.0	Djibouti	49.6
30	Comoros	38.5	Uganda	52.0	Congo	48.6
31	Zimbabwe	36.9	Congo	49.6	Gambia	48.6
32	Cameroon	35.1	Ethiopia	47.7	Uganda	46.2
33	Lesotho	33.2	Nigeria	47.6	Ethiopia	44.3
34	Gambia	31.2	Guinea	46.8	Chad	43.0
35	Uganda	30.6	Zimbabwe	46.3	Nigeria	42.9
36	Equatorial Guinea	30.1	Togo	40.7	Zimbabwe	40.0
37	Congo	29.3	Comoros	40.3	Liberia	39.0
38	Mauritania	28.4	Cameroon	35.6	Togo	38.7
39	Cote d'Ivoire	25.4	Equatorial Guinea	30.1	Guinea	30.2
40	Rwanda	24.8	Cote d'Ivoire	28.5	Equatorial Guinea	29.4
41	Swaziland	24.6	Swaziland	27.8	Angola	27.9
42	Ethiopia	23.7	Rwanda	24.3	Burundi	27.2
43	Eritrea	22.8	Angola	22.6	Swaziland	22.8
44	Angola	22.1	Burundi	21.3	Cote d'Ivoire	20.0
45	Burundi	20.0	Eritrea	17.1	Sudan	15.4
46	Sudan	10.2	Congo, Democratic Republic	15.6	Congo, Democratic Republic	13.4
47	Congo, Democratic Republic	7.8	Sudan	12.0	Eritrea	10.3
48	Somalia	7.3	Somalia	7.3	Somalia	5.4

Participation and Human Rights—Category Scores

Listed by Country “A” to “Z”

	2000	2002	2005	2006
Angola	22.1	22.6	27.9	29.0
Benin	93.0	83.6	76.4	81.1
Botswana	90.0	90.0	86.7	87.4
Burkina Faso	46.5	55.5	57.2	70.1
Burundi	20.0	21.3	27.2	60.4
Cameroon	35.1	35.6	53.7	54.7
Cape Verde	71.2	83.7	84.7	77.7
Central African Republic	66.0	68.6	59.5	60.2
Chad	52.5	53.0	43.0	29.8
Comoros	38.5	40.3	58.8	73.1
Congo	29.3	49.6	48.6	48.6
Congo, Democratic Rep.	7.8	15.6	13.4	14.7
Cote d’Ivoire	25.4	28.5	20.0	22.6
Djibouti	63.7	63.7	49.6	55.6
Equatorial Guinea	30.1	30.1	29.4	32.2
Eritrea	22.8	17.1	10.3	10.6
Ethiopia	23.7	47.7	44.3	40.4
Gabon	70.8	70.3	62.2	61.2
Gambia	31.2	56.5	48.6	42.5
Ghana	69.9	77.1	79.8	80.2
Guinea	61.7	46.8	30.2	25.4
Guinea-Bissau	73.1	66.9	54.9	75.2
Kenya	61.1	64.0	66.2	63.3
Lesotho	33.2	74.3	72.5	75.5
Liberia	59.1	59.6	39.0	87.9
Madagascar	79.8	67.8	67.9	74.9
Malawi	73.5	73.0	71.0	69.1
Mali	46.8	61.4	76.4	74.7
Mauritania	28.4	54.5	60.4	30.8
Mauritius	91.0	89.2	95.3	92.2
Mozambique	79.8	83.9	70.5	70.4
Namibia	79.7	79.9	76.9	75.3
Niger	71.6	72.2	82.8	79.4
Nigeria	47.3	47.6	42.9	44.1
Rwanda	24.8	24.3	66.5	69.5
Sao Tome and Principe	85.2	93.8	93.8	83.4
Senegal	78.9	86.7	82.2	81.7
Seychelles	78.2	78.2	76.9	76.9
Sierra Leone	49.6	77.5	66.0	69.8
Somalia	7.3	7.3	5.4	6.4
South Africa	90.7	92.2	86.9	86.3
Sudan	10.2	12.0	15.4	12.0
Swaziland	24.6	27.8	22.8	28.8
Tanzania	42.0	72.2	62.6	65.4
Togo	42.5	40.7	38.7	44.2
Uganda	30.6	52.0	46.2	61.0
Zambia	44.4	71.5	65.5	66.6
Zimbabwe	36.9	46.3	40.0	41.9

Participation and Human Rights—Rank

Listed by Country “A” to “Z”

	2000	2002	2005	2006
Angola	44	43	41	41
Benin	1	8	11	7
Botswana	4	3	4	3
Burkina Faso	26	27	26	19
Burundi	45	44	42	28
Cameroon	32	38	28	31
Cape Verde	14	7	5	10
Central African Republic	17	19	24	29
Chad	22	29	34	40
Comoros	30	37	25	17
Congo	37	31	30	32
Congo, Democratic Rep.	47	46	46	45
Cote d’Ivoire	39	40	44	44
Djibouti	18	23	29	30
Equatorial Guinea	36	39	40	38
Eritrea	43	45	47	47
Ethiopia	42	32	33	37
Gabon	15	18	22	26
Gambia	34	26	31	35
Ghana	16	12	8	8
Guinea	19	34	39	43
Guinea-Bissau	12	21	27	14
Kenya	20	22	18	25
Lesotho	33	13	13	12
Liberia	21	25	37	2
Madagascar	6	20	16	15
Malawi	11	14	14	22
Mali	25	24	12	16
Mauritania	38	28	23	39
Mauritius	2	4	1	1
Mozambique	7	6	15	18
Namibia	8	9	9	13
Niger	13	16	6	9
Nigeria	24	33	35	34
Rwanda	40	42	17	21
Sao Tome and Principe	5	1	2	5
Senegal	9	5	7	6
Seychelles	10	10	10	11
Sierra Leone	23	11	19	20
Somalia	48	48	48	48
South Africa	3	2	3	4
Sudan	46	47	45	46
Swaziland	41	41	43	42
Tanzania	29	15	21	24
Togo	28	36	38	33
Uganda	35	30	32	27
Zambia	27	17	20	23
Zimbabwe	31	35	36	36

Participation and Human Rights Summary of Indicators and Principal Sources

Sub-Category 1: Participation		
1	Was the current executive elected through free and fair elections?	Our coding is based on news reports and other information on each election and on changes in power in each country. Key sources include the International Foundation for Electoral Systems (IFES) Election Guide; the Africa Elections Database; Economist Intelligence Unit country reports and profiles; BBC News country profiles; and news archives from IRIN (produced by the UN Office for the Coordination of Humanitarian Affairs) and from allafrica.com .
2	Were these executive elections contested by the opposition?	
3	Was the current legislature elected through free and fair elections?	
4	Were these legislative elections contested by the opposition?	
Sub-Category 2: Respect for Civil and Political Rights		
5	Respect for physical integrity rights, in particular absence of extrajudicial killing, disappearances, torture, and political imprisonment	The “Physical Integrity Rights Index” of the Cingranelli-Richards (CIRI) Human Rights Dataset 2008 (David L. Cingranelli and David L. Richards, <i>The Cingranelli-Richards (CIRI) Human Rights Data Project</i> , Version 2008.03.12, available at www.humanrightsdata.org .)
6	Respect for civil rights, in particular, freedom of movement, political participation, worker’s rights, freedom of speech, freedom of religion, and freedom of assembly	The “Empowerment Rights Index” and indicator on “Freedom of Assembly and Association” from the CIRI Human Rights Dataset 2008
7	Press freedom	The “Press Freedom Index” by Reporters Without Borders
8	Absence of Gender Discrimination, measured in terms of women’s rights	Based on the “Women’s Economic Rights,” “Women’s Social Rights,” and “Women’s Political Rights” scores from the CIRI Human Rights Dataset 2008

Participation and Human Rights

	Indicator	ANG	BEN	BOT	BFO	BUR	CAM	CV	CAR	CHD	COM	CON	DRC	CdI	DJI	EQG	ERI	ETH	GAB	GAM	GHA	GUI	
a) Participation in Elections	Free and Fair Executive Elections	0	2	2	1	1	1	1	1	0	1	0	0	0	1	0	0	0	1	1	2	0	
	Opposition Participation in Executive Elections	0	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0	1	1	1	1	0	
	Free and Fair Legislative Elections	0	1	2	1	1	0	1	1	0	1	1	0	0	1	0	0	0	0	0	0	1	0
	Opposition Participation in Legislative Elections	0	1	1	1	1	1	1	1	1	1	1	0	0	1	1	0	1	1	1	0	1	0
b) Respect for Civil and Political Rights	Respect for Physical Integrity Rights	4	6	6	5	1	4	7	3	2	7	4	1	2	6	3	2	1	5	3	5	4	
	Respect for Civil Rights	5	8	9	8	6	4	10	3	2	7	7	3	4	5	1	0	5	7	9	9	4	
	Press Freedom	21.5	5.5	13.0	16.0	39.8	28.3	11.5	14.5	35.5	22.5	17.0	51.0	25.0	33.0	48.0	97.5	75.0	28.5	54.0	8.5	27.5	
	Women's Rights	4	4	4	3	4	2	4	2	2	4	3	2	3	4	4	4	3	3	2	4	3	

*Note: See indicator descriptions for sources and additional information. Numbers in italics are estimates.

Summary of “Raw” Data—2006

GNB	KEN	LES	LIB	MAD	MAW	MLI	MAU	MAS	MZM	NAM	NIR	NIG	RWA	STP	SEN	SEY	SIE	SOM	SAF	SUD	SWA	TAZ	TOG	UGA	ZAM	ZIM
1	1	1	2	1	1	0	2	1	1	2	0	1	2	2	1	1	0	2	0	0	1	0	1	1	0	
1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0	1	0	0	1	1	1	1	1	
1	1	1	2	1	1	0	2	1	1	2	0	1	1	2	1	1	0	2	0	0	1	1	1	1	0	
1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0	1	0	0	1	0	1	1	1	
7	3	6	5	5	4	6	6	5	5	5	2	4	6	5	8	5	0	4	1	6	5	3	1	4	2	
8	8	10	10	9	8	10	5	11	6	10	6	5	7	11	9	6	9	0	9	0	6	4	4	7	7	0
14.5	30.3	16.0	19.0	15.0	25.5	9.0	17.5	8.0	11.5	6.0	24.5	32.2	41.0		17.5	24.5	26.0	51.3	11.3	48.1	40.5	19.8	15.0	29.8	22.5	50.0
4	2	4	5	5	4	3	3	6	4	4	3	1	6	5	2	6	3	0	5	2	3	3	3	3	3	4

Participation and Human Rights Summary of

	Indicator	ANG	BEN	BOT	BFO	BUR	CAM	CV	CAR	CHD	COM	CON	DRC	CdI	DJI	EQG	ERI	ETH	GAB	GAM	GHA
a) Participation in Elections	Free and Fair Executive Elections	0.0	100.0	100.0	50.0	50.0	50.0	50.0	50.0	0.0	50.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	50.0	50.0	100.0
	Opposition Participation in Executive Elections	0.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
	Free and Fair Legislative Elections	0.0	50.0	100.0	50.0	50.0	0.0	50.0	50.0	0.0	50.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	50.0
	Opposition Participation in Legislative Elections	0.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	0.0	100.0	100.0	0.0	100.0	100.0	0.0	100.0
b) Respect for Civil and Political Rights	Respect for Physical Integrity Rights	50.0	75.0	75.0	62.5	12.5	50.0	87.5	37.5	25.0	87.5	50.0	12.5	25.0	75.0	37.5	25.0	12.5	62.5	37.5	62.5
	Respect for Civil Rights	41.7	66.7	75.0	66.7	50.0	33.3	83.3	25.0	16.7	58.3	58.3	25.0	33.3	41.7	8.3	0.0	41.7	58.3	75.0	75.0
	Press Freedom	83.0	100.0	92.0	88.9	63.6	75.9	93.6	90.5	68.2	82.0	87.8	51.7	79.3	70.8	54.9	2.4	26.3	75.6	48.5	96.8
	Women's Rights	57.1	57.1	57.1	42.9	57.1	28.6	57.1	28.6	28.6	57.1	42.9	28.6	42.9	57.1	57.1	57.1	42.9	42.9	28.6	57.1
Participation Sub-Score		0.0	87.5	100.0	75.0	75.0	62.5	75.0	75.0	25.0	75.0	37.5	0.0	0.0	50.0	25.0	0.0	50.0	62.5	37.5	87.5
Civil and Political Rights Sub-Score		58.0	74.7	74.8	65.2	45.8	46.9	80.4	45.4	34.6	71.2	59.7	29.4	45.1	61.2	39.5	21.1	30.8	59.8	47.4	72.9
Participation and Human Rights 2006		29.0	81.1	87.4	70.1	60.4	54.7	77.7	60.2	29.8	73.1	48.6	14.7	22.6	55.6	32.2	10.6	40.4	61.2	42.5	80.2

*Note: See indicator descriptions for sources and additional information. Scores in italics are based on estimates.

Index Scores and Category Calculation—2006

	GUI GNB		KEN LES		LIB MAD		MAW MLI		MAU MAS		MZM NAM		NIR NIG		RWA STP		SEN SEY		SIE SOM		SAF SUD		SWA TAZ		TOG UGA		ZAM ZIM	
	0.0	50.0	50.0	50.0	100.0	50.0	50.0	50.0	0.0	100.0	50.0	50.0	100.0	0.0	50.0	100.0	100.0	50.0	50.0	0.0	100.0	0.0	0.0	50.0	0.0	50.0	50.0	0.0
	0.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	100.0
	0.0	50.0	50.0	50.0	100.0	50.0	50.0	50.0	0.0	100.0	50.0	50.0	100.0	0.0	50.0	50.0	100.0	50.0	50.0	0.0	100.0	0.0	0.0	50.0	50.0	50.0	50.0	0.0
	0.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	100.0	100.0
	50.0	87.5	37.5	75.0	62.5	62.5	50.0	75.0	75.0	62.5	62.5	62.5	62.5	25.0	50.0	75.0	62.5	100.0	62.5	0.0	50.0	12.5	75.0	62.5	37.5	12.5	50.0	25.0
	33.3	66.7	66.7	83.3	83.3	75.0	66.7	83.3	41.7	91.7	50.0	83.3	50.0	41.7	58.3	91.7	75.0	50.0	75.0	0.0	75.0	0.0	50.0	33.3	33.3	58.3	58.3	0.0
	76.7	90.5	73.7	88.9	85.7	89.9	78.8	96.3	87.3	97.3	93.6	99.5	79.8	71.6	62.3		87.3	79.8	78.2	51.5	93.9	54.8	62.9	84.8	89.9	74.2	82.0	52.8
	42.9	57.1	28.6	57.1	71.4	71.4	57.1	42.9	42.9	85.7	57.1	57.1	42.9	14.3	85.7	71.4	28.6	85.7	42.9	0.0	71.4	28.6	42.9	42.9	42.9	42.9	42.9	57.1
	0.0	75.0	75.0	75.0	100.0	75.0	75.0	75.0	0.0	100.0	75.0	75.0	100.0	50.0	75.0	87.5	100.0	75.0	75.0	0.0	100.0	0.0	0.0	75.0	37.5	75.0	75.0	50.0
	50.7	75.4	51.6	76.1	75.7	74.7	63.1	74.4	61.7	84.3	65.8	75.6	58.8	38.1	64.1	79.4	63.3	78.9	64.7	12.9	72.6	24.0	57.7	55.9	50.9	47.0	58.3	33.7
	25.4	75.2	63.3	75.5	87.9	74.9	69.1	74.7	30.8	92.2	70.4	75.3	79.4	44.1	69.5	83.4	81.7	76.9	69.8	6.4	86.3	12.0	28.8	65.4	44.2	61.0	66.6	41.9

Category: Participation and Human Rights

Sub-Category: Participation in Elections

INDICATORS: FREE, FAIR, AND COMPETITIVE ELECTIONS

Free, fair, and competitive elections are one of the principal channels through which citizens participate in government. They give citizens the opportunity to choose representatives who they believe will enact policies in their interests and to vote out incumbents who they believe have represented them poorly. They also allow some citizens to participate directly in government, by standing for and winning office themselves. If the election process is not fully “free and fair,” marred by corruption, intimidation, or unequal access to the media, citizens are constrained in their ability to participate fully in politics. Likewise, if key opposition actors are not allowed to participate in elections, or boycott them because of concerns about electoral practices, citizens are limited in choosing their representatives, and thus in their political participation more generally.

The four indicators addressed here assess whether the government in a given year came to power by a free, fair, and competitive election. Our assessments are based on the assessments of official (usually international) observers, as reported in the media and other fora, as well as on election results. Scores are assigned by our team, as described in detail below.

The first two indicators deal with the executive. They address (1) whether the current head of state was elected through free and fair elections and (2) whether these elections were contested by the main opposition actors. (For countries with parliamentary systems, such as Botswana, scores are based on the legislative elections, as those who are elected to the legislature in turn elect the head of state.¹)

The second two indicators deal with legislative elections. They address (1) whether the current legislature was elected through free and fair elections and (2) whether these elections were contested by the main opposition parties and candidates. (For countries with more than one legislative chamber, we focus on the lower house, which is usually the more popularly elected body.²)

Countries with the strongest scores overall include Botswana, Mauritius, São Tomé and Príncipe, Senegal, and South Africa.

The Index of African Governance team also explored the possibility of including scores for local or municipal elections, given the importance of lower levels of government. It does not include such scores at this time because of problems of comparability across countries with different political systems. In addition, reliable information upon which to base such coding was also problematic for many countries. Additional assessment of political participation in elections in each year is provided through the Civil Rights indicator in this category.

Scoring

The two indicators on free and fair elections are scored as follows: “2” indicates the executive or legislative in power for the majority of the year came to office through fully free and fair elections; “1” indicates that they came to office in partially free and fair elections; and “0” indicates that they came to office in an election that was not free and fair or did not come to power through constitutional means. The two indicators on opposition contestation are scored as follows: “1” indicates that the main opposition actors competed in these elections and “0” indicates that they did not.

If an election is held in a given year, its score is assigned for that year if the election is held in the first half of the year (before 1 July). If the election is in the second half of the year (after 1 July), the previous election is used to code that year. If there are multiple election rounds, we refer to the last date of the last round in order to determine whether we count that election

1 In Lesotho, a parliamentary constitutional monarchy, we base our scores on the legislative elections, which decide the head of government. The head of state is King Letsie III, a hereditary monarch; however, since March 1993, the monarch has had no executive or legislative powers.

2 This follows a convention in scholarly work on legislative elections.

for the current year or the next year. If there has been a change in power through some means other than elections (such as a coup d'état or a war), all indicators are assigned a value of "0" until new elections are held. (However, if particular individuals left office for reasons such as ill-health or death, and are succeeded in a constitutional manner, the score is based on the last election.)

Sources and Methods

The scoring for each of these four indicators is our own, based on news reports and other information on each election and on changes in power in each country between elections. The following key sources were consulted for every election and country: International Foundation for Electoral Systems (IFES) Election Guide; the Africa Elections Database; Economist Intelligence Unit country reports and profiles; and BBC News country profiles. If these reports left any doubt as to the appropriate coding, further information was reviewed from the IRIN news archives (produced by the UN Office for the Coordination of Humanitarian Affairs) and *allafrica.com*. The following sources were also consulted in selected cases: U.S. State Department *Country Reports on Human Rights Practices* and *Country Specific Information* reports; Freedom House's *Country at the Crossroads* and *Freedom in the World* country profiles; and articles on elections and electoral systems in selected countries from journals such as *Journal of Democracy*, *Journal of Modern African Studies*, *Electoral Studies*, and *Comparative Political Studies*.

At least two researchers assessed each election, and any discrepancies were reviewed by a third researcher. Scores were also compared with scores included in several related datasets, in particular Staffan I. Lindberg's *Democracy and Elections in Africa* (Baltimore, 2006) and the civil and political rights scores from Freedom House's *Freedom in the World* project. Our coding protocol is different from that employed in both of these projects, so discrepancies are inevitable. Nevertheless, we used these other sources as a check against our own assessments and any discrepancies noted were reviewed again.³

In reviewing the information from these sources, we focus as much as possible on the assessments made by the majority of international observers to each election. Not all elections are observed by international observers, so we also consult local observer assessments in a few cases. Because it is a common tactic in some countries for losing or opposition candidates to allege electoral irregularities even when elections are judged by observers to be largely free and fair, we make every effort to base our scores only on the assessments of neutral observers. Because it is also relatively common for different international actors to have different assessments of the same election, we make every effort to draw on assessments from several different countries or groups.

A few examples are useful in illustrating some of the specific coding rules:

If an election is held in a given year, its score is assigned based on elections for that year if the election is held in the first half of the year. If the election is in the second half of the year, the previous election is used to code that year. For instance, in the 2006 presidential elections in the Democratic Republic of the Congo (DRC), the first round was held on 30 July and the second on 29 October. Because these elections took place in the second half of the year, the score for the DRC in 2006 was not based on these elections; however, these elections will be considered in the 2007 score. These historic elections were generally praised by international observers as the first free and fair elections in four decades.

If the current executive did not come to power through elections, a score of "0" is assigned. For instance, Côte d'Ivoire held presidential elections on 22 October 1995 and 22 October 2000. In scoring the year 2000, we do not refer to the October 2000 elections as those came too late in the year. Ordinarily, the score for 2000 would be based on the October 1995 elections, which brought Henri Konan Bédié to office. However, because there was a military coup in 1999, in which Bédié was overthrown by Robert Gueï, who was still in power for most of 2000, the year 2000 score for all election indicators is "0."

³ A preliminary description of our work on elections is presented in Maya Horii, "Researcher's Report: Free and Fair Elections," in Robert I. Rotberg and Rachel M. Gisselquist, *Strengthening African Governance Ibrahim Index of African Governance: Results and Rankings 2007* (Cambridge, 2007), 211–229.

Another example comes from São Tomé and Príncipe. On 16 July 2003, a military coup deposed the government, led by president Fradique de Menezes. De Menezes had been elected on 29 July 2001 in elections declared free and fair by observers. A week after the coup, negotiations brought de Menezes back to power. Thus, the scores for 2005 are based on the 2001 elections.

Additional Assessments

There is a large literature on elections by both scholars and practitioners.⁴ The Index of African Governance reviewed a number of alternative sources. Some of the most relevant for our purposes include Polity IV and the dataset presented in Staffan I. Lindberg, *Democracy and Elections in Africa* (Baltimore, 2006); as well as Renske Doorenspleet, *Democratic Transitions: Exploring the Structural Sources of the Fourth Wave* (Boulder, 2005); Adam Przeworski, Michael E. Alvarez, José Antonio Cheibub, and Fernando Limongi, *Democracy and Development: Political Institutions and Well-Being in the World, 1950-1990* (New York, 2000); Freedom House's Freedom in the World project; and the Africa Research Program at Harvard University. These existing datasets, however, are not used in the 2007 and 2008 Indexes of African Governance either because they were not current enough or not updated regularly enough for our purposes or because their variables did not measure precisely what we sought to capture in the Index of African Governance.⁵

The Index also explored the possibility of including other and additional indicators of political participation in elections. For instance, voter turnout is one commonly used indicator. The International Institute for Democracy and Electoral Assistance's (International IDEA) Voter Turnout Website is a useful source for this information.⁶ Although this statistic provides valuable insight into a country's electoral process and citizen engagement, we do not include voter turnout as an indicator in the Index because its interpretation as a measure of political participation is problematic; a number of factors may affect whether a country has higher versus lower turnout rates, including legal requirements to vote.

Other potential indicators, for which insufficient information is currently available, include: the functioning of an independent electoral commission; whether the government makes public detailed official election results (in some countries, they are not made public); and the number of days between the polls and the announcement of election results.

4 For reviews of the relevant literature, see, for instance, David Beetham (ed.), *Defining and Measuring Democracy* (London, 1994) and Gerardo L. Munck and Jay Verkuilen, "Conceptualizing and Measuring Democracy: Evaluating Alternative Indices," *Comparative Political Studies*, XXXV (2002), 5–34.

5 For instance, highlighting electoral institutions, more than "free and fair" election outcomes. Polity IV is an especially useful source. When the 2007 Index of African Governance was produced, Polity IV was updated through 2004 only. It was updated through 2006 in October 2007. It has not been used directly in the Index because we endeavor to use the same sources and methods in each year so that the Index can be as comparable as possible year to year. Polity IV has not been updated in each year, and we only switch sources when we are relatively confident that the new source will provide data that is updated regularly enough to be used in all future Indexes.

6 See <http://www.idea.int/vt/>.

Free and Fair Executive Elections

Our scoring based on news articles and other sources

	SCALED DATA:											
	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	0	0	0	0	27	30	29	33	0.0	0.0	0.0	0.0
Benin	2	1	1	2	1	8	9	1	100.0	50.0	50.0	100.0
Botswana	2	2	2	2	1	1	1	1	100.0	100.0	100.0	100.0
Burkina Faso	1	1	1	1	8	8	9	10	50.0	50.0	50.0	50.0
Burundi	0	0	0	1	27	30	29	10	0.0	0.0	0.0	50.0
Cameroon	0	0	1	1	27	30	9	10	0.0	0.0	50.0	50.0
Cape Verde	2	2	2	1	1	1	1	10	100.0	100.0	100.0	50.0
Central African Republic	1	1	1	1	8	8	9	10	50.0	50.0	50.0	50.0
Chad	0	0	0	0	27	30	29	33	0.0	0.0	0.0	0.0
Comoros	0	0	0	1	27	30	29	10	0.0	0.0	0.0	50.0
Congo	0	0	0	0	27	30	29	33	0.0	0.0	0.0	0.0
Congo, Democratic Rep.	0	0	0	0	27	30	29	33	0.0	0.0	0.0	0.0
Cote d'Ivoire	0	0	0	0	27	30	29	33	0.0	0.0	0.0	0.0
Djibouti	1	1	1	1	8	8	9	10	50.0	50.0	50.0	50.0
Equatorial Guinea	0	0	0	0	27	30	29	33	0.0	0.0	0.0	0.0
Eritrea	0	0	0	0	27	30	29	33	0.0	0.0	0.0	0.0
Ethiopia	0	0	0	0	27	30	29	33	0.0	0.0	0.0	0.0
Gabon	1	1	1	1	8	8	9	10	50.0	50.0	50.0	50.0
Gambia	0	1	1	1	27	8	9	10	0.0	50.0	50.0	50.0
Ghana	1	1	2	2	8	8	1	1	50.0	50.0	100.0	100.0
Guinea	1	1	0	0	8	8	29	33	50.0	50.0	0.0	0.0
Guinea-Bissau	1	1	0	1	8	8	29	10	50.0	50.0	0.0	50.0
Kenya	1	1	1	1	8	8	9	10	50.0	50.0	50.0	50.0
Lesotho	0	1	1	1	27	8	9	10	0.0	50.0	50.0	50.0
Liberia	1	1	0	2	8	8	29	1	50.0	50.0	0.0	100.0
Madagascar	1	1	1	1	8	8	9	10	50.0	50.0	50.0	50.0
Malawi	1	1	1	1	8	8	9	10	50.0	50.0	50.0	50.0
Mali	1	1	1	1	8	8	9	10	50.0	50.0	50.0	50.0
Mauritania	0	0	0	0	27	30	29	33	0.0	0.0	0.0	0.0
Mauritius	2	2	2	2	1	1	1	1	100.0	100.0	100.0	100.0
Mozambique	2	2	1	1	1	1	9	10	100.0	100.0	50.0	50.0
Namibia	1	1	1	1	8	8	9	10	50.0	50.0	50.0	50.0
Niger	1	1	2	2	8	8	1	1	50.0	50.0	100.0	100.0
Nigeria	0	0	0	0	27	30	29	33	0.0	0.0	0.0	0.0
Rwanda	0	0	1	1	27	30	9	10	0.0	0.0	50.0	50.0
Sao Tome and Principe	1	2	2	2	8	1	1	1	50.0	100.0	100.0	100.0
Senegal	2	2	2	2	1	1	1	1	100.0	100.0	100.0	100.0
Seychelles	1	1	1	1	8	8	9	10	50.0	50.0	50.0	50.0
Sierra Leone	1	1	1	1	8	8	9	10	50.0	50.0	50.0	50.0
Somalia	0	0	0	0	27	30	29	33	0.0	0.0	0.0	0.0
South Africa	2	2	2	2	1	1	1	1	100.0	100.0	100.0	100.0
Sudan	0	0	0	0	27	30	29	33	0.0	0.0	0.0	0.0
Swaziland	0	0	0	0	27	30	29	33	0.0	0.0	0.0	0.0
Tanzania	0	1	1	1	27	8	9	10	0.0	50.0	50.0	50.0
Togo	0	0	0	0	27	30	29	33	0.0	0.0	0.0	0.0
Uganda	1	1	1	1	8	8	9	10	50.0	50.0	50.0	50.0
Zambia	1	1	1	1	8	8	9	10	50.0	50.0	50.0	50.0
Zimbabwe	0	0	0	0	27	30	29	33	0.0	0.0	0.0	0.0

Opposition Participation in Executive Elections

Our scoring based on news articles and other sources

	RAW DATA:				SCALED DATA:				SCALED DATA:			
					Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	0	0	0	0	25	34	33	36	0.0	0.0	0.0	0.0
Benin	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Botswana	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Burkina Faso	0	0	0	1	25	34	33	1	0.0	0.0	0.0	100.0
Burundi	0	0	0	1	25	34	33	1	0.0	0.0	0.0	100.0
Cameroon	0	0	1	1	25	34	1	1	0.0	0.0	100.0	100.0
Cape Verde	0	1	1	1	25	1	1	1	0.0	100.0	100.0	100.0
Central African Republic	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Chad	1	1	1	0	1	1	1	36	100.0	100.0	100.0	0.0
Comoros	0	0	0	1	25	34	33	1	0.0	0.0	0.0	100.0
Congo	0	0	0	0	25	34	33	36	0.0	0.0	0.0	0.0
Congo, Democratic Rep.	0	0	0	0	25	34	33	36	0.0	0.0	0.0	0.0
Cote d'Ivoire	0	0	0	0	25	34	33	36	0.0	0.0	0.0	0.0
Djibouti	1	1	0	0	1	1	33	36	100.0	100.0	0.0	0.0
Equatorial Guinea	0	0	0	0	25	34	33	36	0.0	0.0	0.0	0.0
Eritrea	0	0	0	0	25	34	33	36	0.0	0.0	0.0	0.0
Ethiopia	0	1	1	1	25	1	1	1	0.0	100.0	100.0	100.0
Gabon	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Gambia	0	1	1	1	25	1	1	1	0.0	100.0	100.0	100.0
Ghana	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Guinea	1	1	0	0	1	1	33	36	100.0	100.0	0.0	0.0
Guinea-Bissau	1	1	0	1	1	1	33	1	100.0	100.0	0.0	100.0
Kenya	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Lesotho	0	1	1	1	25	1	1	1	0.0	100.0	100.0	100.0
Liberia	1	1	0	1	1	1	33	1	100.0	100.0	0.0	100.0
Madagascar	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Malawi	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Mali	0	1	1	1	25	1	1	1	0.0	100.0	100.0	100.0
Mauritania	0	0	1	0	25	34	1	36	0.0	0.0	100.0	0.0
Mauritius	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Mozambique	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Namibia	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Niger	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Nigeria	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Rwanda	0	0	1	1	25	34	1	1	0.0	0.0	100.0	100.0
Sao Tome and Principe	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Senegal	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Seychelles	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Sierra Leone	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Somalia	0	0	0	0	25	34	33	36	0.0	0.0	0.0	0.0
South Africa	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Sudan	0	0	0	0	25	34	33	36	0.0	0.0	0.0	0.0
Swaziland	0	0	0	0	25	34	33	36	0.0	0.0	0.0	0.0
Tanzania	0	1	1	1	25	1	1	1	0.0	100.0	100.0	100.0
Togo	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Uganda	0	1	1	1	25	1	1	1	0.0	100.0	100.0	100.0
Zambia	0	1	1	1	25	1	1	1	0.0	100.0	100.0	100.0
Zimbabwe	0	1	1	1	25	1	1	1	0.0	100.0	100.0	100.0

Free and Fair Legislative Elections

Our scoring based on news articles and other sources

	SCALED DATA:											
	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	0	0	0	0	23	28	31	32	0.0	0.0	0.0	0.0
Benin	2	2	1	1	1	1	8	7	100.0	100.0	50.0	50.0
Botswana	2	2	2	2	1	1	1	1	100.0	100.0	100.0	100.0
Burkina Faso	0	1	1	1	23	9	8	7	0.0	50.0	50.0	50.0
Burundi	0	0	0	1	23	28	31	7	0.0	0.0	0.0	50.0
Cameroon	0	0	0	0	23	28	31	32	0.0	0.0	0.0	0.0
Cape Verde	1	1	1	1	7	9	8	7	50.0	50.0	50.0	50.0
Central African Republic	1	1	1	1	7	9	8	7	50.0	50.0	50.0	50.0
Chad	0	0	0	0	23	28	31	32	0.0	0.0	0.0	0.0
Comoros	0	0	1	1	23	28	8	7	0.0	0.0	50.0	50.0
Congo	0	1	1	1	23	9	8	7	0.0	50.0	50.0	50.0
Congo, Democratic Rep.	0	0	0	0	23	28	31	32	0.0	0.0	0.0	0.0
Cote d'Ivoire	0	0	0	0	23	28	31	32	0.0	0.0	0.0	0.0
Djibouti	1	1	1	1	7	9	8	7	50.0	50.0	50.0	50.0
Equatorial Guinea	0	0	0	0	23	28	31	32	0.0	0.0	0.0	0.0
Eritrea	0	0	0	0	23	28	31	32	0.0	0.0	0.0	0.0
Ethiopia	0	0	0	0	23	28	31	32	0.0	0.0	0.0	0.0
Gabon	0	0	0	0	23	28	31	32	0.0	0.0	0.0	0.0
Gambia	0	0	0	0	23	28	31	32	0.0	0.0	0.0	0.0
Ghana	1	1	1	1	7	9	8	7	50.0	50.0	50.0	50.0
Guinea	1	0	0	0	7	28	31	32	50.0	0.0	0.0	0.0
Guinea-Bissau	1	1	1	1	7	9	8	7	50.0	50.0	50.0	50.0
Kenya	1	1	1	1	7	9	8	7	50.0	50.0	50.0	50.0
Lesotho	0	1	1	1	23	9	8	7	0.0	50.0	50.0	50.0
Liberia	1	1	0	2	7	9	31	1	50.0	50.0	0.0	100.0
Madagascar	1	1	1	1	7	9	8	7	50.0	50.0	50.0	50.0
Malawi	1	1	1	1	7	9	8	7	50.0	50.0	50.0	50.0
Mali	0	0	1	1	23	28	8	7	0.0	0.0	50.0	50.0
Mauritania	0	2	2	0	23	1	1	32	0.0	100.0	100.0	0.0
Mauritius	2	2	2	2	1	1	1	1	100.0	100.0	100.0	100.0
Mozambique	2	2	1	1	1	1	8	7	100.0	100.0	50.0	50.0
Namibia	1	1	1	1	7	9	8	7	50.0	50.0	50.0	50.0
Niger	1	1	2	2	7	9	1	1	50.0	50.0	100.0	100.0
Nigeria	0	0	0	0	23	28	31	32	0.0	0.0	0.0	0.0
Rwanda	0	0	1	1	23	28	8	7	0.0	0.0	50.0	50.0
Sao Tome and Principe	2	2	2	1	1	1	1	7	100.0	100.0	100.0	50.0
Senegal	1	2	2	2	7	1	1	1	50.0	100.0	100.0	100.0
Seychelles	1	1	1	1	7	9	8	7	50.0	50.0	50.0	50.0
Sierra Leone	1	1	1	1	7	9	8	7	50.0	50.0	50.0	50.0
Somalia	0	0	0	0	23	28	31	32	0.0	0.0	0.0	0.0
South Africa	2	2	2	2	1	1	1	1	100.0	100.0	100.0	100.0
Sudan	0	0	0	0	23	28	31	32	0.0	0.0	0.0	0.0
Swaziland	0	0	0	0	23	28	31	32	0.0	0.0	0.0	0.0
Tanzania	0	1	1	1	23	9	8	7	0.0	50.0	50.0	50.0
Togo	0	0	1	1	23	28	8	7	0.0	0.0	50.0	50.0
Uganda	0	1	1	1	23	9	8	7	0.0	50.0	50.0	50.0
Zambia	1	1	1	1	7	9	8	7	50.0	50.0	50.0	50.0
Zimbabwe	0	0	0	0	23	28	31	32	0.0	0.0	0.0	0.0

Opposition Participation in Legislative Elections

Our scoring based on news articles and other sources

	RAW DATA:				SCALED DATA:				SCALED DATA:			
					Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	0	0	0	0	30	34	36	38	0.0	0.0	0.0	0.0
Benin	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Botswana	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Burkina Faso	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Burundi	0	0	0	1	30	34	36	1	0.0	0.0	0.0	100.0
Cameroon	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Cape Verde	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Central African Republic	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Chad	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Comoros	0	0	1	1	30	34	1	1	0.0	0.0	100.0	100.0
Congo	0	1	1	1	30	1	1	1	0.0	100.0	100.0	100.0
Congo, Democratic Rep.	0	0	0	0	30	34	36	38	0.0	0.0	0.0	0.0
Cote d'Ivoire	0	0	0	0	30	34	36	38	0.0	0.0	0.0	0.0
Djibouti	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Equatorial Guinea	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Eritrea	0	0	0	0	30	34	36	38	0.0	0.0	0.0	0.0
Ethiopia	0	1	1	1	30	1	1	1	0.0	100.0	100.0	100.0
Gabon	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Gambia	0	0	0	0	30	34	36	38	0.0	0.0	0.0	0.0
Ghana	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Guinea	1	0	0	0	1	34	36	38	100.0	0.0	0.0	0.0
Guinea-Bissau	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Kenya	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Lesotho	0	1	1	1	30	1	1	1	0.0	100.0	100.0	100.0
Liberia	1	1	0	1	1	1	36	1	100.0	100.0	0.0	100.0
Madagascar	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Malawi	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Mali	0	0	1	1	30	34	1	1	0.0	0.0	100.0	100.0
Mauritania	0	1	1	0	30	1	1	38	0.0	100.0	100.0	0.0
Mauritius	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Mozambique	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Namibia	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Niger	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Nigeria	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Rwanda	0	0	1	1	30	34	1	1	0.0	0.0	100.0	100.0
Sao Tome and Principe	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Senegal	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Seychelles	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Sierra Leone	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Somalia	0	0	0	0	30	34	36	38	0.0	0.0	0.0	0.0
South Africa	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Sudan	0	0	0	0	30	34	36	38	0.0	0.0	0.0	0.0
Swaziland	0	0	0	0	30	34	36	38	0.0	0.0	0.0	0.0
Tanzania	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Togo	0	0	0	0	30	34	36	38	0.0	0.0	0.0	0.0
Uganda	0	0	0	1	30	34	36	1	0.0	0.0	0.0	100.0
Zambia	0	1	1	1	30	1	1	1	0.0	100.0	100.0	100.0
Zimbabwe	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0

Category: Participation and Human Rights
Sub-Category: Respect for Civil and Political Rights

INDICATOR: RESPECT FOR PHYSICAL INTEGRITY RIGHTS

To measure respect for Physical Integrity Rights, the Index of African Governance uses the “Physical Integrity Rights Index” from The Cingranelli-Richards (CIRI) Human Rights Dataset.¹ The “Physical Integrity Rights Index” is a composite index based on CIRI’s careful coding of torture, extrajudicial killing, political imprisonment, and disappearances. Annual coding for each country is based on systematic analysis of the *U.S. State Department Country Reports on Human Rights Practices*. Scores range from 0 to 8, where “0” is “no respect for these four rights” and “8” is “full government respect for these four rights.”

The only sub-Saharan African country with a score of “8” in 2006 was the Seychelles. Cape Verde, the Comoros, and Guinea-Bissau received scores of “7,” followed by Benin, Botswana, Djibouti, Lesotho, Mali, Mauritania, São Tomé and Príncipe, and Swaziland with scores of “6.” The lowest scores went to Burundi, the Democratic Republic of the Congo, Ethiopia, Somalia, the Sudan, and Uganda.

The “CIRI Variables List & Short Descriptions” document provides the following information about each of the variables used to construct the “Physical Integrity Rights Index:”²

[KILL] Extrajudicial Killing

Extrajudicial killings are killings by government officials without due process of law. They include murders by private groups *if* instigated by government. These killings may result from the deliberate, illegal, and excessive use of lethal force by the police, security forces, or other agents of the state whether against criminal suspects, detainees, prisoners, or others. A score of 0 indicates that extrajudicial killings were practiced frequently in a given year; a score of 1 indicates that extrajudicial killings were practiced occasionally; and a score of 2 indicates that such killings did not occur in a given year.

[DISAP] Disappearance

Disappearances are cases in which people have disappeared, political motivation appears likely, and the victims have not been found. Knowledge of the whereabouts of the disappeared is, by definition, not public knowledge. However, while there is typically no way of knowing where victims are, it is typically known by whom they were taken and under what circumstances. A score of 0 indicates that disappearances have occurred frequently in a given year; a score of 1 indicates that disappearances occasionally occurred; and a score of 2 indicates that disappearances did not occur in a given year.

[TORT] Torture

Torture refers to the purposeful inflicting of extreme pain, whether mental or physical, by government officials or by private individuals at the instigation of government officials. Torture includes the use of physical and other force by police and prison guards that is cruel, inhuman, or degrading. This also includes deaths in custody due to negligence by government officials. A score of 0 indicates that torture was practiced frequently in a given year; a score of 1 indicates that torture was practiced occasionally; and a score of 2 indicates that torture did not occur in a given year.

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- 1 David L. Cingranelli and David L. Richards, “The Cingranelli-Richards (CIRI) Human Rights Dataset,” Dataset Version: 2008.03.12, available at <http://www.humanrightsdata.org> (last accessed 31 July 2008). Note that this version of the CIRI Dataset incorporates some revisions, thus scores for some Index countries may differ from those in previous years. For further information on this variable in particular, see David L. Cingranelli and David L. Richards, “Measuring the Level, Pattern, and Sequence of Government Respect for Physical Integrity Rights,” *International Studies Quarterly*, XLIII (1999), 407–418.
 - 2 Information is taken directly from CIRI Human Rights Data Project, “CIRI Variables List & Short Descriptions” (n.d.), 2, available at http://ciri.binghamton.edu/documentation/ciri_variables_short_descriptions.pdf (last accessed 22 July 2008).

[POLPRIS] Political Imprisonment

Political imprisonment refers to the incarceration of people by government officials because of: their speech; their non-violent opposition to government policies or leaders; their religious beliefs; their non-violent religious practices including proselytizing; or their membership in a group, including an ethnic or racial group. A score of 0 indicates that there were many people imprisoned because of their religious, political, or other beliefs in a given year; a score of 1 indicates that a few people were imprisoned; and a score of 2 indicates that no persons were imprisoned for any of the above reasons in a given year.

Technical Notes

For further information and details about the coding procedure, readers should refer to Cingranelli and Richards, “The Cingranelli and Richards (CIRI) Human Rights Data Project Coding Manual (Manual Version 03.13.08),” (2008), available at www.humanrightsdata.org.³

The CIRI Dataset does not include scores for 2000 and 2002 for Cape Verde, the Comoros, Djibouti, Equatorial Guinea, São Tomé and Príncipe, and the Seychelles. We estimate these scores in the Index by substituting CIRI scores for 2001. For 2002, this follows our usual practice of estimating based on the previous year’s data. This was not possible for 2000 as scores for these countries were unavailable for 1999 (and 1998).

The CIRI Dataset assigns a value of “-77,” indicating no central authority, for all of the indicators that make up the “Physical Integrity Index” for Somalia since 1991; for the Democratic Republic of the Congo for 1992–2000; and for Sierra Leone for 1997–2000. For the Index, we assign a value of “0” for Somalia for each year, for DRC in 2000, and for Sierra Leone in 2000. CIRI scores for the DRC and Sierra Leone in 2001 are “4” and “0,” respectively. We make this substitution because the Index’s approach attempts to focus on governance performance as experienced by citizens; thus, the absence of a central authority that could act to protect physical integrity rights in these cases indicates very poor or non-existent provision of this particular political good.

³ See also David L. Cingranelli and David L. Richards, “Measuring the Level, Pattern, and Sequence of Government Respect for Physical Integrity Rights,” *International Studies Quarterly*, XLIII (1999), 407–418.

Respect for Physical Integrity Rights

Physical Integrity Rights Index of the Cingranelli-Richards (CIRI) Human Rights Dataset (Version 2008.03.12)

	SCALED DATA:											
	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	1	2	3	4	39	37	31	25	12.5	25.0	37.5	50.0
Benin	7	7	7	6	5	6	4	5	87.5	87.5	87.5	75.0
Botswana	7	7	7	6	5	6	4	5	87.5	87.5	87.5	75.0
Burkina Faso	4	4	5	5	24	26	16	13	50.0	50.0	62.5	62.5
Burundi	1	0	3	1	39	46	31	43	12.5	0.0	37.5	12.5
Cameroon	1	2	4	4	39	37	25	25	12.5	25.0	50.0	50.0
Cape Verde	7	7	7	7	5	6	4	2	87.5	87.5	87.5	87.5
Central African Republic	3	4	3	3	28	26	31	33	37.5	50.0	37.5	37.5
Chad	3	4	2	2	28	26	37	38	37.5	50.0	25.0	25.0
Comoros	8	8	8	7	1	1	1	2	100.0	100.0	100.0	87.5
Congo	3	2	4	4	28	37	25	25	37.5	25.0	50.0	50.0
Congo, Democratic Rep.	0	2	2	1	44	37	37	43	0.0	25.0	25.0	12.5
Cote d'Ivoire	1	3	2	2	39	32	37	38	12.5	37.5	25.0	25.0
Djibouti	6	6	5	6	11	15	16	5	75.0	75.0	62.5	75.0
Equatorial Guinea	3	3	2	3	28	32	37	33	37.5	37.5	25.0	37.5
Eritrea	6	5	2	2	11	20	37	38	75.0	62.5	25.0	25.0
Ethiopia	2	2	0	1	33	37	47	43	25.0	25.0	0.0	12.5
Gabon	8	7	5	5	1	6	16	13	100.0	87.5	62.5	62.5
Gambia	6	7	6	3	11	6	10	33	75.0	87.5	75.0	37.5
Ghana	5	6	6	5	19	15	10	13	62.5	75.0	75.0	62.5
Guinea	2	4	5	4	33	26	16	25	25.0	50.0	62.5	50.0
Guinea-Bissau	7	5	6	7	5	20	10	2	87.5	62.5	75.0	87.5
Kenya	2	2	3	3	33	37	31	33	25.0	25.0	37.5	37.5
Lesotho	6	7	6	6	11	6	10	5	75.0	87.5	75.0	75.0
Liberia	0	1	7	5	44	45	4	13	0.0	12.5	87.5	62.5
Madagascar	7	2	4	5	5	37	25	13	87.5	25.0	50.0	62.5
Malawi	7	6	5	4	5	15	16	25	87.5	75.0	62.5	50.0
Mali	6	8	7	6	11	1	4	5	75.0	100.0	87.5	75.0
Mauritania	6	6	3	6	11	15	31	5	75.0	75.0	37.5	75.0
Mauritius	6	6	7	5	11	15	4	13	75.0	75.0	87.5	62.5
Mozambique	2	4	5	5	33	26	16	13	25.0	50.0	62.5	62.5
Namibia	5	4	6	5	19	26	10	13	62.5	50.0	75.0	62.5
Niger	6	7	6	5	11	6	10	13	75.0	87.5	75.0	62.5
Nigeria	1	3	2	2	39	32	37	38	12.5	37.5	25.0	25.0
Rwanda	2	3	4	4	33	32	25	25	25.0	37.5	50.0	50.0
Sao Tome and Principe	8	8	8	6	1	1	1	5	100.0	100.0	100.0	75.0
Senegal	4	5	5	5	24	20	16	13	50.0	62.5	62.5	62.5
Seychelles	8	8	8	8	1	1	1	1	100.0	100.0	100.0	100.0
Sierra Leone	0	8	5	5	44	1	16	13	0.0	100.0	62.5	62.5
Somalia	0	0	0	0	44	46	47	48	0.0	0.0	0.0	0.0
South Africa	4	5	4	4	24	20	25	25	50.0	62.5	50.0	50.0
Sudan	0	0	1	1	44	46	46	43	0.0	0.0	12.5	12.5
Swaziland	5	7	5	6	19	6	16	5	62.5	87.5	62.5	75.0
Tanzania	3	7	3	5	28	6	31	13	37.5	87.5	37.5	62.5
Togo	5	5	2	3	19	20	37	33	62.5	62.5	25.0	37.5
Uganda	2	3	2	1	33	32	37	43	25.0	37.5	25.0	12.5
Zambia	5	5	4	4	19	20	25	25	62.5	62.5	50.0	50.0
Zimbabwe	4	2	2	2	24	37	37	38	50.0	25.0	25.0	25.0

Category: Participation and Human Rights

Sub-Category: Respect for Human Rights

INDICATOR: RESPECT FOR CIVIL RIGHTS

To measure respect for civil rights, the Index of African Governance uses the “Empowerment Rights Index” and the indicator on “Freedom of Assembly and Association” from the Cingranelli-Richards (CIRI) Human Rights Dataset.¹ The “Empowerment Rights Index” is an additive index based on coding in the CIRI dataset on freedom of movement, freedom of speech, workers’ rights, political participation, and freedom of religion. Annual coding for each country is based on a systematic analysis of the *U.S. State Department Country Reports on Human Rights Practices*. Scores range from 0 to 10, where “0” is “no respect for these five rights” and “10” is “full government respect for these five rights.” The Index of African Governance adds “Freedom of Assembly and Association” to this index so that total values for this indicator range from 0 (no respect) to 12 (full government respect).

During 2006, no sub-Saharan African country received a score of “12.” The highest scores (11) went to Mauritius and São Tomé and Príncipe. The worst scores (0) went to Eritrea, Somalia (our estimate), and Zimbabwe.

The “CIRI Variables List & Short Descriptions” document provides the following information about each of the variables used to construct its Empowerment Rights Index and for Freedom of Assembly and Association:²

[SPEECH] Freedom of Speech

This variable indicates the extent to which freedoms of speech and press are affected by government censorship, including ownership of media outlets. Censorship is any form of restriction that is placed on freedom of the press, speech or expression. Expression may be in the form of art or music. A score of 0 indicates that government censorship of the media was complete; a score of 1 indicates that there was some government censorship of the media; and a score of 2 indicates that there was no government censorship of the media in a given year.

[RELFRE] Freedom of Religion

This variable indicates the extent to which the freedom of citizens to exercise and practice their religious beliefs is subject to actual government restrictions. Citizens should be able to freely practice their religion and proselytize (attempt to convert) other citizens to their religion as long as such attempts are done in a non-coercive, peaceful manner. A score of 0 indicates that the government restricted some religious practices, while a score of 1 indicates that the government placed no restrictions on religious practices in a year.

[MOVE] Freedom of Movement

This variable indicates citizens’ freedom to travel within their own country and to leave and return to that country. A score of 0 indicates that domestic and foreign travel was restricted in a given year, while a score of 1 indicates that such travel was generally unrestricted....

1 David L. Cingranelli and David L. Richards, “The Cingranelli-Richards (CIRI) Human Rights Dataset,” Dataset Version: 2008.03.12, available at <http://www.humanrightsdata.org> (last accessed 31 July 2008). Note that this version of the CIRI Dataset incorporates some revisions, thus scores for some Index countries may differ from those in previous years. For further information on this variable in particular, see David L. Richards, Ronald Gellensy, and David Sacko, “Money With A Mean Streak? Foreign Economic Penetration and Government Respect for Human Rights in Developing Countries,” *International Studies Quarterly*, XLV (2001), 219–239.

2 Information is taken directly from CIRI Human Rights Data Project, “CIRI Variables List & Short Descriptions” (n.d.), 2–3, available at http://ciri.binghamton.edu/documentation/ciri_variables_short_descriptions.pdf (last accessed 22 July 2008).

[ELECSD] Electoral Self-Determination...

This variable indicates to what extent citizens enjoy freedom of political choice and the legal right and ability in practice to change the laws and officials that govern them through free and fair elections. This right is sometimes known as the right to self-determination. A score of 0 indicates that the right to self-determination through free and fair elections did not exist in law or practice during the year in question. A score of 1 indicates that while citizens had the legal right to self-determination, there were some limitations to the fulfillment of this right in practice. Therefore, in states receiving a 1, political participation was only moderately free and open. A score of 2 indicates that political participation was very free and open during the year in question and citizens had the right to self-determination through free and fair elections in both law and practice.

[WORKER] Workers' Rights

Workers should have freedom of association at their workplaces and the right to bargain collectively with their employers. This variable indicates the extent to which workers enjoy these and other internationally recognized rights at work, including a prohibition on the use of any form of forced or compulsory labor; a minimum age for the employment of children; and acceptable conditions of work with respect to minimum wages, hours of work, and occupational safety and health. A score of 0 indicates that workers' rights were severely restricted; a score of 1 indicates that workers' rights were somewhat restricted; and a score of 2 indicates that workers' rights were fully protected during the year in question.

[ASSN] Freedom of Assembly and Association

It is an internationally recognized right of citizens to assemble freely and to associate with other persons in political parties, trade unions, cultural organizations, or other special-interest groups. This variable indicates the extent to which the freedoms of assembly and association are subject to actual governmental limitations or restrictions (as opposed to strictly legal protections). A score of 0 indicates that citizens' rights to freedom of assembly or association were severely restricted or denied completely to all citizens; a score of 1 indicates that these rights were limited for all citizens or severely restricted or denied for select groups; and a score of 2 indicates that these rights were virtually unrestricted and freely enjoyed by practically all citizens in a given year.

The component parts of this indicator thus partially overlap with several other indicators in this category, in particular the Free and Fair Elections indicators and Press Freedom. We include all nevertheless because of the importance of these political and civil rights.³ We also include them because CIRI's measures encompass slightly different criteria and are derived from different sources of information.

Technical Notes

For further information and details about the coding procedure, readers should refer to Cingranelli and Richards, "The Cingranelli and Richards (CIRI) Human Rights Data Project Coding Manual (Manual Version 03.13.08)," (2008), available at www.humanrightsdata.org.⁴

The CIRI Dataset does not include scores for Empowerment Rights and for Freedom of Assembly and Association for 2000 and 2002 for Cape Verde, the Comoros, Djibouti, Equatorial Guinea, São Tomé and Príncipe, and the Seychelles. We estimate these scores in the Index by substituting CIRI scores for 2001. For 2002, this follows our usual practice of estimating based on the previous year's data. This was not possible for 2000 as scores for these countries were unavailable for 1999 (and 1998).

³ Effectively, this means that we place additional weight on political participation and on freedom of speech as components of Participation and Human Rights.

⁴ See also David L. Richards, Ronald Gelleny, and David Sacko, "Money With A Mean Streak? Foreign Economic Penetration and Government Respect for Human Rights in Developing Countries," *International Studies Quarterly*, XLV (2001), 219–239.

For all of the indicators that make up the Empowerment Rights index, the CIRI Dataset assigns a value of “-77,” indicating no central authority for Somalia since 1991; for the Democratic Republic of the Congo for 1992–2000; and for Sierra Leone for 1997–2000. For the Index of African Governance, we thus assign a value of “0” for Somalia for each year, for the DRC in 2000, and for Sierra Leone in 2000. CIRI scores for the DRC and Sierra Leone in 2001 are “0” and “9,” respectively. We make this substitution because the Index’s approach attempts to focus on governance performance as experienced by citizens; thus, the absence of central authority that could act to protect rights in these cases indicates very poor provision of this particular political good.

The CIRI Dataset also assigns a value of “-77” for Freedom of Assembly for Somalia over the years of this Index. For 2000, the DRC and Sierra Leone receive Freedom of Assembly scores of “0” and “2” respectively. Thus, the Index of African Governance assigns 2000 scores as follows: DRC = $0 + 0 = “0,”$ Sierra Leone = $0 + 2 = “2,”$ and Somalia = $0 + 0 = “0.”$

Respect for Civil Rights

Empowerment Rights Index and Freedom of Assembly and Association indicator of The Cingranelli-Richards (CIRI) Human Rights Dataset (Version 2008.03.12)

	SCALED DATA:											
	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	4	3	5	5	32	40	27	31	33.3	25.0	41.7	41.7
Benin	12	9	8	8	1	14	11	15	100.0	75.0	66.7	66.7
Botswana	10	10	7	9	7	7	18	8	83.3	83.3	58.3	75.0
Burkina Faso	8	9	8	8	15	14	11	15	66.7	75.0	66.7	66.7
Burundi	3	4	5	6	41	32	27	26	25.0	33.3	41.7	50.0
Cameroon	6	5	2	4	23	26	38	36	50.0	41.7	16.7	33.3
Cape Verde	10	10	10	10	7	7	4	3	83.3	83.3	83.3	83.3
Central African Republic	6	7	3	3	23	22	33	41	50.0	58.3	25.0	25.0
Chad	6	5	2	2	23	26	38	43	50.0	41.7	16.7	16.7
Comoros	8	8	8	7	15	21	11	20	66.7	66.7	66.7	58.3
Congo	7	10	7	7	19	7	18	20	58.3	83.3	58.3	58.3
Congo, Democratic Rep.	0	1	1	3	45	44	42	41	0.0	8.3	8.3	25.0
Cote d'Ivoire	4	4	5	4	32	32	27	36	33.3	33.3	41.7	33.3
Djibouti	4	4	3	5	32	32	33	31	33.3	33.3	25.0	41.7
Equatorial Guinea	0	0	1	1	45	45	42	44	0.0	0.0	8.3	8.3
Eritrea	4	0	0	0	32	45	46	45	33.3	0.0	0.0	0.0
Ethiopia	5	4	6	5	29	32	23	31	41.7	33.3	50.0	41.7
Gabon	9	10	6	7	12	7	23	20	75.0	83.3	50.0	58.3
Gambia	6	9	7	9	23	14	18	8	50.0	75.0	58.3	75.0
Ghana	7	9	8	9	19	14	11	8	58.3	75.0	66.7	75.0
Guinea	4	3	7	4	32	40	18	36	33.3	25.0	58.3	33.3
Guinea-Bissau	8	5	10	8	15	26	4	15	66.7	41.7	83.3	66.7
Kenya	5	6	9	8	29	23	9	15	41.7	50.0	75.0	66.7
Lesotho	9	11	11	10	12	2	1	3	75.0	91.7	91.7	83.3
Liberia	6	5	10	10	23	26	4	3	50.0	41.7	83.3	83.3
Madagascar	10	6	5	9	7	23	27	8	83.3	50.0	41.7	75.0
Malawi	8	9	8	8	15	14	11	15	66.7	75.0	66.7	66.7
Mali	12	11	10	10	1	2	4	3	100.0	91.7	83.3	83.3
Mauritania	4	5	3	5	32	26	33	31	33.3	41.7	25.0	41.7
Mauritius	12	12	11	11	1	1	1	1	100.0	100.0	91.7	91.7
Mozambique	9	10	6	6	12	7	23	26	75.0	83.3	50.0	50.0
Namibia	11	11	10	10	4	2	4	3	91.7	91.7	83.3	83.3
Niger	10	9	8	6	7	14	11	26	83.3	75.0	66.7	50.0
Nigeria	4	3	3	5	32	40	33	31	33.3	25.0	25.0	41.7
Rwanda	6	4	2	7	23	32	38	20	50.0	33.3	16.7	58.3
Sao Tome and Principe	11	11	11	11	4	2	1	1	91.7	91.7	91.7	91.7
Senegal	10	10	8	9	7	7	11	8	83.3	83.3	66.7	75.0
Seychelles	5	5	5	6	29	26	27	26	41.7	41.7	41.7	50.0
Sierra Leone	2	10	7	9	43	7	18	8	16.7	83.3	58.3	75.0
Somalia	0	0	0	0	45	45	46	45	0.0	0.0	0.0	0.0
South Africa	11	11	9	9	4	2	9	8	91.7	91.7	75.0	75.0
Sudan	0	0	1	0	45	45	42	45	0.0	0.0	8.3	0.0
Swaziland	2	2	1	6	43	43	42	26	16.7	16.7	8.3	50.0
Tanzania	7	6	4	4	19	23	32	36	58.3	50.0	33.3	33.3
Togo	4	4	3	4	32	32	33	36	33.3	33.3	25.0	33.3
Uganda	3	4	2	7	41	32	38	20	25.0	33.3	16.7	58.3
Zambia	7	9	6	7	19	14	23	20	58.3	75.0	50.0	58.3
Zimbabwe	4	4	0	0	32	32	46	45	33.3	33.3	0.0	0.0

Category: Participation and Human Rights
Sub-Category: Respect for Civil and Political Rights

INDICATOR: PRESS FREEDOM

The measure of press freedom included in the Index of African Governance is the “Worldwide Press Freedom Index” developed by Reporters Without Borders (*Reporters sans frontières* [RSF]). The RSF’s Press Freedom Index is based on a survey of partner organizations, journalists, and others. It includes fifty questions, focused on the year prior to its publication. It includes questions about the number of journalists who were victims of various forms of intimidation and yes/no questions about whether journalists were threatened and attacked, and about the presence of surveillance, censorship, concentration of media ownership, and other limits to press freedom.¹ Lower scores on the RSF Index indicate a freer press and higher scores, a less free press.

In terms of press freedom, sub-Saharan Africa’s stand-out performer is Benin, which ranks first in the region in all years of the Index of African Governance. At the other end of the spectrum, its worst performer in all years was Eritrea, which ranked last in all years. Other top performers include Namibia, Mauritius, and South Africa (which nevertheless experienced declines in press freedom from 2005 to 2006). In addition to Eritrea, other countries with the worst press freedom include the Democratic Republic of the Congo, Equatorial Guinea, Somalia, and Zimbabwe.

In general, the Index of African Governance avoids the use of survey data. It makes an exception for the RSF Index for several reasons. First, the RSF Index usefully aggregates a variety of information about various forms of intimidation and limitations on press freedom. Second, although based on information gathered from a survey of experts, the RSF Index’s questions are in keeping with the kinds of objective, factual data that the Index seeks to capture.²

While we find the RSF Index most suitable for our purposes in the Index of African Governance, a number of other projects address press freedom and various related topics, providing useful references for further reading. For global coverage, other key sources include the Committee to Protect Journalists’ annual worldwide survey, *Attacks on the Press*; Freedom House’s *Freedom of the Press*; the International Research and Exchanges Board’s *Media Sustainability Index*; and the World Association of Newspapers’ *World Press Trends*.³ On Africa specifically, useful sources include:

- African Commission on Human and Peoples’ Rights, Special Rapporteur on Freedom of Expression (www.achpr.org/english/_info/index_free_exp_en.html).
- The Media Institute of Southern Africa (<http://www.misa.org/>), which includes chapters in Angola, Botswana, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia, and Zimbabwe.
- BBC World Service’s “African Media Development Initiative,” which includes reports on the media in seventeen countries (Angola, Botswana, Cameroon, the Democratic Republic of the Congo, Ethiopia, Ghana, Kenya, Mozambique, Nigeria, Senegal, Somalia, South Africa, Sierra Leone, Tanzania, Uganda, Zambia, and Zimbabwe). (For further information, see http://www.bbc.co.uk/worldservice/trust/specials/1552_trust_amdi/index.shtml).

Technical Notes

The 2007 Index of African Governance also included a measure of “journalists killed.” We do not include this additional measure this year because we found that the Press Freedom Index alone, which takes into account threats and attacks on journalists, as well as other aspects of freedom of the press, provides a more reliable measure.

Each year’s RSF Worldwide Press Freedom Index covers the period from September of the previous year to October of the current year. Thus, we use the 2006 RSF Index for 2006, the 2005 RSF Index for 2005, and so on.

1 A complete list of questions for 2006 can be found at http://www.rsf.org/article.php?id_article=19390 (last accessed 31 July 2008).

2 We recognize that there may be some debate about what qualifies as intimidation or censorship. Studies focused on press freedom might choose to focus on such a question.

3 For a useful summary and analysis, see Andrew Puddephatt, “Diagnostic Tools and Performance Indicators,” paper prepared for Harvard-World Bank Workshop on “The Role of the News Media in the Governance Reform Agenda,” 29–31 May 2008.

The first RSF Index was published in October 2002, corresponding to the period September 2001 to October 2002. Thus, figures are unavailable for the year 2000. We roughly estimate these figures using the 2002 RSF Index. Available figures for Africa suggest that these figures should be quite well correlated with the “real” figures: the year-to-year correlation between the data that we do have for Africa is 0.87 for 2003 and 2004, 0.91 for 2004 and 2005, and 0.82 for 2003 and 2005.

No RSF Index values are available for São Tomé and Príncipe.

No RSF Index values are available for Botswana, Lesotho, and Somalia in 2002. Figures given are from 2003.

Press Freedom

Reporters without Borders (Annual Worldwide Press Freedom Index)

	SCALED DATA:											
	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	30.2	30.2	18.0	21.5	34	34	15	21	73.8	73.8	86.7	83.0
Benin	6.0	6.0	5.5	5.5	1	1	1	1	99.5	99.5	100.0	100.0
Botswana	13.0	13.0	14.0	13.0	6	6	9	9	92.0	92.0	91.0	92.0
Burkina Faso	27.8	27.8	19.0	16.0	30	30	16	14	76.4	76.4	85.7	88.9
Burundi	24.5	24.5	23.0	39.8	24	24	25	37	79.8	79.8	81.4	63.6
Cameroon	28.8	28.8	20.5	28.3	32	32	21	30	75.2	75.2	84.1	75.9
Cape Verde	13.8	13.8	6.0	11.5	7	7	3	7	91.2	91.2	99.5	93.6
Central African Republic	21.5	21.5	19.8	14.5	18	18	20	10	83.0	83.0	84.9	90.5
Chad	28.8	28.8	30.0	35.5	31	31	31	36	75.3	75.3	74.0	68.2
Comoros	20.5	20.5	22.0	22.5	14	14	23	22	84.1	84.1	82.5	82.0
Congo	23.2	23.2	17.0	17.0	22	22	11	16	81.3	81.3	87.8	87.8
Congo, Democratic Rep.	40.8	40.8	57.3	51.0	42	42	44	43	62.6	62.6	45.0	51.7
Cote d'Ivoire	19.0	19.0	52.3	25.0	13	13	43	26	85.7	85.7	50.4	79.3
Djibouti	31.3	31.3	37.0	33.0	36	36	34	35	72.7	72.7	66.6	70.8
Equatorial Guinea	42.8	42.8	44.0	48.0	44	44	41	40	60.5	60.5	59.2	54.9
Eritrea	83.7	83.7	99.8	97.5	47	47	47	47	17.1	17.1	0.0	2.4
Ethiopia	37.5	37.5	42.0	75.0	39	39	40	46	66.1	66.1	61.3	26.3
Gabon	20.5	20.5	26.0	28.5	14	14	29	31	84.1	84.1	78.2	75.6
Gambia	22.5	22.5	41.0	54.0	19	19	39	45	82.0	82.0	62.3	48.5
Ghana	23.0	23.0	15.0	8.5	21	21	10	4	81.4	81.4	89.9	96.8
Guinea	26.0	26.0	26.0	27.5	27	27	29	29	78.2	78.2	78.2	76.7
Guinea-Bissau	30.3	30.3	17.0	14.5	35	35	11	10	73.7	73.7	87.8	90.5
Kenya	24.8	24.8	30.0	30.3	26	26	31	33	79.6	79.6	74.0	73.7
Lesotho	17.8	17.8	19.5	16.0	11	11	19	14	87.0	87.0	85.1	88.9
Liberia	37.8	37.8	20.5	19.0	41	41	21	19	65.8	65.8	84.1	85.7
Madagascar	22.8	22.8	24.5	15.0	20	20	28	12	81.7	81.7	79.8	89.9
Malawi	27.7	27.7	22.8	25.5	29	29	24	27	76.5	76.5	81.7	78.8
Mali	12.5	12.5	8.0	9.0	5	5	6	5	92.6	92.6	97.3	96.3
Mauritania	41.3	41.3	40.0	17.5	43	43	38	17	62.0	62.0	63.4	87.3
Mauritius	9.5	9.5	7.5	8.0	4	4	5	3	95.8	95.8	97.9	97.3
Mozambique	23.5	23.5	10.5	11.5	23	23	7	7	80.9	80.9	94.7	93.6
Namibia	8.0	8.0	5.5	6.0	3	3	1	2	97.3	97.3	100.0	99.5
Niger	18.5	18.5	13.0	24.5	12	12	8	24	86.2	86.2	92.0	79.8
Nigeria	15.5	15.5	38.8	32.2	9	9	36	34	89.4	89.4	64.7	71.6
Rwanda	37.5	37.5	38.0	41.0	39	39	35	39	66.1	66.1	65.5	62.3
Sao Tome and Principe												
Senegal	14.0	14.0	19.0	17.5	8	8	16	17	91.0	91.0	85.7	87.3
Seychelles	20.8	20.8	17.0	24.5	16	16	11	24	83.8	83.8	87.8	79.8
Sierra Leone	24.5	24.5	39.5	26.0	24	24	37	28	79.8	79.8	63.9	78.2
Somalia	45.0	45.0	59.0	51.3	45	45	45	44	58.1	58.1	43.2	51.5
South Africa	7.5	7.5	6.5	11.3	2	2	4	6	97.9	97.9	98.9	93.9
Sudan	36.0	36.0	44.0	48.1	38	38	41	41	67.6	67.6	59.2	54.8
Swaziland	29.0	29.0	35.0	40.5	33	33	33	38	75.1	75.1	68.7	62.9
Tanzania	21.3	21.3	17.5	19.8	17	17	14	20	83.3	83.3	87.3	84.8
Togo	31.5	31.5	23.8	15.0	37	37	27	12	72.4	72.4	80.6	89.9
Uganda	17.0	17.0	19.3	29.8	10	10	18	32	87.8	87.8	85.4	74.2
Zambia	26.8	26.8	23.0	22.5	28	28	25	22	77.5	77.5	81.4	82.0
Zimbabwe	48.3	48.3	64.3	50.0	46	46	46	42	54.6	54.6	37.7	52.8

Category: Participation and Human Rights

Sub-Category: Civil and Political Rights

INDICATOR: ABSENCE OF GENDER DISCRIMINATION, MEASURED IN TERMS OF WOMEN'S RIGHTS

This indicator that we have created measures respect for women's political, social, and economic rights. It is an additive indicator from three variables from the Cingranelli-Richards (CIRI) Human Rights Dataset: Women's Political Rights, Women's Economic Rights, and Women's Social Rights.¹ The latest version of the CIRI Human Rights Dataset does not include scores for Women's Social Rights for 2005 and 2006. The Index uses preliminary estimates for these years provided to us by the CIRI project.

CIRI scores for each of these variables for each country are coded on a scale of 0 (no rights) to 3 (rights guaranteed by law and in practice), based on a systematic coding of information contained in the *U.S. State Department Country Reports on Human Rights Practices*. Thus, the overall values may range from 0 (no rights in any of the three areas) to 9 (rights guaranteed by law and in practice in all three areas).

In 2006, the highest scores (6) went to Mauritius, Rwanda, and the Seychelles. The worst scores were received by Nigeria (1) and Somalia (0, our estimate).

CIRI's scoring of each indicator is based on a detailed coding protocol based on a number of internationally recognized rights related to gender. CIRI's reports detail the following rights related to each sub-indicator:²

For Women's Economic Rights:

- Equal pay for equal work
- Free choice of profession or employment without the need to obtain a husband or male relative's consent
- The right to gainful employment without the need to obtain a husband or male relative's consent
- Equality in hiring and promotion practices
- Job security (maternity leave, unemployment benefits, no arbitrary firing or layoffs, etc...)
- Non-discrimination by employers
- The right to be free from sexual harassment in the workplace
- The right to work at night
- The right to work in occupations classified as dangerous
- The right to work in the military and the police force

For Women's Political Rights:

- The right to vote
- The right to run for political office
- The right to hold elected and appointed government positions
- The right to join political parties
- The right to petition government officials

1 David L. Cingranelli and David L. Richards, "The Cingranelli-Richards (CIRI) Human Rights Dataset," Dataset Version: 2008.03.12, available at <http://www.humanrightsdata.org> (last accessed 1 August 2008).

2 Indented lists are taken directly from CIRI Human Rights Data Project, "CIRI Variables List & Short Descriptions" (n.d.), 4–5, available at http://ciri.binghamton.edu/documentation/ciri_variables_short_descriptions.pdf (last accessed 22 July 2008).

For Women's Social Rights:

- The right to equal inheritance
- The right to enter into marriage on a basis of equality with men
- The right to travel abroad
- The right to obtain a passport
- The right to confer citizenship to children or a husband
- The right to initiate a divorce
- The right to own, acquire, manage, and retain property brought into marriage
- The right to participate in social, cultural, and community activities
- The right to an education
- The freedom to choose a residence/domicile
- Freedom from female genital mutilation of children and of adults without their consent
- Freedom from forced sterilization

A score of “0” in each of these sub-indicators indicates that these rights are not guaranteed by law. A score of “3” indicates legal guarantees as well as respect in practice. For further information and details about the coding procedure, readers should refer to Cingranelli and Richards, “The Cingranelli and Richards (CIRI) Human-Rights Data Project Coding Manual (Manual Version 03.13.08),” (2008), available at www.humanrightsdata.org.

Technical Notes

The Women's Rights indicator used in the Index of African Governance is a simple additive index of all three Women's Rights variables from the CIRI Human Rights Data Project. The following tables show the data for each indicator in turn, followed by the overall Women's Rights indicator included directly in the Index.

For each of its women's rights variables, the CIRI Dataset does not include scores for 2000 and 2002 for Cape Verde, the Comoros, Djibouti, Equatorial Guinea, São Tomé and Príncipe, and the Seychelles. We estimate these scores in the Index by substituting CIRI scores for 2001. For 2002, this follows our usual practice of estimating based on the previous year's data. This was not possible for 2000 as scores for these countries were unavailable for 1999 (and 1998).

The CIRI Dataset assigns a value of “-77,” indicating no central authority, for Somalia for all variables since 1991; for the Democratic Republic of the Congo for 1992–2000; and for Sierra Leone for 1997–2000. For the Index, we assign a value of “0” for Somalia for each year, for the DRC in 2000, and for Sierra Leone in 2000. We make this substitution because the Index's approach attempts to focus on governance performance as experienced by citizens; thus, the absence of central authority that could act to protect rights in these cases indicates very poor provision of these political goods.

For Women's Economic Rights, the CIRI Dataset does not code Uganda for this variable for 1996–2001 because of insufficient information (assigned “-999”). Based on its score for 2002, we assign a score of “1” for 2000.

Women's Economic Rights

From the Cingranelli-Richards (CIRI) Human Rights Dataset (Version 2008.03.12)

	RAW DATA:				SCALED DATA:				SCALED Overall 0-100			
					Ranked							
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	1	1	1	1	9	9	5	3	50.0	50.0	50.0	50.0
Benin	1	1	1	1	9	9	5	3	50.0	50.0	50.0	50.0
Botswana	1	1	1	1	9	9	5	3	50.0	50.0	50.0	50.0
Burkina Faso	0	0	1	1	43	46	5	3	0.0	0.0	50.0	50.0
Burundi	1	1	1	1	9	9	5	3	50.0	50.0	50.0	50.0
Cameroon	1	1	0	0	9	9	40	39	50.0	50.0	0.0	0.0
Cape Verde	1	1	1	1	9	9	5	3	50.0	50.0	50.0	50.0
Central African Republic	1	1	0	0	9	9	40	39	50.0	50.0	0.0	0.0
Chad	1	1	0	0	9	9	40	39	50.0	50.0	0.0	0.0
Comoros	1	1	1	1	9	9	5	3	50.0	50.0	50.0	50.0
Congo	1	1	1	1	9	9	5	3	50.0	50.0	50.0	50.0
Congo, Democratic Rep.	0	1	0	0	43	9	40	39	0.0	50.0	0.0	0.0
Cote d'Ivoire	2	2	1	1	1	1	5	3	100.0	100.0	50.0	50.0
Djibouti	1	1	1	2	9	9	5	1	50.0	50.0	50.0	100.0
Equatorial Guinea	1	1	1	1	9	9	5	3	50.0	50.0	50.0	50.0
Eritrea	1	1	1	1	9	9	5	3	50.0	50.0	50.0	50.0
Ethiopia	1	1	1	1	9	9	5	3	50.0	50.0	50.0	50.0
Gabon	1	1	1	1	9	9	5	3	50.0	50.0	50.0	50.0
Gambia	1	1	1	0	9	9	5	39	50.0	50.0	50.0	0.0
Ghana	1	2	1	1	9	1	5	3	50.0	100.0	50.0	50.0
Guinea	1	2	1	1	9	1	5	3	50.0	100.0	50.0	50.0
Guinea-Bissau	1	1	0	1	9	9	40	3	50.0	50.0	0.0	50.0
Kenya	1	1	1	0	9	9	5	39	50.0	50.0	50.0	0.0
Lesotho	0	0	0	1	43	46	40	3	0.0	0.0	0.0	50.0
Liberia	1	1	1	1	9	9	5	3	50.0	50.0	50.0	50.0
Madagascar	2	2	1	1	1	1	5	3	100.0	100.0	50.0	50.0
Malawi	1	1	1	1	9	9	5	3	50.0	50.0	50.0	50.0
Mali	1	1	1	1	9	9	5	3	50.0	50.0	50.0	50.0
Mauritania	2	2	2	1	1	1	1	3	100.0	100.0	100.0	50.0
Mauritius	1	1	2	2	9	9	1	1	50.0	50.0	100.0	100.0
Mozambique	2	1	1	1	1	9	5	3	100.0	50.0	50.0	50.0
Namibia	2	2	1	1	1	1	5	3	100.0	100.0	50.0	50.0
Niger	1	1	0	1	9	9	40	3	50.0	50.0	0.0	50.0
Nigeria	1	1	1	0	9	9	5	39	50.0	50.0	50.0	0.0
Rwanda	1	1	2	1	9	9	1	3	50.0	50.0	100.0	50.0
Sao Tome and Principe	1	1	1	1	9	9	5	3	50.0	50.0	50.0	50.0
Senegal	1	1	1	0	9	9	5	39	50.0	50.0	50.0	0.0
Seychelles	2	2	2	1	1	1	1	3	100.0	100.0	100.0	50.0
Sierra Leone	0	1	1	1	43	9	5	3	0.0	50.0	50.0	50.0
Somalia	0	0	0	0	43	46	40	39	0.0	0.0	0.0	0.0
South Africa	2	2	1	1	1	1	5	3	100.0	100.0	50.0	50.0
Sudan	0	1	1	0	43	9	5	39	0.0	50.0	50.0	0.0
Swaziland	1	1	1	1	9	9	5	3	50.0	50.0	50.0	50.0
Tanzania	1	1	1	1	9	9	5	3	50.0	50.0	50.0	50.0
Togo	2	1	0	1	1	9	40	3	100.0	50.0	0.0	50.0
Uganda	1	1	1	1	9	9	5	3	50.0	50.0	50.0	50.0
Zambia	1	1	1	1	9	9	5	3	50.0	50.0	50.0	50.0
Zimbabwe	1	1	1	1	9	9	5	3	50.0	50.0	50.0	50.0

Women's Political Rights

From the Cingranelli-Richards (CIRI) Human Rights Dataset (Version 2008.03.12)

	SCALED DATA:											
	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	2	2	2	2	2	4	5	7	66.7	66.7	66.7	66.7
Benin	2	2	2	2	2	4	5	7	66.7	66.7	66.7	66.7
Botswana	2	2	2	2	2	4	5	7	66.7	66.7	66.7	66.7
Burkina Faso	2	2	2	2	2	4	5	7	66.7	66.7	66.7	66.7
Burundi	2	2	3	3	2	4	1	1	66.7	66.7	100.0	100.0
Cameroon	2	2	2	2	2	4	5	7	66.7	66.7	66.7	66.7
Cape Verde	2	2	2	2	2	4	5	7	66.7	66.7	66.7	66.7
Central African Republic	2	2	2	2	2	4	5	7	66.7	66.7	66.7	66.7
Chad	2	2	2	2	2	4	5	7	66.7	66.7	66.7	66.7
Comoros	2	2	2	1	2	4	5	46	66.7	66.7	66.7	33.3
Congo	2	2	2	2	2	4	5	7	66.7	66.7	66.7	66.7
Congo, Democratic Rep.	0	1	2	2	46	41	5	7	0.0	33.3	66.7	66.7
Cote d'Ivoire	2	2	2	2	2	4	5	7	66.7	66.7	66.7	66.7
Djibouti	1	1	2	2	40	41	5	7	33.3	33.3	66.7	66.7
Equatorial Guinea	2	2	2	2	2	4	5	7	66.7	66.7	66.7	66.7
Eritrea	2	2	2	2	2	4	5	7	66.7	66.7	66.7	66.7
Ethiopia	2	2	2	2	2	4	5	7	66.7	66.7	66.7	66.7
Gabon	2	2	2	2	2	4	5	7	66.7	66.7	66.7	66.7
Gambia	1	2	2	2	40	4	5	7	33.3	66.7	66.7	66.7
Ghana	2	2	2	2	2	4	5	7	66.7	66.7	66.7	66.7
Guinea	2	2	2	2	2	4	5	7	66.7	66.7	66.7	66.7
Guinea-Bissau	2	2	2	2	2	4	5	7	66.7	66.7	66.7	66.7
Kenya	1	2	2	2	40	4	5	7	33.3	66.7	66.7	66.7
Lesotho	2	2	2	2	2	4	5	7	66.7	66.7	66.7	66.7
Liberia	2	2	2	3	2	4	5	1	66.7	66.7	66.7	100.0
Madagascar	2	2	2	2	2	4	5	7	66.7	66.7	66.7	66.7
Malawi	2	2	2	2	2	4	5	7	66.7	66.7	66.7	66.7
Mali	2	2	2	2	2	4	5	7	66.7	66.7	66.7	66.7
Mauritania	1	1	2	2	40	41	5	7	33.3	33.3	66.7	66.7
Mauritius	2	1	2	2	2	41	5	7	66.7	33.3	66.7	66.7
Mozambique	2	3	3	3	2	1	1	1	66.7	100.0	100.0	100.0
Namibia	2	3	2	2	2	1	5	7	66.7	100.0	66.7	66.7
Niger	1	1	2	2	40	41	5	7	33.3	33.3	66.7	66.7
Nigeria	2	1	1	1	2	41	47	46	66.7	33.3	33.3	33.3
Rwanda	2	2	3	3	2	4	1	1	66.7	66.7	100.0	100.0
Sao Tome and Principe	2	2	2	2	2	4	5	7	66.7	66.7	66.7	66.7
Senegal	2	2	2	2	2	4	5	7	66.7	66.7	66.7	66.7
Seychelles	2	2	2	3	2	4	5	1	66.7	66.7	66.7	100.0
Sierra Leone	0	2	2	2	46	4	5	7	0.0	66.7	66.7	66.7
Somalia	0	0	0	0	46	48	48	48	0.0	0.0	0.0	0.0
South Africa	3	3	3	3	1	1	1	1	100.0	100.0	100.0	100.0
Sudan	1	1	2	2	40	41	5	7	33.3	33.3	66.7	66.7
Swaziland	2	2	2	2	2	4	5	7	66.7	66.7	66.7	66.7
Tanzania	2	2	2	2	2	4	5	7	66.7	66.7	66.7	66.7
Togo	2	2	2	2	2	4	5	7	66.7	66.7	66.7	66.7
Uganda	2	2	2	2	2	4	5	7	66.7	66.7	66.7	66.7
Zambia	2	2	2	2	2	4	5	7	66.7	66.7	66.7	66.7
Zimbabwe	2	2	2	2	2	4	5	7	66.7	66.7	66.7	66.7

Women's Social Rights

From the Cingranelli-Richards (CIRI) Human Rights Dataset (Version 2008.03.12)

	SCALED DATA:											
	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	1	1	1	1	4	7	7	7	33.3	33.3	33.3	33.3
Benin	1	1	1	1	4	7	7	7	33.3	33.3	33.3	33.3
Botswana	1	1	1	1	4	7	7	7	33.3	33.3	33.3	33.3
Burkina Faso	0	1	0	0	35	7	20	21	0.0	33.3	0.0	0.0
Burundi	0	1	0	0	35	7	20	21	0.0	33.3	0.0	0.0
Cameroon	0	0	0	0	35	38	20	21	0.0	0.0	0.0	0.0
Cape Verde	1	1	1	1	4	7	7	7	33.3	33.3	33.3	33.3
Central African Republic	1	1	0	0	4	7	20	21	33.3	33.3	0.0	0.0
Chad	1	1	0	0	4	7	20	21	33.3	33.3	0.0	0.0
Comoros	1	2	2	2	4	2	1	1	33.3	66.7	66.7	66.7
Congo	1	1	0	0	4	7	20	21	33.3	33.3	0.0	0.0
Congo, Democratic Rep.	0	0	0	0	35	38	20	21	0.0	0.0	0.0	0.0
Cote d'Ivoire	1	1	0	0	4	7	20	21	33.3	33.3	0.0	0.0
Djibouti	0	0	0	0	35	38	20	21	0.0	0.0	0.0	0.0
Equatorial Guinea	0	0	0	1	35	38	20	7	0.0	0.0	0.0	33.3
Eritrea	1	1	1	1	4	7	7	7	33.3	33.3	33.3	33.3
Ethiopia	1	1	0	0	4	7	20	21	33.3	33.3	0.0	0.0
Gabon	1	1	1	0	4	7	7	21	33.3	33.3	33.3	0.0
Gambia	1	1	0	0	4	7	20	21	33.3	33.3	0.0	0.0
Ghana	1	2	1	1	4	2	7	7	33.3	66.7	33.3	33.3
Guinea	1	1	0	0	4	7	20	21	33.3	33.3	0.0	0.0
Guinea-Bissau	1	1	1	1	4	7	7	7	33.3	33.3	33.3	33.3
Kenya	1	1	0	0	4	7	20	21	33.3	33.3	0.0	0.0
Lesotho	0	0	0	1	35	38	20	7	0.0	0.0	0.0	33.3
Liberia	1	1	1	1	4	7	7	7	33.3	33.3	33.3	33.3
Madagascar	2	2	2	2	2	2	1	1	66.7	66.7	66.7	66.7
Malawi	1	1	1	1	4	7	7	7	33.3	33.3	33.3	33.3
Mali	1	1	0	0	4	7	20	21	33.3	33.3	0.0	0.0
Mauritania	1	1	0	0	4	7	20	21	33.3	33.3	0.0	0.0
Mauritius	1	1	2	2	4	7	1	1	33.3	33.3	66.7	66.7
Mozambique	0	0	0	0	35	38	20	21	0.0	0.0	0.0	0.0
Namibia	2	2	1	1	2	2	7	7	66.7	66.7	33.3	33.3
Niger	0	0	0	0	35	38	20	21	0.0	0.0	0.0	0.0
Nigeria	0	0	0	0	35	38	20	21	0.0	0.0	0.0	0.0
Rwanda	1	1	2	2	4	7	1	1	33.3	33.3	66.7	66.7
Sao Tome and Principe	1	2	2	2	4	2	1	1	33.3	66.7	66.7	66.7
Senegal	1	1	0	0	4	7	20	21	33.3	33.3	0.0	0.0
Seychelles	3	3	2	2	1	1	1	1	100.0	100.0	66.7	66.7
Sierra Leone	0	1	0	0	35	7	20	21	0.0	33.3	0.0	0.0
Somalia	0	0	0	0	35	38	20	21	0.0	0.0	0.0	0.0
South Africa	1	1	1	1	4	7	7	7	33.3	33.3	33.3	33.3
Sudan	0	0	0	0	35	38	20	21	0.0	0.0	0.0	0.0
Swaziland	0	0	0	0	35	38	20	21	0.0	0.0	0.0	0.0
Tanzania	1	1	0	0	4	7	20	21	33.3	33.3	0.0	0.0
Togo	1	1	0	0	4	7	20	21	33.3	33.3	0.0	0.0
Uganda	1	1	0	0	4	7	20	21	33.3	33.3	0.0	0.0
Zambia	1	1	0	0	4	7	20	21	33.3	33.3	0.0	0.0
Zimbabwe	1	1	1	1	4	7	7	7	33.3	33.3	33.3	33.3

Women's Rights

Women's Political Rights, Women's Economic Rights, and Women's Social Rights variables from the Cingranelli-Richards (CIRI) Human Rights Dataset (Version 2008.03.12)

	SCALED DATA:											
	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	4	4	4	4	7	10	8	8	57.1	57.1	57.1	57.1
Benin	4	4	4	4	7	10	8	8	57.1	57.1	57.1	57.1
Botswana	4	4	4	4	7	10	8	8	57.1	57.1	57.1	57.1
Burkina Faso	2	3	3	3	41	37	22	24	28.6	42.9	42.9	42.9
Burundi	3	4	4	4	34	10	8	8	42.9	57.1	57.1	57.1
Cameroon	3	3	2	2	34	37	40	39	42.9	42.9	28.6	28.6
Cape Verde	4	4	4	4	7	10	8	8	57.1	57.1	57.1	57.1
Central African Republic	4	4	2	2	7	10	40	39	57.1	57.1	28.6	28.6
Chad	4	4	2	2	7	10	40	39	57.1	57.1	28.6	28.6
Comoros	4	5	5	4	7	6	4	8	57.1	71.4	71.4	57.1
Congo	4	4	3	3	7	10	22	24	57.1	57.1	42.9	42.9
Congo, Democratic Rep.	0	2	2	2	46	42	40	39	0.0	28.6	28.6	28.6
Cote d'Ivoire	5	5	3	3	5	6	22	24	71.4	71.4	42.9	42.9
Djibouti	2	2	3	4	41	42	22	8	28.6	28.6	42.9	57.1
Equatorial Guinea	3	3	3	4	34	37	22	8	42.9	42.9	42.9	57.1
Eritrea	4	4	4	4	7	10	8	8	57.1	57.1	57.1	57.1
Ethiopia	4	4	3	3	7	10	22	24	57.1	57.1	42.9	42.9
Gabon	4	4	4	3	7	10	8	24	57.1	57.1	57.1	42.9
Gambia	3	4	3	2	34	10	22	39	42.9	57.1	42.9	28.6
Ghana	4	6	4	4	7	3	8	8	57.1	85.7	57.1	57.1
Guinea	4	5	3	3	7	6	22	24	57.1	71.4	42.9	42.9
Guinea-Bissau	4	4	3	4	7	10	22	8	57.1	57.1	42.9	57.1
Kenya	3	4	3	2	34	10	22	39	42.9	57.1	42.9	28.6
Lesotho	2	2	2	4	41	42	40	8	28.6	28.6	28.6	57.1
Liberia	4	4	4	5	7	10	8	4	57.1	57.1	57.1	71.4
Madagascar	6	6	5	5	2	3	4	4	85.7	85.7	71.4	71.4
Malawi	4	4	4	4	7	10	8	8	57.1	57.1	57.1	57.1
Mali	4	4	3	3	7	10	22	24	57.1	57.1	42.9	42.9
Mauritania	4	4	4	3	7	10	8	24	57.1	57.1	57.1	42.9
Mauritius	4	3	6	6	7	37	2	1	57.1	42.9	85.7	85.7
Mozambique	4	4	4	4	7	10	8	8	57.1	57.1	57.1	57.1
Namibia	6	7	4	4	2	1	8	8	85.7	100.0	57.1	57.1
Niger	2	2	2	3	41	42	40	24	28.6	28.6	28.6	42.9
Nigeria	3	2	2	1	34	42	40	47	42.9	28.6	28.6	14.3
Rwanda	4	4	7	6	7	10	1	1	57.1	57.1	100.0	85.7
Sao Tome and Principe	4	5	5	5	7	6	4	4	57.1	71.4	71.4	71.4
Senegal	4	4	3	2	7	10	22	39	57.1	57.1	42.9	28.6
Seychelles	7	7	6	6	1	1	2	1	100.0	100.0	85.7	85.7
Sierra Leone	0	4	3	3	46	10	22	24	0.0	57.1	42.9	42.9
Somalia	0	0	0	0	46	48	48	48	0.0	0.0	0.0	0.0
South Africa	6	6	5	5	2	3	4	4	85.7	85.7	71.4	71.4
Sudan	1	2	3	2	45	42	22	39	14.3	28.6	42.9	28.6
Swaziland	3	3	3	3	34	37	22	24	42.9	42.9	42.9	42.9
Tanzania	4	4	3	3	7	10	22	24	57.1	57.1	42.9	42.9
Togo	5	4	2	3	5	10	40	24	71.4	57.1	28.6	42.9
Uganda	4	4	3	3	7	10	22	24	57.1	57.1	42.9	42.9
Zambia	4	4	3	3	7	10	22	24	57.1	57.1	42.9	42.9
Zimbabwe	4	4	4	4	7	10	8	8	57.1	57.1	57.1	57.1

IV - SUSTAINABLE ECONOMIC OPPORTUNITY

Sustainable economic opportunity is an essential political good. Well-governed nation-states enable their citizens to pursue personal entrepreneurial goals and potentially prosper. They do so by providing regulatory frameworks conducive to such prosperity and by creating stable and forward-looking monetary and fiscal policy environments that facilitate and encourage national and personal wealth creation. Arteries of commerce—a robust physical communications and transportation infrastructure—are also critical to the achievement of these national and personal objectives. Significant, too, is the extent to which African countries are safeguarding their environments while fostering economic growth and infrastructural development. Doing so assists in sustaining economic opportunity and human development over the long term.

To measure the extent to which nation-states are providing this essential political good and its components, the Index of African Governance examines twelve key sub-sub-categories (indicators) over four sub-categories:

Wealth Creation

1. *GDP per capita based on purchasing power parity (PPP)*, using new estimates from the International Comparison Program, as compiled by the World Bank's World Development Indicators (WDI) 2008.¹
2. *Economic growth*, measured in terms of annual percentage changes in GDP per capita, using 2008 WDI figures.²

Macroeconomic Stability and Financial Integrity

1. *Annual inflation rates*, using data from the International Monetary Fund's *World Economic Outlook* (April 2008).
2. *Government budget deficits and surpluses* as a percentage of GDP, using data derived from the African Development Bank's *Selected Statistics on African Countries 2008*.
3. *Reliability of financial institutions*, based on "Contract Intensive Money (CIM)," an indicator developed by Clague, Keefer, Knack, and Olsen to measure the extent to which money is held in bank deposits, etc. (suggesting higher reliability), rather than currency (suggesting lower reliability).³ Figures for each country are estimated by us, using data from the IMF's International Financial Statistics.⁴ (See the detailed definition and explanation in the note on this indicator.)
4. *The overall business environment*, using as an indicator the number of days necessary to start a business. Figures are drawn from the World Bank's *Doing Business* surveys.

1 Last accessed 8 August 2008.

2 Last accessed 8 August 2008.

3 Christopher Clague, Philip Keefer, Stephen Knack, and Mancur Olsen, "Contract-Intensive Money: Contract Enforcement, Property Rights, and Economic Performance," *Journal of Economic Growth*, IV (1999), 185–211.

4 Last accessed 7 August 2008.

The Arteries of Commerce

1. *The density of a nation's paved road network* per 1,000 people from the International Road Federation, *IRF World Road Statistics 2007 (Data 2000 to 2005)* (Geneva, 2007) and *IRF World Road Statistics 2005 (Data 1999 to 2003)* (Geneva, 2005), along with our own Index of African Governance research in each country.
2. *Electricity capacity*, measured in terms of total installed capacity per capita (in kilowatts). Data are drawn from the U.S. Energy Information Administration's *International Energy Annual 2005*, which was released June–October 2007 (the latest available).
3. *Telephone subscribers (fixed/land lines and mobile) per 100 inhabitants*, based on estimates from the International Telecommunication Union.
4. *Computer users per 100 inhabitants*, based on estimates from the International Telecommunication Union.
5. *Internet users per 100 inhabitants*, based on estimates from the International Telecommunication Union.

Environmental Sensitivity

1. As estimated by the 2008 Environmental Performance Index, developed by Daniel C. Esty, M.A. Levy, C.H. Kim, A. de Sherbinin, T. Srebotnjak, and V. Mara, and published by the Yale Center for Environmental Law and Policy.⁵ The EPI is a composite index that assesses performance on two broad goals: (1) reduction of environmental stresses on human health; and (2) promotion of ecosystem vitality and natural resource management. It is based on twenty-five indicators in six policy areas: Environmental Health, Air Quality, Water Resources, Biodiversity and Habitat, Productive Natural Resources, and Climate Change.

The 2008 EPI is the best available measure of environmental performance of which we are aware, but it is nevertheless missing scores for nine of our countries: Cape Verde, the Comoros, Equatorial Guinea, the Gambia, Lesotho, Liberia, São Tomé and Príncipe, the Seychelles, and Somalia. Given the lack of available estimates for these countries and the weight of this indicator in the calculation of the Sustainable Economic Opportunity category, we present the scores for this category in two ways. The Index is calculated with EPI scores and estimates included. We also report scores for this category in which EPI scores are not included. For details, see the descriptive notes on this indicator.

Readers should note that the Index of African Governance's Category of Sustainable Economic Opportunity is not meant to be constructed in the same manner, or with the same aims, as various worthy efforts to epitomize and encapsulate Sustainable Development.⁶ Readers interested in studying such issues in greater depth might refer to a number of projects, including the work of the United Nations Commission on Sustainable Development and the U.S. Interagency Working Group on Sustainable Development Indicators. Much of this work also includes topics relating to "Human Development," including social and economic rights. Human Development is addressed in the Index of African Governance under our category of "Human Development."

5 Daniel C. Esty, M.A. Levy, C.H. Kim, A. de Sherbinin, T. Srebotnjak, and V. Mara, *2008 Environmental Performance Index* (New Haven, 2008).

6 For a review of the literature, see Thomas M. Parris and Robert W. Kates, "Characterizing and Measuring Sustainable Development," *Annual Review of Environment and Resources*, XXVIII (2003), 559–586.

Sustainable Economic Opportunity Rankings

Listed by 2006 Score

1	Mauritius	71.4
2	<i>Seychelles</i>	70.0
3	South Africa	63.5
4	Gabon	61.6
5	Botswana	58.2
6	Namibia	57.4
7	Congo	48.7
8	Kenya	48.6
9	<i>Equatorial Guinea</i>	48.5
10	Ghana	47.3
11	<i>Cape Verde</i>	47.2
12	Swaziland	46.5
13	Cameroon	44.7
14	Tanzania	43.4
15	Zambia	43.0
16	Cote d'Ivoire	42.9
17	<i>Lesotho</i>	42.9
18	Senegal	42.3
19	Uganda	42.2
20	Sudan	42.2
21	Togo	42.0
22	<i>Sao Tome and Principe</i>	41.5
23	Malawi	40.7
24	Nigeria	40.7
25	Ethiopia	40.5
26	<i>Gambia</i>	40.5
27	Madagascar	39.4
28	Zimbabwe	38.8
29	Rwanda	37.7
30	<i>Comoros</i>	37.5
31	Benin	36.9
32	<i>Liberia</i>	36.9
33	Mauritania	36.8
34	Djibouti	36.8
35	Mozambique	36.7
36	Burundi	35.9
37	Eritrea	35.4
38	Central African Republic	34.9
39	Angola	32.9
40	Guinea	32.3
41	Mali	31.4
42	Burkina Faso	30.3
43	Niger	27.6
44	Sierra Leone	27.1
45	Congo, Democratic Republic	26.3
46	<i>Somalia*</i>	26.0
47	Chad	25.6
48	Guinea-Bissau	23.3

*There are insufficient data available for Somalia to calculate a meaningful score. Scores listed in italics are calculated without a real estimate for Environmental Sensitivity (Environmental Performance Index).

Sustainable Economic Opportunity Rankings

Listed by 2000 Score		Listed by 2002 Score		Listed by 2005 Score		
1	Mauritius	63.8	Mauritius	66.2	Mauritius	70.9
2	<i>Seychelles</i>	<i>61.7</i>	<i>Seychelles</i>	<i>62.1</i>	<i>Seychelles</i>	<i>67.7</i>
3	South Africa	58.0	South Africa	59.3	South Africa	62.8
4	Gabon	57.6	Gabon	58.2	Gabon	61.6
5	Botswana	56.8	Botswana	56.5	Botswana	57.3
6	Namibia	51.9	Namibia	54.0	Namibia	55.5
7	Congo	47.0	<i>Equatorial Guinea</i>	<i>51.0</i>	<i>Equatorial Guinea</i>	<i>52.8</i>
8	Kenya	44.7	Congo	45.1	<i>Cape Verde</i>	<i>48.8</i>
9	Ghana	43.8	Zimbabwe	44.8	Congo	48.2
10	<i>Equatorial Guinea</i>	<i>43.8</i>	Kenya	44.7	Kenya	47.7
11	<i>Cape Verde</i>	<i>43.4</i>	Ghana	44.7	Ghana	46.6
12	Swaziland	43.3	<i>Cape Verde</i>	<i>44.4</i>	Swaziland	45.9
13	Cameroon	42.6	Swaziland	44.2	Zimbabwe	44.3
14	<i>Liberia</i>	<i>42.0</i>	Tanzania	43.1	<i>Sao Tome and Principe</i>	<i>43.6</i>
15	Tanzania	41.8	Cameroon	42.6	Tanzania	43.6
16	Zimbabwe	41.6	Togo	41.5	Cameroon	43.5
17	Senegal	41.5	Uganda	41.2	Senegal	43.1
18	Uganda	40.6	Senegal	41.1	Cote d'Ivoire	42.5
19	Zambia	39.4	<i>Sao Tome and Principe</i>	<i>40.6</i>	Uganda	42.0
20	Cote d'Ivoire	39.3	Cote d'Ivoire	39.6	Togo	41.6
21	<i>Gambia</i>	<i>39.0</i>	Zambia	39.0	Sudan	40.6
22	Ethiopia	38.1	Rwanda	38.7	Zambia	40.5
23	Togo	37.9	<i>Lesotho</i>	<i>38.5</i>	Nigeria	40.4
24	Malawi	37.8	<i>Comoros</i>	<i>38.4</i>	Ethiopia	40.4
25	Nigeria	37.8	Sudan	36.9	<i>Lesotho</i>	<i>40.0</i>
26	<i>Lesotho</i>	<i>37.7</i>	Ethiopia	36.9	<i>Gambia</i>	<i>39.8</i>
27	<i>Comoros</i>	<i>37.5</i>	<i>Gambia</i>	<i>36.5</i>	Malawi	39.2
28	Sudan	36.7	Benin	36.4	<i>Comoros</i>	<i>39.2</i>
29	Rwanda	35.9	Malawi	36.3	Rwanda	38.0
30	Benin	35.8	Nigeria	36.0	Djibouti	36.5
31	<i>Sao Tome and Principe</i>	<i>34.9</i>	<i>Liberia</i>	<i>35.5</i>	Benin	36.4
32	Madagascar	34.3	Djibouti	35.2	<i>Liberia</i>	<i>36.0</i>
33	Djibouti	34.0	Burundi	35.1	Eritrea	35.5
34	Burundi	33.3	Mozambique	34.6	Mozambique	35.4
35	Central African Republic	32.4	Eritrea	34.4	Madagascar	35.3
36	Mozambique	32.0	Guinea	32.5	Burundi	33.8
37	Guinea	31.3	Central African Republic	32.1	Central African Republic	33.1
38	Eritrea	29.3	Sierra Leone	31.7	Guinea	32.6
39	Mauritania	27.8	Burkina Faso	29.1	Angola	32.5
40	Mali	27.7	Mauritania	28.6	Mauritania	30.9
41	Burkina Faso	27.1	Madagascar	28.6	Burkina Faso	29.7
42	<i>Somalia*</i>	<i>24.9</i>	Mali	27.7	Mali	28.6
43	Sierra Leone	24.4	Angola	27.5	Chad	27.2
44	Guinea-Bissau	24.3	Chad	26.6	Sierra Leone	26.7
45	Chad	23.1	<i>Somalia*</i>	<i>25.0</i>	Congo, Democratic Republic	26.3
46	Niger	23.0	Niger	24.6	<i>Somalia*</i>	<i>26.0</i>
47	Angola	22.4	Congo, Democratic Republic	23.7	Niger	24.9
48	Congo, Democratic Republic	16.9	Guinea-Bissau	18.4	Guinea-Bissau	22.4

*There are insufficient data available for Somalia to calculate a meaningful score. Scores listed in italics are calculated without a real estimate for Environmental Sensitivity (Environmental Performance Index).

Sustainable Economic Opportunity—Category Scores

Listed by Country “A” to “Z”

	2000	2002	2005	2006
Angola	22.4	27.5	32.5	32.9
Benin	35.8	36.4	36.4	36.9
Botswana	56.8	56.5	57.3	58.2
Burkina Faso	27.1	29.1	29.7	30.3
Burundi	33.3	35.1	33.8	35.9
Cameroon	42.6	42.6	43.5	44.7
<i>Cape Verde</i>	43.4	44.4	48.8	47.2
Central African Republic	32.4	32.1	33.1	34.9
Chad	23.1	26.6	27.2	25.6
<i>Comoros</i>	37.5	38.4	39.2	37.5
Congo	47.0	45.1	48.2	48.7
Congo, Democratic Rep.	16.9	23.7	26.3	26.3
Cote d’Ivoire	39.3	39.6	42.5	42.9
Djibouti	34.0	35.2	36.5	36.8
<i>Equatorial Guinea</i>	43.8	51.0	52.8	48.5
Eritrea	29.3	34.4	35.5	35.4
Ethiopia	38.1	36.9	40.4	40.5
Gabon	57.6	58.2	61.6	61.6
<i>Gambia</i>	39.0	36.5	39.8	40.5
Ghana	43.8	44.7	46.6	47.3
Guinea	31.3	32.5	32.6	32.3
Guinea-Bissau	24.3	18.4	22.4	23.3
Kenya	44.7	44.7	47.7	48.6
<i>Lesotho</i>	37.7	38.5	40.0	42.9
<i>Liberia</i>	42.0	35.5	36.0	36.9
Madagascar	34.3	28.6	35.3	39.4
Malawi	37.8	36.3	39.2	40.7
Mali	27.7	27.7	28.6	31.4
Mauritania	27.8	28.6	30.9	36.8
Mauritius	63.8	66.2	70.9	71.4
Mozambique	32.0	34.6	35.4	36.7
Namibia	51.9	54.0	55.5	57.4
Niger	23.0	24.6	24.9	27.6
Nigeria	37.8	36.0	40.4	40.7
Rwanda	35.9	38.7	38.0	37.7
<i>Sao Tome and Principe</i>	34.9	40.6	43.6	41.5
Senegal	41.5	41.1	43.1	42.3
<i>Seychelles</i>	61.7	62.1	67.7	70.0
Sierra Leone	24.4	31.7	26.7	27.1
<i>Somalia*</i>	24.9	25.0	26.0	26.0
South Africa	58.0	59.3	62.8	63.5
Sudan	36.7	36.9	40.6	42.2
Swaziland	43.3	44.2	45.9	46.5
Tanzania	41.8	43.1	43.6	43.4
Togo	37.9	41.5	41.6	42.0
Uganda	40.6	41.2	42.0	42.2
Zambia	39.4	39.0	40.5	43.0
Zimbabwe	41.6	44.8	44.3	38.8

*There are insufficient data available for Somalia to calculate a meaningful score. Scores listed in italics are calculated without a real estimate for Environmental Sensitivity (Environmental Performance Index).

**Sustainable Economic Opportunity—
Alternate Category Scores (without Environmental Performance Index)
Listed by Country “A” to “Z”**

	2000	2002	2005	2006
Angola	29.5	36.3	43.0	43.5
Benin	33.2	34.0	34.0	34.7
Botswana	50.5	50.1	51.1	52.3
Burkina Faso	31.6	34.3	35.1	35.9
Burundi	31.1	33.4	31.8	34.5
Cameroon	35.6	35.7	36.9	38.5
<i>Cape Verde</i>	41.8	43.2	49.0	46.9
Central African Republic	28.6	28.3	29.7	32.1
Chad	25.0	29.6	30.4	28.3
<i>Comoros</i>	33.9	35.1	36.2	34.0
Congo	36.6	34.0	38.1	38.8
Congo, Democratic Rep.	15.5	24.6	28.0	28.1
Cote d'Ivoire	30.1	30.5	34.3	34.8
Djibouti	35.5	37.1	38.8	39.2
<i>Equatorial Guinea</i>	42.3	52.0	54.3	48.6
Eritrea	21.6	28.4	30.0	29.8
Ethiopia	33.9	32.3	37.0	37.1
Gabon	44.1	45.0	49.5	49.5
<i>Gambia</i>	36.0	32.7	37.1	37.9
Ghana	31.3	32.4	35.0	35.9
Guinea	31.2	32.9	33.0	32.6
Guinea-Bissau	23.3	15.4	20.7	21.9
Kenya	34.0	34.0	38.1	39.2
<i>Lesotho</i>	34.2	35.3	37.3	41.1
<i>Liberia</i>	39.9	31.2	31.9	33.2
Madagascar	32.4	24.8	33.9	39.3
Malawi	32.6	30.6	34.5	36.5
Mali	32.4	32.4	33.7	37.3
Mauritania	32.7	33.7	36.9	44.7
Mauritius	51.7	55.0	61.2	61.8
Mozambique	30.0	33.4	34.5	36.2
Namibia	42.2	45.1	47.0	49.6
Niger	30.6	32.8	33.2	36.8
Nigeria	35.7	33.4	39.3	39.6
Rwanda	34.3	38.0	37.1	36.8
<i>Sao Tome and Principe</i>	30.6	38.1	42.1	39.4
Senegal	35.0	34.4	37.2	36.1
<i>Seychelles</i>	66.2	66.8	74.3	77.3
Sierra Leone	31.8	41.4	34.7	35.2
<i>Somalia*</i>	1.8	1.8	3.9	3.9
South Africa	51.8	53.5	58.2	59.1
Sudan	34.9	35.2	40.0	42.2
Swaziland	38.7	39.9	42.2	43.0
Tanzania	34.6	36.3	36.9	36.7
Togo	30.7	35.4	35.6	36.2
Uganda	34.9	35.7	36.7	37.1
Zambia	38.9	38.3	40.2	43.5
Zimbabwe	29.7	33.9	33.2	25.9

*There are insufficient data available for Somalia to calculate a meaningful score. Scores listed in italics are calculated without a real estimate for Environmental Sensitivity (Environmental Performance Index).

Sustainable Economic Opportunity—Rank

Listed by Country “A” to “Z”

	2000	2002	2005	2006
Angola	47	43	39	39
Benin	30	28	31	31
Botswana	5	5	5	5
Burkina Faso	41	39	41	42
Burundi	34	33	36	36
Cameroon	13	15	16	13
Cape Verde	11	12	8	11
Central African Republic	35	37	37	38
Chad	45	44	43	47
Comoros	27	24	28	30
Congo	7	8	9	7
Congo, Democratic Rep.	48	47	45	45
Cote d'Ivoire	20	20	18	16
Djibouti	33	32	30	34
Equatorial Guinea	10	7	7	9
Eritrea	38	35	33	37
Ethiopia	22	26	24	25
Gabon	4	4	4	4
Gambia	21	27	26	26
Ghana	9	11	11	10
Guinea	37	36	38	40
Guinea-Bissau	44	48	48	48
Kenya	8	10	10	8
Lesotho	26	23	25	17
Liberia	14	31	32	32
Madagascar	32	41	35	27
Malawi	24	29	27	23
Mali	40	42	42	41
Mauritania	39	40	40	33
Mauritius	1	1	1	1
Mozambique	36	34	34	35
Namibia	6	6	6	6
Niger	46	46	47	43
Nigeria	25	30	23	24
Rwanda	29	22	29	29
Sao Tome and Principe	31	19	14	22
Senegal	17	18	17	18
Seychelles	2	2	2	2
Sierra Leone	43	38	44	44
Somalia	42	45	46	46
South Africa	3	3	3	3
Sudan	28	25	21	20
Swaziland	12	13	12	12
Tanzania	15	14	15	14
Togo	23	16	20	21
Uganda	18	17	19	19
Zambia	19	21	22	15
Zimbabwe	16	9	13	28

Sustainable Economic Opportunity Summary of Indicators and Principal Sources

Sub-Category 1: Wealth Creation		
1	GDP per capita based on purchasing power parity (PPP) (constant 2005 international dollars)	International Comparison Program, as reported in the World Bank's World Development Indicators (WDI) 2008
2	Economic growth, measured in terms of annual percentage changes in GDP per capita	World Bank's World Development Indicators (WDI) 2008
Sub-Category 2: Macroeconomic Stability and Financial Integrity		
3	Annual inflation rates	International Monetary Fund's <i>World Economic Outlook</i> (April 2008)
4	Government budget deficits and surpluses as a percentage of GDP	African Development Bank's <i>Selected Statistics on African Countries 2008</i>
5	Reliability of financial institutions, based on "Contract Intensive Money (CIM)," an indicator developed in Christopher Clague, Philip Keefer, Stephen Knack, and Mancur Olsen, "Contract-Intensive Money: Contract Enforcement, Property Rights, and Economic Performance," <i>Journal of Economic Growth</i> , IV (1999), 185–211.	Calculated using data from the International Monetary Fund's International Financial Statistics 2008
6	The overall business environment, using as an indicator the number of days necessary to start a business	World Bank's <i>Doing Business</i> surveys
Sub-Category 3: The Arteries of Commerce		
7	The density of paved road network per 1,000 people	International Road Federation and our own Index of African Governance research on each country
8	Electricity capacity, measured as total installed capacity per capita	Energy Information Administration, <i>International Energy Annual 2005</i>
9	Telephone subscribers (fixed and mobile) per 100 inhabitants	International Telecommunication Union
10	Computer users per 100 inhabitants	
11	Internet users per 100 inhabitants	

Sub-Category 4: Environmental Sensitivity		
12	1) Reduction of environmental stresses, and 2) Promotion of the ecosystem, assessed using the composite 2008 Environmental Performance Index	Daniel C. Esty, M.A. Levy, C.H. Kim, A. de Sherbinin, T. Srebotnjak, and V. Mara, <i>2008 Environmental Performance Index</i> (New Haven, 2008)

Sustainable Economic Opportunity

	Indicator	ANG	BEN	BOT	BFO	BUR	CAM	CV	CAR	CHD	COM	CON	DRC	CdI	DJI	EQG	ERI	ETH	GAB	GAM	GHA
a) Wealth Creation	GDP per capita based on PPP (constant 2005 international dollars)	4297.6	1223.9	12121.4	1095.2	322.8	2024.4	2613.7	669.1	1432.5	1108.7	3379.7	272.2	1599.0	1905.6	26322.1	661.0	616.7	13769.8	1095.4	1206.6
	GDP per capita growth (annual %)	15.26	0.90	0.93	3.24	1.08	1.59	3.69	2.30	-2.62	-1.64	4.11	1.79	-0.91	3.02	-7.76	-4.47	6.19	-0.37	1.61	4.01
b) Macroeconomic Stability and Financial Integrity	Inflation	13.3	3.8	11.6	2.4	2.8	5.1	5.4	6.7	7.9	3.4	4.7	13.2	5.0	3.5	4.5	15.1	12.3	-1.4	2.1	10.9
	Deficits/Surplus as a % of GDP	10.9	-0.4	8.1	-5.2	-1.7	5.0	-4.6	7.1	2.0	-2.6	17.2	-0.7	-1.4	-2.4	26.2	-17.0	-5.0	9.2	-6.3	-7.0
	Reliability of Financial Institutions (Contract Intensive Money)	0.88	0.65	0.97	0.77	0.80	0.84	0.91	0.34	0.42	0.61	0.59	0.57	0.64	0.86	0.79	0.85	0.79	0.78	0.75	0.75
c) The Arteries of Commerce	Business Environment (Number of Days to Start a Business)	119	31	108	34	43	44	52	14	75	23	37	155	45	37	136	84	16	58	27	81
	Density of paved road network per 1,000 people	0.47	0.21	4.61	0.27	0.16	0.25	1.98	0.16	0.03	1.10	0.23	0.04	0.34	0.66	1.41	0.19	0.06	0.71	0.43	0.48
	Electricity Installed Capacity per Capita (kilowatts)	0.052	0.014	0.072	0.013	0.007	0.051	0.154	0.009	0.003	0.008	0.034	0.042	0.058	0.112	0.027	0.013	0.010	0.321	0.018	0.066
	Phone Subscribers per 100 Inhabitants	14.95	13.02	54.56	8.16	3.00	19.68	34.79	2.98	4.78	6.83	19.83	7.46	23.44	7.03	29.17	2.18	2.00	56.98	28.97	24.67
	Computer Usage per 100 Inhabitants	0.70	0.57	5.11	0.66	0.83	1.23	11.96	0.30	0.16	0.68	0.48	0.02	1.78	2.75	1.79	0.66	0.55	3.34	2.02	0.58
	Internet Usage per 100 Inhabitants	0.60	1.44	4.55	0.59	0.77	2.23	6.36	0.32	0.60	2.56	1.70	0.30	1.63	1.36	1.55	2.19	0.30	5.76	5.29	2.70
	Environmental Sensitivity	Environmental Performance Index	39.5	56.1	68.7	44.3	54.7	63.8	56.1	45.9	69.7	47.3	65.2	50.5	59.4	58.8	77.3	70.8			

*Note: See indicator descriptions for sources and additional information. Numbers in italics are estimates.

Summary of “Raw” Data—2006

	GUI GNB	KEN LES	LIB MAD	MAW MLI	MAU MAS	MZM NAM	NIR NIG	RWA STP	SEN SEY	SIE SOM	SAF SUD	SWA TAZ	TOG UGA	ZAM ZIM
	1113.6 462.8	1421.2 1395.2	323.5 850.9	678.2 1025.5	1831.7 10244.4	715.9 4670.7	609.4 1561.6	715.4 1475.2	1536.5 14741.3	610.1	8806.6 1871.7	4526.5 964.3	751.6 865.2	1220.4 505.8
	0.82 1.12	3.34 6.42	3.67 2.06	4.69 2.16	8.74 2.70	5.71 1.55	1.20 2.75	2.74 5.27	-0.26 3.18	4.45	3.88 9.41	1.46 3.31	1.31 2.08	4.22 -5.98
	34.7 2.0	14.5 6.1	7.2 10.8	13.9 1.9	6.2 5.6	13.2 5.1	0.1 8.3	8.8 23.1	2.1 -1.4	9.5	4.7 7.2	5.3 7.3	2.2 6.6	9.0 1016.7
	-2.1 -9.8	-3.3 13.4	4.2 37.7	-0.2 31.3	35.7 -5.3	-1.4 -0.2	41.6 8.4	-0.5 -12.6	-6.1 -7.1	-2.7	0.3 -4.2	0.5 -5.2	-2.8 -2.4	18.6 -7.3
	0.61 0.28	0.88 0.91	0.69 0.72	0.75 0.61	0.86 0.94	0.86 0.97	0.53 0.81	0.82 0.89	0.74 0.92	0.69	0.96 0.70	0.94 0.79	0.74 0.76	0.87 0.75
	41 233	54 73	99 21	37 42	82 46	113 95	24 43	16 144	58 38	26	35 39	61 30	53 28	35 96
	0.26 0.47	0.24 0.68	0.21 0.28	0.51 0.31	0.41 1.61	0.30 2.84	0.28 0.20	0.28 1.94	0.38 5.70	0.18 0.31	1.55 0.11	0.99 0.17	0.37 0.54	1.72 1.13
	0.030 0.013	0.034 0.038	0.055 0.012	0.023 0.024	0.059 0.527	0.114 0.131	0.008 0.042	0.003 0.059	0.025 1.146	0.021 0.010	0.863 0.022	0.130 0.023	0.003 0.011	0.155 0.160
	2.69 10.05	21.75 22.96	4.66 6.15	6.31 11.46	34.67 89.95	11.93 36.30	3.52 25.31	3.58 16.25	27.36 111.96	2.39 7.65	93.30 13.66	28.56 15.18	12.53 7.09	14.81 9.05
	0.56 0.22	1.44 0.08	0.55	0.19 0.40	2.56 17.52	1.43 19.49	0.07 0.91	0.30 3.83	2.14 20.91	0.91	8.36 11.45	4.07 0.93	3.63 1.67	1.12 6.61
	0.52 2.26	7.89 2.87	0.28 0.58	0.45 0.64	0.95 25.48	0.90 4.39	0.28 5.95	1.08 13.74	5.45 35.67	0.28 1.11	10.75 2.30	4.08 1.00	5.07 5.02	4.22 9.32
	51.3 49.7	69.0	54.6	59.9 44.3	44.2 78.1	53.9 70.6	39.1 56.2	54.9	62.8	40.0	69.0 55.5	61.3 63.9	62.3 61.6	55.1 69.3

Sustainable Economic Opportunity Summary of

	Indicator	ANG	BEN	BOT	BFO	BUR	CAM	CV	CAR	CHD	COM	CON	DRC	CdI	DJI	EQG	ERI	ETH	GAB	GAM	GHA
a) Wealth Creation	GDP per capita based on PPP (constant 2005 international dollars)	14.3	3.5	42.0	3.0	0.3	6.3	8.4	1.5	4.2	3.1	11.1	0.1	4.8	5.9	92.2	1.5	1.3	47.8	3.0	3.4
	GDP per capita growth (annual %)	82.9	45.1	45.2	51.3	45.6	46.9	52.4	48.8	35.8	38.4	53.6	47.4	40.3	50.7	22.3	31.0	59.0	41.8	47.0	53.3
b) Macroeconomic Stability and Financial Integrity	Inflation	98.7	99.6	98.9	99.8	99.7	99.5	99.5	99.3	99.2	99.7	99.5	98.7	99.5	99.7	99.6	98.5	98.8	99.9	99.8	98.9
	Deficits/Surplus as a % of GDP	63.1	49.6	59.8	43.8	48.0	56.1	44.5	58.6	52.5	46.9	70.7	49.2	48.4	47.2	81.5	29.7	44.1	61.1	42.5	41.7
	Reliability of Financial Institutions (Contract Intensive Money)	89.1	59.4	100.0	74.7	78.5	83.6	92.4	19.8	30.3	54.0	52.0	49.2	58.5	86.0	76.6	84.5	77.6	75.3	72.0	71.3
	Business Environment (Number of Days to Start a Business)	52.1	92.2	57.1	90.9	86.8	86.3	82.6	100.0	72.1	95.9	89.5	35.6	85.8	89.5	44.3	68.0	99.1	79.9	94.1	69.4
c) The Arteries of Commerce	Density of paved road network per 1,000 people	7.7	3.1	79.9	4.2	2.3	3.8	34.1	2.4	0.0	18.7	3.6	0.2	5.5	11.1	24.2	2.8	0.7	12.0	7.1	7.9
	Electricity Installed Capacity per Capita (kilowatts)	4.3	1.0	6.0	0.9	0.4	4.2	13.2	0.6	0.0	0.5	2.7	3.4	4.9	9.5	2.1	0.9	0.6	27.8	1.3	5.5
	Phone Subscribers per 100 Inhabitants	13.3	11.6	48.7	7.2	2.6	17.5	31.0	2.6	4.2	6.1	17.7	6.6	20.9	6.2	26.0	1.9	1.7	50.9	25.8	22.0
	Computer Usage per 100 Inhabitants	3.3	2.7	24.4	3.1	3.9	5.8	57.2	1.4	0.7	3.2	2.2	0.1	8.5	13.1	8.5	3.1	2.6	15.9	9.6	2.7
	Internet Usage per 100 Inhabitants	1.7	4.0	12.7	1.6	2.1	6.2	17.8	0.9	1.7	7.2	4.7	0.8	4.5	3.8	4.3	6.1	0.8	16.1	14.8	7.5
d) Environmental Sensitivity	Environmental Performance Index	1.1	43.6	75.9	13.5	40.0	63.4		43.5	17.5		78.5	21.2	67.0	29.4		52.3	50.7	97.9		81.3
Wealth Creation Sub-Score		48.6	24.3	43.6	27.1	22.9	26.6	30.4	25.2	20.0	20.7	32.3	23.8	22.6	28.3	57.2	16.2	30.2	44.8	25.0	28.4
Financial Integrity Sub-Score		75.7	75.2	78.9	77.3	78.3	81.4	79.8	69.4	63.5	74.1	77.9	58.2	73.1	80.6	75.5	70.2	79.9	79.0	77.1	70.3
Arteries of Commerce Sub-Score		6.1	4.5	34.3	3.4	2.3	7.5	30.7	1.6	1.3	7.1	6.2	2.2	8.9	8.8	13.0	3.0	1.3	24.5	11.7	9.1
Environmental Sensitivity Sub-Score		1.1	43.6	75.9	13.5	40.0	63.4	48.1	43.5	17.5	48.1	78.5	21.2	67.0	29.4	48.1	52.3	50.7	97.9	48.1	81.3
Sustainable Economic Opportunity 2006		32.9	36.9	58.2	30.3	35.9	44.7	47.2	34.9	25.6	37.5	48.7	26.3	42.9	36.8	48.5	35.4	40.5	61.6	40.5	47.3
Sustainable Economic Opportunity without EPI 2006		43.5	34.7	52.3	35.9	34.5	38.5	46.9	32.1	28.3	34.0	38.8	28.1	34.8	39.2	48.6	29.8	37.1	49.5	37.9	35.9

*Note: See indicator descriptions for sources and additional information. Scores in italics are based on estimates. Environmental sub-scores

Index Scores and Category Calculation—2006

	GUI	GNB	KEN	LES	LIB	MAD	MAW	MLI	MAU	MAS	MZM	NAM	NIR	NIG	RWA	STP	SEN	SEY	SIE	SOM	SAF	SUD	SWA	TAZ	TOG	UGA	ZAM	ZIM
	3.1	0.8	4.2	4.1	0.3	2.1	1.5	2.8	5.6	35.3	1.7	15.6	1.3	4.7	1.7	4.4	4.6	51.2	1.3		30.3	5.8	15.1	2.5	1.8	2.2	3.4	0.9
	44.9	45.7	51.5	59.6	52.4	48.2	55.1	48.4	65.8	49.8	57.8	46.8	45.9	50.0	49.9	56.6	42.1	51.1	54.4		53.0	67.5	46.6	51.4	46.2	48.2	53.8	27.0
	96.6	99.8	98.6	99.4	99.3	98.9	98.6	99.8	99.4	99.5	98.7	99.5	100.0	99.2	99.1	97.7	99.8	99.9	99.1		99.5	99.3	99.5	99.3	99.8	99.4	99.1	0.0
	47.5	38.3	46.1	66.1	55.1	95.3	49.8	87.6	92.9	43.7	48.4	49.8	100.0	60.1	49.5	34.9	42.7	41.5	46.8		50.4	45.0	50.7	43.8	46.7	47.2	72.4	41.3
	53.7	12.0	88.8	92.6	64.5	68.3	72.5	54.6	86.0	95.8	86.2	99.6	44.3	79.9	80.5	89.4	70.8	94.0	63.9		98.3	65.6	96.5	76.8	70.6	73.3	87.5	71.8
	87.7	0.0	81.7	73.1	61.2	96.8	89.5	87.2	68.9	85.4	54.8	63.0	95.4	86.8	99.1	40.6	79.9	89.0	94.5		90.4	88.6	78.5	92.7	82.2	93.6	90.4	62.6
	4.1	7.7	3.8	11.3	3.1	4.5	8.5	4.9	6.7	27.6	4.8	49.1	4.4	3.0	4.5	33.4	6.1	98.8	2.7	4.9	26.6	1.6	16.9	2.6	6.0	9.0	29.5	19.3
	2.4	0.9	2.7	3.1	4.5	0.8	1.8	1.9	4.9	45.8	9.7	11.2	0.4	3.4	0.0	4.9	2.0	100.0	1.6	0.6	75.3	1.6	11.1	1.8	0.0	0.7	13.3	13.7
	2.4	8.9	19.4	20.5	4.1	5.5	5.6	10.2	30.9	80.3	10.6	32.4	3.1	22.6	3.2	14.5	24.4	100.0	2.1	6.8	83.3	12.2	25.5	13.5	11.2	6.3	13.2	8.0
	2.6	1.0	6.8	0.3		2.6	0.9	1.9	12.2	83.8	6.8	93.2	0.3	4.3	1.4	18.3	10.2	100.0		4.3	40.0	54.7	19.4	4.4	17.3	7.9	5.3	31.6
	1.4	6.3	22.1	8.0	0.8	1.6	1.2	1.8	2.6	71.4	2.5	12.3	0.8	16.7	3.0	38.5	15.3	100.0	0.8	3.1	30.1	6.4	11.4	2.8	14.2	14.1	11.8	26.1
	31.4	27.3	76.8		39.8		53.4	13.5	13.2	100.0	38.1	80.9	0.0	43.8	40.5		60.9		2.5		76.7	42.2	57.1	63.6	59.6	57.7	41.2	77.4
	24.0	23.2	27.8	31.8	26.3	25.2	28.3	25.6	35.7	42.6	29.7	31.2	23.6	27.3	25.8	30.5	23.3	51.2	27.9		41.6	36.6	30.9	27.0	24.0	25.2	28.6	14.0
	71.4	37.5	78.8	82.8	70.0	89.9	77.6	82.3	86.8	81.1	72.0	78.0	84.9	81.5	82.1	65.7	73.3	81.1	76.1		84.7	74.6	81.3	78.1	74.8	78.4	87.4	43.9
	2.6	5.0	11.0	8.7	3.1	3.0	3.6	4.1	11.5	61.8	6.9	39.6	1.8	10.0	2.4	21.9	11.6	99.8	1.8	3.9	51.1	15.3	16.9	5.0	9.7	7.6	14.6	19.8
	31.4	27.3	76.8	48.1	48.1	39.8	53.4	13.5	13.2	100.0	38.1	80.9	0.0	43.8	40.5	48.1	60.9	48.1	2.5	48.1	76.7	42.2	57.1	63.6	59.6	57.7	41.2	77.4
	32.3	23.3	48.6	42.9	36.9	39.4	40.7	31.4	36.8	71.4	36.7	57.4	27.6	40.7	37.7	41.5	42.3	70.0	27.1	26.0	63.5	42.2	46.5	43.4	42.0	42.2	43.0	38.8
	32.6	21.9	39.2	41.1	33.2	39.3	36.5	37.3	44.7	61.8	36.2	49.6	36.8	39.6	36.8	39.4	36.1	77.3	35.2	3.9	59.1	42.2	43.0	36.7	36.2	37.1	43.5	25.9

shown in bold are substitutions for missing values and used only to calculate the category score.

Category: Sustainable Economic Opportunity

Sub-Category: Wealth Creation

INDICATOR: GDP PER CAPITA BASED ON PPP

Gross Domestic Product (GDP) per capita based on purchasing power parity (PPP) (constant 2005 international dollars) is included in the Index of African Governance as a measure of Wealth Creation. Our figures are drawn from newly available data from the World Bank's World Development Indicators (WDI).¹ Previously, the Index used GDP per capita expressed in 2000 U.S. dollars, also from the WDI. The PPP figures allow for better comparison of economic output and welfare across countries, controlling for differences in price levels. These newly available data reflect the work of the International Comparison Program, coordinated by the World Bank from 2003 to 2007.²

A country's GDP per capita in any given year is obviously influenced by a number of factors, over which a government in power may have little control, such as resource endowments, income in previous years, and natural disasters.³ In interpreting trends over time and comparisons across countries, these factors should be considered carefully.

In 2006, the poorest countries in terms of GDP per capita based on PPP were the Democratic Republic of the Congo (\$272.2), Burundi (\$322.8), and Liberia (\$323.5). Countries with the highest GDP per capita based on PPP were Equatorial Guinea (\$26,322.1), the Seychelles (\$14,741.3), and Gabon (\$13,769.8)—in the first case reflecting clearly the effect of national resource endowments on income. The regional average was \$3,047.5

Technical Notes

The WDI notes on this variable are as follows:

GDP per capita based on purchasing power parity (PPP). PPP GDP is gross domestic product converted to international dollars using purchasing power parity rates. An international dollar has the same purchasing power over GDP as the U.S. dollar has in the United States. GDP at purchaser's prices 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 2005 international dollars.⁴

The WDI does not include figures for São Tomé and Príncipe for 2000, for Somalia, and for Zimbabwe. The estimate for São Tomé and Príncipe in 2001 is given as an estimate for 2000.

For Zimbabwe, figures are rough estimates and should be used with caution. Further research should be done into this important topic. The 2005 figure given is from the *2005 International Comparison Program: Preliminary Results* document, which reports \$538 GDP per capita based on PPP \$ for 2005. Rough estimates for other years for Zimbabwe are calculated using growth rates per capita from the WDI, which are described in the next indicator in this category.⁵ The ICP report notes for Zimbabwe that "the very high price level index computed ... indicates a severe misalignment of the official exchange rate with the rate at which transactions actually occur" (page 1). Note also that the 2005 figures given in this preliminary document do not match exactly those reported for the same year by the WDI 2008. Several other sources provided PPP estimates for Zimbabwe, which are useful for comparison. However, note that the values reported by these sources differ from those estimated by the WDI 2008—widely, for some countries. The CIA *World Factbook 2007* (15 May 2007 update) estimated Zimbabwe's GDP per capita (PPP) at about \$2,000 in 2006, while the updated 2008 *Factbook* (drawing on new

1 Last accessed 8 August 2008. The Index is based on all WDI figures current as of this date.

2 See World Bank, *2006 International Comparison Program: Preliminary Results* (Washington, D.C., 2007).

3 In addition, measures of wealth such as GDP per capita are also highly correlated with a variety of other indicators, particularly in the area of Human Development. These relationships are discussed further in the introduction to the Human Development category.

4 Last accessed 8 August 2008.

5 As described there, the latest WDI does not include an estimate for growth rates per capita for Zimbabwe in 2006, so the 2005 figure is used as an estimate.

PPP rates) estimated \$200 to \$500 in 2007.⁶ The Economist Intelligence Unit (EIU) estimates GDP per head (\$ in PPP) at \$439.50 in 2000, \$394.30 in 2002, \$174 in 2005, and \$170 in 2006.⁷ The EIU estimates place Zimbabwe about \$100 below the Democratic Republic of the Congo, the other country with the lowest GDP per capita in 2005 and 2006, according to estimates from the WDI 2008.

6 U.S. Central Intelligence Agency, *The World Factbook 2007* (15 May 2007 update), available at <http://www.umsl.edu/services/govdocs/wofact2007/geos/zi.html> (last accessed 19 August 2008). The 2008 *Factbook* reports \$200 GDP per capita (PPP) in its 7 August 2008 update and \$500 in an earlier 2008 update.

7 From EIU Data Services (last accessed 19 August 2008).

GDP per capita, based on Purchasing Power Parity (Constant 2005 International Dollars)

World Development Indicators (WDI) 2008

	RAW DATA:				SCALED DATA:				SCALED DATA:			
					Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	2633.5	2939.5	3728.7	4297.6	10	10	9	9	8.4	9.5	12.3	14.3
Benin	1178.2	1212.5	1213.0	1223.9	21	22	23	23	3.3	3.4	3.4	3.5
Botswana	9791.7	10600.0	12010.2	12121.4	4	4	4	4	33.7	36.6	41.6	42.0
Burkina Faso	920.2	964.1	1060.8	1095.2	28	29	29	29	2.4	2.5	2.9	3.0
Burundi	338.0	340.8	319.4	322.8	46	46	45	46	0.3	0.3	0.3	0.3
Cameroon	1868.2	1937.2	1992.6	2024.4	12	12	12	12	5.7	6.0	6.2	6.3
Cape Verde	2213.3	2292.4	2520.8	2613.7	11	11	11	11	7.0	7.2	8.1	8.4
Central African Republic	744.2	716.9	654.1	669.1	35	36	38	38	1.8	1.7	1.4	1.5
Chad	879.5	989.1	1471.1	1432.5	29	28	19	20	2.2	2.6	4.3	4.2
Comoros	1092.5	1127.1	1127.3	1108.7	23	23	26	27	3.0	3.1	3.1	3.1
Congo	2963.4	3066.4	3246.3	3379.7	9	9	10	10	9.6	10.0	10.6	11.1
Congo, Democratic Rep.	254.8	244.3	267.5	272.2	47	47	47	47	0.0	0.0	0.1	0.1
Cote d'Ivoire	1760.3	1671.8	1613.6	1599.0	14	14	16	16	5.4	5.1	4.8	4.8
Djibouti	1761.0	1764.2	1849.8	1905.6	13	13	13	13	5.4	5.4	5.7	5.9
Equatorial Guinea	10264.5	19164.0	28536.2	26322.1	3	1	1	1	35.4	66.9	100.0	92.2
Eritrea	712.0	721.2	692.0	661.0	37	35	36	39	1.7	1.7	1.6	1.5
Ethiopia	505.8	521.4	580.7	616.7	43	43	42	40	0.9	1.0	1.2	1.3
Gabon	13845.2	13582.3	13821.3	13769.8	2	3	3	3	48.1	47.1	48.0	47.8
Gambia	1042.5	999.8	1078.1	1095.4	24	27	28	28	2.8	2.7	2.9	3.0
Ghana	1014.8	1053.4	1160.0	1206.6	27	26	25	25	2.7	2.9	3.2	3.4
Guinea	1041.9	1087.5	1104.6	1113.6	25	24	27	26	2.8	3.0	3.0	3.1
Guinea-Bissau	538.4	471.8	457.7	462.8	41	44	44	44	1.0	0.8	0.8	0.8
Kenya	1312.9	1300.8	1375.3	1421.2	18	18	21	21	3.8	3.7	4.0	4.2
Lesotho	1196.2	1222.3	1311.1	1395.2	20	21	22	22	3.4	3.5	3.8	4.1
Liberia	441.6	445.6	312.1	323.5	44	45	46	45	0.7	0.7	0.2	0.3
Madagascar	858.0	750.0	833.7	850.9	30	34	33	33	2.2	1.8	2.1	2.1
Malawi	703.3	605.6	647.8	678.2	38	39	39	37	1.6	1.3	1.4	1.5
Mali	856.8	943.5	1003.8	1025.5	31	30	30	30	2.2	2.5	2.7	2.8
Mauritania	1596.6	1566.3	1684.4	1831.7	15	15	15	15	4.8	4.7	5.1	5.6
Mauritius	8530.3	9070.2	9975.2	10244.4	5	5	5	5	29.3	31.2	34.4	35.3
Mozambique	506.3	586.2	677.3	715.9	42	41	37	35	0.9	1.2	1.5	1.7
Namibia	3916.3	4139.5	4599.4	4670.7	8	8	7	7	13.0	13.8	15.4	15.6
Niger	585.1	601.3	602.2	609.4	40	40	40	42	1.2	1.3	1.3	1.3
Nigeria	1307.3	1300.3	1519.7	1561.6	19	19	18	17	3.8	3.7	4.5	4.7
Rwanda	605.8	659.9	696.4	715.4	39	38	35	36	1.3	1.5	1.6	1.7
Sao Tome and Principe	1139.0	1249.1	1401.3	1475.2	22	20	20	19	3.2	3.6	4.1	4.4
Senegal	1397.5	1395.8	1540.5	1536.5	16	17	17	18	4.1	4.1	4.6	4.6
Seychelles	15949.1	15291.7	14286.8	14741.3	1	2	2	2	55.5	53.2	49.6	51.2
Sierra Leone	380.6	526.4	584.1	610.1	45	42	41	41	0.5	1.0	1.2	1.3
Somalia												
South Africa	7466.4	7733.1	8477.6	8806.6	6	6	6	6	25.5	26.5	29.1	30.3
Sudan	1383.4	1486.0	1710.8	1871.7	17	16	14	14	4.0	4.4	5.2	5.8
Swaziland	4293.8	4311.4	4461.3	4526.5	7	7	8	8	14.3	14.4	14.9	15.1
Tanzania	773.1	837.2	933.4	964.3	32	31	31	31	1.9	2.1	2.4	2.5
Togo	769.5	752.5	741.9	751.6	33	33	34	34	1.9	1.8	1.8	1.8
Uganda	755.5	792.4	847.5	865.2	34	32	32	32	1.8	1.9	2.1	2.2
Zambia	1018.4	1061.0	1170.9	1220.4	26	25	24	24	2.7	2.9	3.3	3.4
Zimbabwe	734.5	672.4	538.0	505.8	36	37	43	43	1.7	1.5	1.0	0.9

Category: Sustainable Economic Opportunity

Sub-Category: Wealth Creation

INDICATOR: ECONOMIC GROWTH

Economic growth is a second key component of Wealth Creation. The Index measures economic growth using data from the World Bank's World Development Indicators (WDI) 2008 on GDP per capita growth (expressed as an annual percentage), which are based on World Bank and OECD national accounts data files.¹

A number of factors may contribute to a country's growth rate. Government policy plays a key role, but other contributing factors may be outside of direct government influence, such as the international prices for a country's key exports, the discovery of natural resources, or economic conditions in major trading partners. A large literature addresses these issues.

In 2006, the highest GDP per capita growth was in Angola (15.26 percent), followed by the Sudan (9.41 percent) and Mauritania (8.74 percent). On average, countries in the region grew at 2.6 percent (according to the available data).² Although most countries experienced modest positive growth rates, negative growth rates were also seen in a handful of countries: the worst rates were in Equatorial Guinea (-7.76 percent), followed by Zimbabwe (roughly estimated at almost -6 percent, as described below), Eritrea (-4.47 percent), Chad (-2.62 percent), the Comoros (-1.64 percent), Côte d'Ivoire (-0.91 percent), Gabon (-0.37 percent), and Senegal (-0.26 percent).

Technical Notes

The WDI notes on this indicator are as follows:

Annual percentage growth rate of GDP at market prices based on constant local currency. Aggregates are based on constant 2000 U.S. dollars. 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.

This source does not include figures for Somalia, for São Tomé and Príncipe prior to 2002, or for Zimbabwe in 2006. Given the rapidly changing economic situation in Zimbabwe and the poor quality of available data, estimates are problematic; in order to calculate the 2008 Index, we use Zimbabwe's 2005 negative growth rate as a rough estimate for 2006.³

¹ Last accessed 24 July 2008. The Index is based on all WDI figures current as of this date.

² This does not include the estimate for Zimbabwe (see below).

³ Other related estimates are: African Development Bank and OECD, *African Economic Outlook 2007/2008* (p. 645) estimates on real GDP growth rates (percent): -7.3 in 2000, -2.7 in 2001, -4.4 in 2002, -10.4 in 2003, -3.8 in 2004, -5.3 in 2005, and -4.8 in 2006; Economist Intelligence Unit, *Zimbabwe Country Profile*, (9 May 2008), real GDP growth of -5.5 percent in 2006; U.S. Central Intelligence Agency, *The World Factbook 2008* (last accessed 6 July 2008), 2007 estimate of -6.1 percent real GDP growth.

GDP per capita Growth (annual %)

World Development Indicators (WDI) 2008, based on World Bank and OECD national accounts data files

	SCALED DATA:											
	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	0.41	11.23	17.17	15.26	25	3	1	1	43.8	72.3	87.9	82.9
Benin	2.61	1.17	-0.33	0.90	12	26	42	38	49.6	45.8	41.9	45.1
Botswana	6.51	4.34	2.77	0.93	3	10	26	37	59.9	54.2	50.0	45.2
Burkina Faso	-1.20	1.38	3.81	3.24	32	23	13	18	39.6	46.4	52.8	51.3
Burundi	-2.78	1.34	-2.86	1.08	38	25	45	36	35.4	46.3	35.2	45.6
Cameroon	1.77	1.59	-0.17	1.59	16	22	41	30	47.4	46.9	42.3	46.9
Cape Verde	4.14	2.16	9.32	3.69	7	16	2	14	53.6	48.4	67.3	52.4
Central African Republic	0.32	-2.18	0.54	2.30	27	40	38	24	43.6	37.0	44.2	48.8
Chad	-4.34	4.49	4.37	-2.62	41	9	9	44	31.3	54.6	54.2	35.8
Comoros	-1.21	1.97	2.05	-1.64	33	18	30	43	39.5	47.9	48.1	38.4
Congo	4.82	2.25	5.30	4.11	5	15	6	11	55.4	48.7	56.7	53.6
Congo, Democratic Rep.	-9.05	0.57	3.16	1.79	45	30	22	28	18.9	44.2	51.1	47.4
Cote d'Ivoire	-5.79	-3.14	-0.50	-0.91	43	41	43	42	27.5	34.5	41.4	40.3
Djibouti	-2.38	0.54	1.39	3.02	37	31	33	20	36.5	44.1	46.4	50.7
Equatorial Guinea	10.82	17.76	4.40	-7.76	2	2	8	47	71.2	89.5	54.3	22.3
Eritrea	-16.23	-3.52	-3.34	-4.47	46	42	46	45	0.0	33.5	33.9	31.0
Ethiopia	2.73	-1.49	7.33	6.19	10	34	3	5	49.9	38.8	62.0	59.0
Gabon	-3.86	-2.08	1.38	-0.37	39	39	35	41	32.6	37.3	46.4	41.8
Gambia	1.98	-6.31	1.99	1.61	15	44	31	29	47.9	26.1	48.0	47.0
Ghana	1.34	2.14	3.65	4.01	20	17	15	12	46.2	48.4	52.4	53.3
Guinea	-0.06	2.29	1.38	0.82	28	14	34	39	42.6	48.8	46.4	44.9
Guinea-Bissau	4.46	-9.90	0.39	1.12	6	46	39	35	54.5	16.7	43.8	45.7
Kenya	-1.96	-2.02	2.97	3.34	36	38	23	16	37.6	37.4	50.6	51.5
Lesotho	0.96	1.73	2.17	6.42	22	20	29	4	45.3	47.3	48.4	59.6
Liberia	18.95	1.59	2.45	3.67	1	21	28	15	92.6	46.9	49.2	52.4
Madagascar	1.73	-15.13	1.74	2.06	17	47	32	27	47.3	2.9	47.3	48.2
Malawi	-1.36	-6.88	0.15	4.69	34	45	40	8	39.2	24.6	43.1	55.1
Mali	0.33	1.12	2.92	2.16	26	27	25	25	43.6	45.7	50.4	48.4
Mauritania	-1.06	-1.82	2.57	8.74	31	36	27	3	39.9	37.9	49.5	65.8
Mauritius	3.01	1.83	3.74	2.70	9	19	14	23	50.7	47.6	52.6	49.8
Mozambique	-1.41	6.12	5.99	5.71	35	6	5	6	39.0	58.9	58.5	57.8
Namibia	1.36	5.07	3.37	1.55	19	7	19	31	46.3	56.1	51.6	46.8
Niger	-4.89	-0.57	3.51	1.20	42	32	18	34	29.9	41.2	52.0	45.9
Nigeria	2.67	-1.00	4.66	2.75	11	33	7	21	49.8	40.1	55.0	50.0
Rwanda	-0.72	6.50	3.90	2.74	30	5	11	22	40.8	59.8	53.0	49.9
Sao Tome and Principe		9.67	3.65	5.27		4	16	7	42.7	68.2	52.3	56.6
Senegal	0.52	-1.95	2.93	-0.26	24	37	24	40	44.1	37.6	50.4	42.1
Seychelles	3.33	-1.81	0.72	3.18	8	35	37	19	51.5	38.0	44.6	51.1
Sierra Leone	0.64	21.75	3.51	4.45	23	1	17	9	44.4	100.0	52.0	54.4
Somalia												
South Africa	1.61	2.68	3.87	3.88	18	13	12	13	47.0	49.8	52.9	53.0
Sudan	5.97	3.31	6.38	9.41	4	11	4	2	58.5	51.4	59.5	67.5
Swaziland	-0.45	0.99	1.33	1.46	29	29	36	32	41.6	45.3	46.2	46.6
Tanzania	2.56	4.52	4.11	3.31	13	8	10	17	49.5	54.6	53.6	51.4
Togo	-4.13	1.11	-1.49	1.31	40	28	44	33	31.9	45.6	38.8	46.2
Uganda	2.49	3.10	3.30	2.08	14	12	21	26	49.3	50.9	51.4	48.2
Zambia	1.33	1.36	3.31	4.22	21	24	20	10	46.2	46.3	51.5	53.8
Zimbabwe	-8.87	-5.08	-5.98	-5.98	44	43	47	46	19.4	29.3	27.0	27.0

Category: Sustainable Economic Opportunity
Sub-Category: Macroeconomic Stability and Financial Integrity

INDICATOR: INFLATION

Inflation, measured as the annual percentage change in average consumer prices, is included in the Index as an indicator of Macroeconomic Stability and Financial Integrity. Data are drawn from the International Monetary Fund's (IMF) World Economic Outlook Database (April 2008).¹ The source of these data varies by country, including National Statistical Offices, Central Banks, and Ministries of Finance.

Both positive and negative changes in consumer prices suggest some macroeconomic instability. Thus, in scaling and ranking the inflation figures, the Index calculates a country's score for this indicator using the absolute value of the annual percent change in consumer prices.

In 2006, the worst inflation by far was in Zimbabwe (1,017 percent), followed by Guinea (35 percent) and São Tomé and Príncipe (23 percent). Negative inflation rates of 1.4 percent were experienced in Gabon and the Seychelles. The lowest changes in consumer prices were measured in Niger (0.1 percent). Excluding Zimbabwe, average inflation in the region was under 8 percent (including Zimbabwe, it was 29 percent).

There are several other standard data sources on inflation. The World Bank's World Development Indicators (WDI) and the OECD and African Development Bank's *African Economic Outlook* are both based on IMF data. The African Development Bank's *Selected Statistics on African Countries* (2007, v. XXVI) includes data on Consumer Price Inflation, which differ from the IMF data.

Technical Notes

Data are unavailable for Somalia.

¹ Last accessed 24 July 2008. Note that data for inflation are averages for the year, not end-of-period.

Inflation

IMF World Economic Outlook (April 2008 version)

	SCALED DATA:											
	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	325.0	108.9	23.0	13.3	46	46	45	41	68.0	89.3	97.7	98.7
Benin	4.2	2.4	5.4	3.8	17	12	19	13	99.6	99.8	99.5	99.6
Botswana	8.5	8.0	8.6	11.6	33	29	31	37	99.2	99.2	99.2	98.9
Burkina Faso	-0.3	2.3	6.4	2.4	1	9	22	9	100.0	99.8	99.4	99.8
Burundi	24.3	-1.3	13.4	2.8	41	4	37	10	97.6	99.9	98.7	99.7
Cameroon	0.8	6.3	2.0	5.1	7	25	5	19	99.9	99.4	99.8	99.5
Cape Verde	-2.4	1.9	0.4	5.4	12	5	1	21	99.8	99.8	100.0	99.5
Central African Republic	3.2	2.3	2.9	6.7	14	9	8	26	99.7	99.8	99.7	99.3
Chad	3.8	5.2	7.9	7.9	15	23	28	30	99.6	99.5	99.2	99.2
Comoros	5.9	3.6	3.0	3.4	23	18	9	11	99.4	99.7	99.7	99.7
Congo	0.4	3.1	2.5	4.7	3	16	7	15	100.0	99.7	99.8	99.5
Congo, Democratic Rep.	550.0	25.3	21.4	13.2	47	45	44	39	45.9	97.5	97.9	98.7
Cote d'Ivoire	-0.4	5.1	4.2	5.0	2	22	14	17	100.0	99.5	99.6	99.5
Djibouti	1.6	0.6	3.1	3.5	10	3	10	12	99.8	99.9	99.7	99.7
Equatorial Guinea	4.8	7.6	5.7	4.5	19	28	20	14	99.5	99.3	99.4	99.6
Eritrea	19.9	16.9	12.5	15.1	40	42	36	44	98.0	98.3	98.8	98.5
Ethiopia	6.2	-7.2	6.8	12.3	25	27	25	38	99.4	99.3	99.3	98.8
Gabon	0.5	0.2	1.2	-1.4	4	1	3	3	100.0	100.0	99.9	99.9
Gambia	0.9	8.6	5.0	2.1	8	31	18	6	99.9	99.2	99.5	99.8
Ghana	25.2	14.8	15.1	10.9	42	39	38	36	97.5	98.5	98.5	98.9
Guinea	6.8	3.0	31.4	34.7	28	14	46	46	99.3	99.7	96.9	96.6
Guinea-Bissau	8.6	3.3	3.4	2.0	34	17	12	5	99.2	99.7	99.7	99.8
Kenya	10.0	2.0	10.3	14.5	36	6	33	43	99.0	99.8	99.0	98.6
Lesotho	6.1	12.5	3.4	6.1	24	36	13	23	99.4	98.8	99.7	99.4
Liberia	5.3	14.2	6.9	7.2	20	38	26	28	99.5	98.6	99.3	99.3
Madagascar	10.7	16.2	18.4	10.8	37	40	43	35	99.0	98.4	98.2	98.9
Malawi	29.6	17.3	15.5	13.9	44	43	39	42	97.1	98.3	98.5	98.6
Mali	-0.7	5.1	6.4	1.9	5	21	21	4	99.9	99.5	99.4	99.8
Mauritania	6.8	5.4	12.1	6.2	29	24	35	24	99.3	99.5	98.8	99.4
Mauritius	4.2	6.5	4.9	5.6	18	26	17	22	99.6	99.4	99.5	99.5
Mozambique	12.7	16.8	6.4	13.2	39	41	23	40	98.8	98.4	99.4	98.7
Namibia	9.3	11.3	2.3	5.1	35	34	6	18	99.1	98.9	99.8	99.5
Niger	2.9	2.7	7.8	0.1	13	13	27	1	99.7	99.7	99.2	100.0
Nigeria	6.9	13.7	17.8	8.3	30	37	41	31	99.3	98.7	98.3	99.2
Rwanda	3.9	2.0	9.2	8.8	16	7	32	32	99.6	99.8	99.1	99.1
Sao Tome and Principe	11.0	10.1	17.2	23.1	38	33	40	45	98.9	99.0	98.3	97.7
Senegal	0.7	2.3	1.7	2.1	6	11	4	7	99.9	99.8	99.8	99.8
Seychelles	6.3	0.2	0.8	-1.4	27	2	2	2	99.4	100.0	99.9	99.9
Sierra Leone	-0.9	-3.7	12.1	9.5	9	19	34	34	99.9	99.6	98.8	99.1
Somalia												
South Africa	5.4	9.2	3.4	4.7	21	32	11	16	99.5	99.1	99.7	99.5
Sudan	8.0	8.3	8.5	7.2	32	30	30	27	99.2	99.2	99.2	99.3
Swaziland	7.2	11.7	4.8	5.3	31	35	16	20	99.3	98.9	99.5	99.5
Tanzania	6.2	4.6	4.4	7.3	26	20	15	29	99.4	99.6	99.6	99.3
Togo	1.9	3.1	6.8	2.2	11	15	24	8	99.8	99.7	99.3	99.8
Uganda	5.8	-2.0	8.0	6.6	22	8	29	25	99.4	99.8	99.2	99.4
Zambia	26.1	22.2	18.3	9.0	43	44	42	33	97.4	97.8	98.2	99.1
Zimbabwe	55.6	133.2	237.8	1016.7	45	47	47	47	94.5	86.9	76.6	0.0

Category: Sustainable Economic Opportunity

Sub-Category: Macroeconomic Stability and Financial Integrity

INDICATOR: GOVERNMENT SURPLUS/DEFICITS

Government finance is another key indicator of Macroeconomic Stability and Financial Integrity. The Index's figures are from the African Development Bank's *Selected Statistics on African Countries: Statistiques choisies sur les pays africains* (Tunis, 2008). This indicator measures the budget surplus/deficit, i.e., total revenues and grants received minus total expenditure and net lending, expressed as a percentage of the country's GDP.¹

In 2006, the highest surpluses in the region were in Niger (41.6 percent), Madagascar (37.7 percent), and Mauritania (35.7 percent). The highest deficits were in Eritrea (-17.0 percent), São Tomé and Príncipe (-12.6 percent), Guinea-Bissau (-9.8 percent), and Zimbabwe (-7.3 percent).

Several other sources were also consulted for information on government finance, including the World Bank's World Development Indicators, the OECD and African Development Bank's *African Economic Outlook*, and Economist Intelligence Unit data files. The *Selected Statistics* were used because its data contained the most complete country coverage for our purposes.

Technical Notes

Figures are unavailable for Somalia.

¹ See "General Notes," in the *Selected Statistics* (2008), xiii.

Government Surplus/Deficits

African Development Bank, *Selected Statistics on African Countries 2008*

	SCALED DATA:											
	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	-7.8	-7.1	8.5	10.9	39	41	6	9	40.7	41.5	60.3	63.1
Benin	-1.8	-2.3	-2.9	-0.4	17	16	29	21	47.9	47.3	46.6	49.6
Botswana	5.4	-3.0	0.9	8.1	4	19	10	12	56.5	46.5	51.1	59.8
Burkina Faso	-4.3	-4.7	-4.9	-5.2	29	32	40	37	44.9	44.4	44.2	43.8
Burundi	-1.8	-1.4	-5.1	-1.7	17	12	42	26	47.9	48.4	43.9	48.0
Cameroon	4.4	1.1	3.6	5.0	5	4	8	14	55.3	51.4	54.4	56.1
Cape Verde	-7.8	-3.2	-4.0	-4.6	39	21	36	35	40.7	46.2	45.3	44.5
Central African Republic	-1.8	-1.2	-4.5	7.1	17	8	37	13	47.9	48.6	44.7	58.6
Chad	-6.8	-6.0	-1.1	2.0	35	37	18	16	41.9	42.9	48.7	52.5
Comoros	-1.9	-3.6	0.1	-2.6	21	23	14	30	47.8	45.7	50.2	46.9
Congo	1.1	-8.1	15.6	17.2	6	43	3	7	51.4	40.3	68.8	70.7
Congo, Democratic Rep.	-6.0	-2.0	-3.1	-0.7	32	14	32	23	42.9	47.7	46.3	49.2
Cote d'Ivoire	-1.3	-1.2	-1.7	-1.4	13	8	21	24	48.5	48.6	48.0	48.4
Djibouti	-1.8	-3.7	0.2	-2.4	17	24	13	28	47.9	45.6	50.3	47.2
Equatorial Guinea	8.6	12.9	21.2	26.2	2	1	2	5	60.4	65.5	75.5	81.5
Eritrea	-41.7	-30.4	-17.8	-17.0	47	47	47	47	0.0	13.6	28.7	29.7
Ethiopia	-9.3	-7.6	-4.7	-5.0	42	42	38	36	38.9	40.9	44.4	44.1
Gabon	11.7	3.5	8.6	9.2	1	2	5	10	64.1	54.3	60.4	61.1
Gambia	-1.4	-4.4	-8.6	-6.3	14	29	45	41	48.4	44.8	39.7	42.5
Ghana	-7.9	-6.8	-2.9	-7.0	41	39	29	42	40.6	41.9	46.6	41.7
Guinea	-3.2	-4.4	-1.5	-2.1	25	29	19	27	46.2	44.8	48.3	47.5
Guinea-Bissau	-6.9	-10.1	-11.9	-9.8	36	45	46	45	41.8	37.9	35.8	38.3
Kenya	0.8	-2.2	0.1	-3.3	7	15	14	33	51.0	47.4	50.2	46.1
Lesotho	-5.3	-3.3	4.8	13.4	31	22	7	8	43.7	46.1	55.8	66.1
Liberia	0.3	-1.2	0.8	4.2	10	8	11	15	50.4	48.6	51.0	55.1
Madagascar	-2.8	-5.5	-4.7	37.7	23	34	38	2	46.7	43.5	44.4	95.3
Malawi	-7.2	-5.9	-1.7	-0.2	38	36	21	19	41.4	43.0	48.0	49.8
Mali	-3.0	-3.8	-3.1	31.3	24	25	32	4	46.5	45.5	46.3	87.6
Mauritania	-6.0	-2.9	-7.1	35.7	32	18	44	3	42.9	46.6	41.5	92.9
Mauritius	-3.3	-6.1	-5.0	-5.3	26	38	41	39	46.1	42.7	44.1	43.7
Mozambique	-6.0	-7.0	-2.4	-1.4	32	40	25	24	42.9	41.7	47.2	48.4
Namibia	-3.5	-4.6	-3.6	-0.2	27	31	35	19	45.9	44.5	45.7	49.8
Niger	-3.8	-3.0	-2.1	41.6	28	19	24	1	45.5	46.5	47.5	100.0
Nigeria	6.0	-4.2	10.7	8.4	3	28	4	11	57.3	45.0	62.9	60.1
Rwanda	0.7	-1.2	0.7	-0.5	8	8	12	22	50.9	48.6	50.9	49.5
Sao Tome and Principe	-27.3	-3.9	26.1	-12.6	46	26	1	46	17.3	45.4	81.4	34.9
Senegal	0.5	-0.6	-3.2	-6.1	9	7	34	40	50.7	49.3	46.2	42.7
Seychelles	-13.9	-17.7	2.3	-7.1	44	46	9	43	33.4	28.8	52.8	41.5
Sierra Leone	-9.3	-8.3	-2.7	-2.7	42	44	28	31	38.9	40.1	46.8	46.8
Somalia												
South Africa	-2.0	-1.8	-0.3	0.3	22	13	16	18	47.7	47.9	49.7	50.4
Sudan	-0.7	3.1	-1.8	-4.2	12	3	23	34	49.2	53.8	47.9	45.0
Swaziland	-1.5	-4.7	-1.6	0.5	16	32	20	17	48.3	44.4	48.1	50.7
Tanzania	-1.4	-0.4	-3.0	-5.2	14	5	31	37	48.4	49.6	46.5	43.8
Togo	-5.0	-0.4	-2.4	-2.8	30	5	25	32	44.1	49.6	47.2	46.7
Uganda	-7.1	-4.1	-0.7	-2.4	37	27	17	28	41.5	45.1	49.2	47.2
Zambia	-0.5	-5.7	-2.6	18.6	11	35	27	6	49.5	43.2	46.9	72.4
Zimbabwe	-18.6	-2.7	-6.0	-7.3	45	17	43	44	27.7	46.8	42.9	41.3

Category: Sustainable Economic Opportunity
Sub-Category: Macroeconomic Stability and Financial Integrity

INDICATOR: RELIABILITY OF FINANCIAL INSTITUTIONS

The reliability of financial institutions is a third key component of Macroeconomic Stability and Financial Integrity. The Index uses the indicator of “Contract Intensive Money” (CIM), which was introduced in Christopher Clague, Philip Keefer, Stephen Knack, and Mancur Olsen, “Contract-Intensive Money: Contract Enforcement, Property Rights, and Economic Performance,” *Journal of Economic Growth*, IV (1999), 185–211. The CIM has also been used in a similar fashion in other work on governance, such as the UNDP’s Programme on Governance in the Arab Region (UNDP-POGAR). Using Clague et al.’s formula, we estimate figures for each country using data from the IMF’s International Financial Statistics.¹

CIM is the ratio of non-currency money to the total money supply, or $(M2-C)/M2$, where “M2” is a broad definition of the money supply and “C” is currency held outside banks. The closer the CIM value is to 1, the more money is held in the form of bank deposits, etc., rather than currency. Clague et al. argue convincingly that holding money in the form of bank deposits is consistent with individuals judging financial institutions to be more reliable, with more enforceable contracts and secure property rights. A low CIM value, on the other hand, suggests that individuals have little faith in financial institutions and contracts, preferring to hold their assets in currency. Most developed countries have CIM values above 0.9, while developing countries tend to have CIM values with a wider range from 0.3 to 0.9.

In 2006, estimated CIM values in sub-Saharan Africa (excluding Somalia), ranged from 0.28 (Guinea-Bissau) to 0.97 (Botswana), with an average across countries of 0.76. Following Guinea-Bissau, countries with the lowest CIM values include the Central African Republic, Chad, Niger, and Congo. In addition to Botswana, countries with the highest CIM values include Namibia, South Africa, and Swaziland, the latter three being members of a customs and monetary union.

Technical Notes

Figures are unavailable for Somalia. Figures for 2000 are unavailable for the DRC; the 2001 figure is given for 2000. Figures for 2005 and 2006 are unavailable for Mauritania; 2005 and 2006 figures given are for 2003. Mauritania’s CIM was 0.81 in 2000, 0.83 in 2001, 0.85 in 2002, and 0.86 in 2003. Figures for 2006 for Guinea and Rwanda are unavailable; 2005 figures are given for 2006.

¹ Last accessed 7 August 2008.

Reliability of Financial Institutions (Contract Intensive Money)

Our estimates using data from IMF, International Financial Statistics, based on Clague et al. 1999

	SCALED DATA:											
	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	0.82	0.81	0.85	0.88	15	17	15	10	80.4	79.3	84.4	89.1
Benin	0.56	0.66	0.70	0.65	42	35	35	37	47.5	61.1	65.0	59.4
Botswana	0.94	0.95	0.96	0.97	3	3	2	1	96.5	97.9	98.5	100.0
Burkina Faso	0.65	0.79	0.72	0.77	34	21	32	25	58.9	77.1	68.7	74.7
Burundi	0.71	0.74	0.76	0.80	29	30	29	20	66.8	70.2	72.9	78.5
Cameroon	0.74	0.75	0.82	0.84	24	27	18	17	70.2	72.1	80.9	83.6
Cape Verde	0.84	0.88	0.89	0.91	13	9	8	8	84.1	88.1	90.4	92.4
Central African Republic	0.20	0.26	0.30	0.34	47	46	46	46	1.8	9.6	14.5	19.8
Chad	0.33	0.38	0.38	0.42	45	45	45	45	18.6	24.6	24.5	30.3
Comoros	0.65	0.64	0.66	0.61	35	38	38	40	58.8	57.3	59.9	54.0
Congo	0.63	0.56	0.55	0.59	37	42	44	42	56.6	47.4	46.1	52.0
Congo, Democratic Rep.	0.46	0.47	0.56	0.57	44	44	43	43	34.9	36.3	47.2	49.2
Cote d'Ivoire	0.62	0.52	0.64	0.64	38	43	39	38	55.6	42.6	57.6	58.5
Djibouti	0.82	0.84	0.86	0.86	14	15	11	15	81.6	84.0	86.6	86.0
Equatorial Guinea	0.68	0.74	0.79	0.79	31	29	22	23	63.4	70.4	77.5	76.6
Eritrea	0.85	0.85	0.83	0.85	12	12	16	16	84.4	84.9	82.5	84.5
Ethiopia	0.80	0.81	0.80	0.79	17	18	21	21	78.7	79.3	77.7	77.6
Gabon	0.78	0.78	0.76	0.78	21	23	28	24	75.8	75.8	73.8	75.3
Gambia	0.73	0.75	0.77	0.75	26	28	27	28	69.1	72.1	74.3	72.0
Ghana	0.66	0.69	0.71	0.75	33	33	33	30	59.8	64.1	67.3	71.3
Guinea	0.53	0.58	0.61	0.61	43	41	40	41	43.6	49.8	53.7	53.7
Guinea-Bissau	0.33	0.19	0.23	0.28	46	47	47	47	17.7	0.0	5.5	12.0
Kenya	0.87	0.86	0.88	0.88	10	11	9	11	87.6	86.3	88.4	88.8
Lesotho	0.92	0.92	0.92	0.91	6	7	7	7	93.4	93.3	93.4	92.6
Liberia	0.72	0.65	0.66	0.69	27	37	37	35	68.5	59.1	60.5	64.5
Madagascar	0.67	0.68	0.71	0.72	32	34	34	33	62.0	63.1	66.2	68.3
Malawi	0.78	0.79	0.78	0.75	19	22	25	27	76.1	76.8	75.6	72.5
Mali	0.64	0.60	0.59	0.61	36	40	41	39	57.8	53.2	51.6	54.6
Mauritania	0.81	0.85	0.86	0.86	16	13	12	14	79.1	84.8	86.0	86.0
Mauritius	0.93	0.93	0.94	0.94	4	5	4	5	95.0	95.1	96.0	95.8
Mozambique	0.86	0.88	0.86	0.86	11	8	14	13	86.6	88.1	85.5	86.2
Namibia	0.96	0.96	0.96	0.97	1	1	1	2	98.3	98.3	98.9	99.6
Niger	0.69	0.71	0.56	0.53	30	32	42	44	64.4	67.1	48.3	44.3
Nigeria	0.74	0.76	0.79	0.81	25	25	23	19	70.1	73.0	76.6	79.9
Rwanda	0.78	0.83	0.82	0.82	18	16	19	18	76.4	82.5	80.5	80.5
Sao Tome and Principe	0.78	0.80	0.88	0.89	22	20	10	9	75.4	78.3	88.1	89.4
Senegal	0.78	0.80	0.76	0.74	20	19	30	31	76.1	78.6	72.7	70.8
Seychelles	0.92	0.92	0.93	0.92	7	6	5	6	93.4	94.3	95.4	94.0
Sierra Leone	0.59	0.61	0.68	0.69	40	39	36	36	51.7	53.7	63.1	63.9
Somalia												
South Africa	0.95	0.95	0.95	0.96	2	2	3	3	97.8	97.9	98.0	98.3
Sudan	0.59	0.66	0.73	0.70	41	36	31	34	51.5	60.0	69.0	65.6
Swaziland	0.93	0.95	0.93	0.94	5	4	6	4	94.8	97.2	95.0	96.5
Tanzania	0.72	0.76	0.79	0.79	28	26	24	22	68.0	73.0	76.5	76.8
Togo	0.61	0.73	0.80	0.74	39	31	20	32	54.3	69.1	78.2	70.6
Uganda	0.76	0.77	0.77	0.76	23	24	26	26	73.2	75.0	75.0	73.3
Zambia	0.88	0.88	0.86	0.87	8	10	13	12	88.8	88.0	85.7	87.5
Zimbabwe	0.87	0.85	0.83	0.75	9	14	17	29	87.9	84.7	82.3	71.8

Category: Sustainable Economic Opportunity
Sub-Category: Macroeconomic Stability and Financial Integrity
INDICATOR: BUSINESS ENVIRONMENT
 (NUMBER OF DAYS TO START A BUSINESS)

The regulatory and legal environment in which business operates is another component of Macroeconomic Stability and Financial Integrity. The Index seeks to capture key aspects of “Business Environment” using as an indicator the “number of days to start a business” from the World Bank’s *Doing Business* reports for 2004 through 2008.¹ These figures represent the number of days it takes to complete the requisite procedures to launch a commercial or industrial business that has up to fifty employees and start-up capital of ten times the country’s per capita gross national income.²

Doing Business estimates are based on analysis of laws and regulations and consultation with local experts:

After a study of laws, regulations and publicly available information on business entry, a detailed list of procedures is developed, along with the time and cost of complying with each procedure under normal circumstances and the paid-in minimum capital requirements. Subsequently, local incorporation lawyers and government officials complete and verify the data. On average 4 law firms participate in each country.³

For further information on the methodology used to construct this measure, see Simeon Djankov, Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei Shleifer, “The Regulation of Entry,” *Quarterly Journal of Economics*, CXVII (2002), 1–37.

In the Index, this indicator is scaled and ranked such that countries that require the most days to start a business receive the worst scores and those that require the fewest days receive the best scores. In other words, the highest scorers are those countries where it is easiest to start a business. This approach is adopted here because this indicator is intended to measure the degree to which there is an enabling environment for business. It would not necessarily be appropriate if these data were intended to assess other policy outcomes such as those tied to various regulations that might be placed on business. As Djankov et al. (2002) summarize, interpretation of this measure touches on a major debate in the literature about regulation between public interest theorists, who see regulation as socially efficient, and public choice theorists, who argue that regulation is socially inefficient and can be tied to corruption.⁴

According to these data, in 2006, it took an average of about 61 days to complete the requisite procedures to start a business in sub-Saharan Africa. The number of days also varied considerably across countries, ranging from highs of 233 days in Guinea-Bissau and 155 days in the Democratic Republic of the Congo, to lows of under 20 days in the Central African Republic, Ethiopia, and Rwanda.

Several other measures on business environment were also considered. For instance, the *Doing Business* reports also include the following additional indicators on starting a business: number of procedures; cost (percentage of income per capita); minimum capital (percentage of income per capita); and the *Doing Business* project’s own overall ranking of countries relative to each other in terms of the ease of starting a business. Profiles for each country are available on the Doing Business website.

1 Available at <http://www.doingbusiness.org> (last accessed 18 April 2008). The Index uses figures from this source current as of this date.

2 See also <http://www.doingbusiness.org/MethodologySurveys/StartingBusiness.aspx> for additional information on the assumptions used in the study about the type of business.

3 From <http://www.doingbusiness.org/MethodologySurveys/StartingBusiness.aspx> (last accessed 20 August 2007).

4 Djankov et al.’s (2002) analysis of data on eighty-five countries finds support for the public choice view, showing that “countries with heavier regulation of entry have higher corruption and larger unofficial economies, but not better quality of public or private goods” (1). The method of scaling used in the Index of African Governance is consistent with the public choice theory view.

Technical Notes

Note that the *Doing Business* project has revised some estimates for previous years given new methodology; thus, previous *Doing Business* reports may contain different annual numbers than those given here.⁵ The estimates given in the 2008 Index of African Governance reflect the current data from the *Doing Business* project, as of 18 April 2008.

Data in each *Doing Business* report refer to the previous year: for instance, data in *Doing Business 2007* are for April 2006.⁶ Thus, the Index uses *Doing Business 2007* figures for 2006 and *Doing Business 2006* figures for 2005 (unless otherwise noted).

The first *Doing Business* report was published in 2004, reporting results from 2003. Because no figures are thus available for 2000 and 2002, *Doing Business 2004* is used for 2000 and 2002. The available data suggest high correlation over time on the number of days to start a business in each country.

No data are available for Somalia.

Doing Business 2004, *2005*, and *2006* contain no estimates for the following countries: Cape Verde, the Comoros, Djibouti, Equatorial Guinea, Gabon, the Gambia, Guinea-Bissau, the Seychelles, and Swaziland. Index values for 2000, 2002, and 2005 are based on *Doing Business 2007*.

Doing Business 2004 and *2005* contain no estimates for Eritrea, Mauritius, São Tomé and Príncipe, and the Sudan. Index values for 2000 and 2002 are based on *Doing Business 2006*.

Estimates for Liberia are only available in *Doing Business 2008*. Index values for 2000, 2002, 2005, and 2006 are based on this figure.

⁵ We also found different estimates in the WDI (last accessed 18 April 2008).

⁶ From www.doingbusiness.org/Methodology/Surveys/default2.aspx.

Business Environment (Number of Days to Start a Business)

World Bank's *Doing Business* surveys

	SCALED DATA:											
	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	119	119	119	119	42	42	42	43	52.1	52.1	52.1	52.1
Benin	32	32	31	31	7	7	6	11	91.8	91.8	92.2	92.2
Botswana	108	108	108	108	41	41	41	41	57.1	57.1	57.1	57.1
Burkina Faso	40	40	40	34	16	16	19	12	88.1	88.1	88.1	90.9
Burundi	43	43	43	43	19	19	22	22	86.8	86.8	86.8	86.8
Cameroon	44	44	44	44	21	21	24	24	86.3	86.3	86.3	86.3
Cape Verde	52	52	52	52	25	25	27	27	82.6	82.6	82.6	82.6
Central African Republic	14	14	14	14	1	1	1	1	100.0	100.0	100.0	100.0
Chad	75	75	75	75	33	33	33	34	72.1	72.1	72.1	72.1
Comoros	23	23	23	23	3	3	3	5	95.9	95.9	95.9	95.9
Congo	37	37	37	37	11	11	13	15	89.5	89.5	89.5	89.5
Congo, Democratic Rep.	188	188	155	155	46	46	46	46	20.5	20.5	35.6	35.6
Cote d'Ivoire	62	62	45	45	31	31	25	25	78.1	78.1	85.8	85.8
Djibouti	37	37	37	37	11	11	13	15	89.5	89.5	89.5	89.5
Equatorial Guinea	136	136	136	136	43	43	43	44	44.3	44.3	44.3	44.3
Eritrea	84	84	84	84	35	35	36	37	68.0	68.0	68.0	68.0
Ethiopia	44	44	32	16	21	21	8	2	86.3	86.3	91.8	99.1
Gabon	58	58	58	58	27	27	30	30	79.9	79.9	79.9	79.9
Gambia	27	27	27	27	5	5	5	8	94.1	94.1	94.1	94.1
Ghana	85	85	81	81	36	36	34	35	67.6	67.6	69.4	69.4
Guinea	41	41	41	41	17	17	20	20	87.7	87.7	87.7	87.7
Guinea-Bissau	233	233	233	233	47	47	47	47	0.0	0.0	0.0	0.0
Kenya	60	60	54	54	29	29	29	29	79.0	79.0	81.7	81.7
Lesotho	92	92	92	73	38	38	37	33	64.4	64.4	64.4	73.1
Liberia	99	99	99	99	40	40	40	40	61.2	61.2	61.2	61.2
Madagascar	67	67	38	21	32	32	16	4	75.8	75.8	89.0	96.8
Malawi	43	43	37	37	19	19	13	15	86.8	86.8	89.5	89.5
Mali	42	42	42	42	18	18	21	21	87.2	87.2	87.2	87.2
Mauritania	82	82	82	82	34	34	35	36	68.9	68.9	68.9	68.9
Mauritius	46	46	46	46	24	24	26	26	85.4	85.4	85.4	85.4
Mozambique	153	153	153	113	45	45	45	42	36.5	36.5	36.5	54.8
Namibia	85	85	95	95	36	36	38	38	67.6	67.6	63.0	63.0
Niger	35	35	35	24	9	9	10	6	90.4	90.4	90.4	95.4
Nigeria	44	44	43	43	21	21	22	22	86.3	86.3	86.8	86.8
Rwanda	18	18	18	16	2	2	2	2	98.2	98.2	98.2	99.1
Sao Tome and Principe	144	144	144	144	44	44	44	45	40.6	40.6	40.6	40.6
Senegal	58	58	58	58	27	27	30	30	79.9	79.9	79.9	79.9
Seychelles	38	38	38	38	13	13	16	18	89.0	89.0	89.0	89.0
Sierra Leone	26	26	26	26	4	4	4	7	94.5	94.5	94.5	94.5
Somalia												
South Africa	38	38	35	35	13	13	10	13	89.0	89.0	90.4	90.4
Sudan	39	39	39	39	15	15	18	19	88.6	88.6	88.6	88.6
Swaziland	61	61	61	61	30	30	32	32	78.5	78.5	78.5	78.5
Tanzania	31	31	31	30	6	6	6	10	92.2	92.2	92.2	92.7
Togo	53	53	53	53	26	26	28	28	82.2	82.2	82.2	82.2
Uganda	34	34	34	28	8	8	9	9	90.9	90.9	90.9	93.6
Zambia	35	35	35	35	9	9	10	13	90.4	90.4	90.4	90.4
Zimbabwe	96	96	96	96	39	39	39	39	62.6	62.6	62.6	62.6

Category: Sustainable Economic Opportunity

Sub-Category: Arteries of Commerce

INDICATOR: ROAD NETWORK

Transportation infrastructure facilitates commerce and is an important component of Sustainable Economic Opportunity. As its measure of transportation infrastructure, the Index includes the density of a country's total road network per person, measured as kilometers of paved roads per 1,000 people. These figures provide a rough measure of transportation infrastructure, given the available data for the region. Those interested in a more detailed assessment of transportation infrastructure may also consider other indicators, such as the kilometers of roads per land area (shown below), the quality or condition of the road network, or the availability of other transportation networks such as navigable waterways.

Index data for this indicator are drawn from both international and local sources, based on our research in each country and desk studies at Harvard. The key international source is the International Road Federation's *IRF World Road Statistics 2007 (Data 2000 to 2005)* (Geneva, 2007). The *IRF World Road Statistics 2005 (Data 1999 to 2003)* was also consulted. Other international sources include the World Bank, *African Development Indicators 2007* (Washington, D.C., 2008); the U.S. Central Intelligence Agency's (CIA) *The World Factbook 2008* online (updated 15 April 2008); the African Development Bank and OECD's *African Economic Outlook 2007–08*; and the World Bank's World Development Indicators.¹ Country-specific sources are given below.

Our estimates suggest that the most extensive national road networks are in the Seychelles, Botswana, Namibia, and Cape Verde, while the worst are in Chad, the Democratic Republic of the Congo, Ethiopia, and the Sudan.

Length of Road Network by Country

Annual estimates on roads are unavailable for most sub-Saharan African countries. The detailed table below lists the best available figures for each country from both international and local sources covering the years 2000 to present. Figures highlighted in bold are those used in the Index. When figures from different sources conflict, we have judged which figures are most reliable, and generally used either the IRF's *World Road Statistics 2007*, which is the most up-to-date standard international source, or data provided to us directly by official local sources. For instance, we have assumed that kilometers of paved roads do not generally drop dramatically year to year, unless we have some reason to believe otherwise.

We know of no existing source for Africa's road network more comprehensive than our listing below.

When estimates are available for multiple years, the closest year's estimate is used for each Index year. The source of each estimate is noted in the table below. (A semicolon is used to indicate figures drawn from different sources.)

We attempted to collect data on this indicator for all countries. We obtained estimates from more countries than are included here; only data judged sufficiently reliable are included here.

In the 2007 Index of African Governance, we focused on total kilometers of roads, rather than kilometers of paved roads. We changed our indicator in 2008 in this manner for two key reasons. First, after closer examination of the data, we decided that paved roads better captured the extent to which infrastructure has been maintained. While unpaved roads can be used for transport, we judged that it is highly significant that the Central African Republic, for instance, has only some 700 kilometers of paved roads. Second, our local research highlighted significant problems with the counting of unpaved roads in particular—i.e., what is counted as a road? For one example, see Madagascar below.

Country research focused on obtaining local estimates for the two most recent years, 2005 and 2006, and on total roads.

¹ Figures from the African Development Indicators are generally consistent with the IRF data, although the African Development Indicators does not specify the year of the estimate (noting that data are for the most recent year available during 2000–2005).

Length of Road Network by Country

Country	IRF World Road Statistics 2005 and 2007		Country Research		
	Estimate(s) of Total Kilometers of Roads (Year of Estimate in Parentheses)	Estimate(s) of Paved Kilometers of Roads ²	Estimate(s) of Total Kilometers of Roads	Estimate(s) of Paved Kilometers of Roads	Source(s)
Angola	51,429 (2000), 51,429 (2001)	5,349 (2000), 5,349 (2001)	72,323 (2005)	7,777 (2005)	National Institute of Roads in Angola (INEA) 2005, as cited in Nathan Associates, "Angola: Diagnostic Trade Integration Study," (August 2006), 27.
Benin	6,787 (1999), 19,000 (2004)	1,357 (1999), 1,805 (2004)	13,306 (2005)		Ministry of Public Works and Transport ³
Botswana	10,217 (1999), 24,102 (2002), 25,233 (2003), 24,455 (2004)	? (2000), 8,508 (2002), 8,867 (2003), 8,119 (2004)	24,455 (2004), 25,798 (2005)	8,119 (2004), 8,565 (2005) ⁴	Central Statistics Office, Botswana, "Transport and Communications Statistics: 2005," <i>Stats Brief</i> (March 2007).
Burkina Faso	12,506 (1999), 92,495 (2004) ⁵	2,001 (1999), 3,857 (2004)	15,214 (2004)	2,545 (2004)	Direction Général des Routes/ Ministère des Infrastructures, des Transports et de l'Habitat, "Répertoire général du réseau routier national" (March 2004).
Burundi	14,480 (2000), 12,322 (2004)	1,028 (2000), 1,286 (2004)			
Cameroon	50,000 (2000), 50,000 (2004)	4,050 (2000), 5,000 (2004)		4,120 (2005), 4,478 (2006)	Ministry of Public Works ⁶
Cape Verde	1,350 (2000)	932 (2000)	1,437 (2006)	1,027 (2006)	Instituto das Estradas
Central African Republic	24,307 (2000)		24,307 (ca. 2007)	Approx. 700 (ca. 2007) ⁷	Central African Republic, Development Partner Consultation, "Sector Note: Transport," Brussels (26 June 2007), 1. ⁸
Chad	33,400 (2000)	267 (2000)			
Comoros	880 (2000)	673 (2000)	793 (2006)		Direction Nationale des Infrastructures
Congo	12,800 (2000), 17,289 (2004)	1,242 (2000), 864 (2004)			
Congo, Democratic Republic	157,000 (2000), 153,497 (2004)	2,858 (2000), 2,794 (2004) ⁹	171,000 (ca. 2007)	2,250 (ca. 2007)	"Democratic Republic of the Congo: Humanitarian Action Plan 2007," 42.

2 IRF provides the percentage of paved roads. Kilometers of paved roads are calculated using this percentage.

3 Additional information is needed to verify this figure, which appears inconsistent with the 2004 IRF estimate.

4 Estimated using the percentage of paved roads taken from IRF figures for 2004.

5 The World Bank's *African Development Indicators*, p. 72, estimates 15,272 km of roads and 4,765 km paved, for most recent year 2000–2005.

6 Provided by John Bitu Tambe, Sub Director, 9 January 2008.

7 This estimate is broadly consistent with other available figures. For instance, the World Bank's World Development Indicators (WDI) estimates 2.7 percent of roads were paved in 1998 (most recent figure available from this source as of 21 April 2008). This figure is also reported by United Nations Conference on Trade and Development (UNCTAD), *Landlocked Developing Countries: Facts and Figures 2006* (New York, 2006), 18.

8 Available at <http://www.car-conference.net/documents> (last accessed 4 August 2008).

9 Percentage of paved roads is unavailable for 2000; 2000 estimate is based on 2004 percentage.

Côte d'Ivoire	50,400 (2000), 80,000 (2004)	4,889 (2000), 6,496 (2004)			
Djibouti	3,065 (2000)	1,379 (2000)	3,079 (2005), 3,086 (2006)	535 (2005), 542 (2006) ¹⁰	Ministère de l'Équipement et du Transport
Equatorial Guinea	2,880 (2000)	? (2000)		700 (ca. 2006)	Economist Intelligence Unit, <i>Equatorial Guinea – Country Profile</i> (London, 2006), 15.
Eritrea	4,010 (2000)	874 (2000)			
Ethiopia	29,571 (2000), 32,871 (2001), 33,297 (2002), 33,856 (2003), 36,469 (2004)	3,549 (2000), 3,945 (2001), 3,996 (2002), 4,367 (2003), 6,980 (2004)	31,554 (2000), 32,871 (2001), 33,297 (2002), 33,856 (2003), 36,496 (2004), 37,018 (2005), 39,477 (2006)	3,824 (2000), 3,924 (2001), 4,053 (2002), 4,362 (2003), 4,635 (2004), 4,972 (2005), 5,002 (2006)	Ethiopian Roads Authority ¹¹
Gabon	8,464 (2000), 9,170 (2004)	838 (2000), 936 (2004)			
Gambia	2,700 (2000), 3,742 (2003), 3,742 (2004)	956 (2000), 723 (2003), 723 (2004)			
Ghana	39,409 (2000), 46,179 (2001), 47,787 (2003), 54,311 (2004), 57,613 (2005)	11,665 (2000), 8,497 (2001), 8,563 (2003), 9,733 (2004) ¹² ? (2005)	59,218 (2005), 63,221 (2006)	10,421 (2005), 10,957 (2006)	Ministry of Transportation ¹³
Guinea	30,500 (2000), 44,348 (2003)	5,033 (2000), 4,342 (2003)	34,585 (2001), 34,585 (2002), 34,585 (2003)	2,060 (2001), 2,200 (2002), 2,399 (2003)	Direction Nationale de la Statistique ¹⁴
Guinea-Bissau	4,400 (1999), 3,455 (2002)	453 (1999), 965 (2002)	2,755 (2000), 2,755 (2001), 2,755 (2002), 2,755 (2003)	770 (2000), 770 (2001), 770 (2002), 770 (2003)	Instituto Nacional de Estatística e Censos ¹⁵
Kenya	63,942 (2000), 63,265 (2004)	7,737 (2000), 8,933 (2004)	63,000 (ca. 2004) ¹⁶		Kenya Roads Board
Lesotho	5,940 (2000)	1,087 (2000)	2,370 (2005), 2,370 (2006)	1,367 (2005), 1,350 (2006)	Ministry of Public Works and Transport – Roads Branch Planning and Records Office
Liberia	10,600 (2000)	657 (2000)	9,917 (2007)	734 (2007)	Liberian President Ellen Johnson Sirleaf, annual address to the National Legislature, (January 2008) ¹⁷

10 We use these figures (and not the IRF figure for 2000) because they were provided to us directly by an official government source and are consistent with several other estimates found.

11 Taken from SABA Engineering, "Dukem-Abu Sera Road Project, Feasibility Study," prepared for Oromiya Rural Roads Authority, June 2007, "Table 1: Road Network Development and Road Density (1997–2006)," 8.

12 Estimate is calculated using 2003 percentage of paved roads. We exclude the 2000 figure because it appears inconsistent with the other estimates. The 2002 estimate is calculated as an average of 2001 and 2003 figures.

13 Annual Road Condition Surveys, 2006–2007 (unpublished).

14 Original sources are given as Direction Nationale de l'entretien routier and Direction Nationale des Transports Terrestres, available at <http://www.stat-guinee.org> (last accessed 4 August 2008).

15 Original sources are given as Direcção Geral de estradas e pontes and Direcção nacional de transportes terrestres, available at <http://www.state-guinebissau.com/> (last accessed 4 August 2008).

16 According to the Kenya Roads Board: "The size of Kenya's Road Network is estimated at 177,500km comprising 63,000km classified roads and 114,500km of unclassified roads," available at <http://www.krb.go.ke/Classification.php> (last accessed 4 August 2008).

17 As given in Sulaiman Momodu, "Road Rehabilitation Creates More Jobs," *UNMIL FOCUS* (December 2007–February 2008), 5. On total roads, our field researcher's sources at the Ministry of Public Works, Liberia, reported 737km in 2005 and 753km in 2006. These figures are broadly consistent with the kilometers of paved roads, or alternatively may describe a slightly different measure, such as classified roads only.

Madagascar	49,827 (2000)	5,780 (2000)	11,746 (2005), 11,746 (2006)	5,366 (2005), 5,429 (2006) ¹⁸	Roads Authority of Madagascar ¹⁹
Malawi	28,400 (1999); 15,451 (2003)	5,254 (1999), 6,956 (2003) ²⁰	24,929 (August 2007)	4,123 (August 2007)	Roads Authority, “Annual National Roads Programme 2008-00,” 4.
Mali	15,100 (2000), 18,709 (2004)	1,827 (2000), 3,368 (2004)	12,298 (2005), 16,490 (2006) ²¹	3,367 (2002), 2,215 (2003), 3,307 (2004), 3,418 (2005), 3,667 (2006) ²²	Direction Nationale de la Statistique et de l’Information
Mauritania	7,660 (2000)	866 (2000)	7,991 (2000), 7,991 (2001), 8,376 (2002), 8,394 (2003), 8,621 (2004), 9,144 (2005), 11,066 (2006)	903 (2000), 903 (2001), 946 (2002), 949 (2003), 974 (2004), 1,033 (2005), 1,250 (2006) ²³	Direction des Travaux Publics et SNIM ²⁴
Mauritius	1,926 (2000), 2,000 (2001), 2,000 (2002), 2,015 (2003), 2,015 (2004)	1,868 (2000), 1,960 (2001), 1,960 (2002), 2,015 (2003), 2,015 (2004)	1,926 (2000), 2,000 (2001), 2,000 (2002), 2,015 (2003), 2,020 (2004), 2,020 (2005), 2,021 (2006), 2,028 (2007)	2,020 (2005), 2,021 (2006), 2,028 (2007) ²⁵	Central Statistics Office ²⁶
Mozambique	30,400 (2000)	5,685 (2000)	32,348 (ca. 2006)	6,314 (ca. 2006)	Administração Nacional de Estradas ²⁷
Namibia	66,467 (2000), 42,237 (2002)	9,040 (2000), 5,406 (2002) ²⁸	42,238 (2000/01), 42,238 (2001/02), 42,238 (2002/03), 42,238 (2003/04), 42,238 (2004/05), 42,261 (2005/06)	5,477 (00/01), 5,477 (01/02), 5,477 (02/03), 5,477 (03/04), 5,477 (04/05), 5,822 (05/06)	Roads Authority ²⁹

18 We use these figures (and not the IRF figure for 2000) because they were provided to us directly by an official government source.

19 As provided by the General Secretary of the Madagascar Action Plan (MAP)/Presidency of the Republic of Madagascar.

20 We use these figures (and not the local figure for 2007) because they are consistent with several other sources and because the 2007 figures would suggest a sharp (unexplained) decline in paved roads.

21 Données Statistiques du Mali—Ministère du plan et de l’Aménagement du Territoire – Direction Nationale de la Statistique et de l’Information—2007.

22 Original source is Direction Nationale des transports (DNT), available at <http://www.dnsi.gov.ml/> (last accessed 4 August 2008).

23 Paved roads are estimated using the 2000 percentage of paved roads from IRF. Local sources give only figures for “Rtes bitumées et voies urbaines,” equivalent to 2,330 (2000), 2,330 (2001), 2,715 (2002), 2,715 (2003), 2,812 (2004), 2,768 (2005), 2,971 (2006).

24 From Office National des Statistiques (ONS), *Annuaire Statistique 2006* (Nouakchott, 2007), 56.

25 Using IRF 2003 and 2004 estimate of 100 percent of roads paved.

26 “Road Network, 1981–2007” (excel file), available at <http://www.gov.mu/portal/site/cso/> (last accessed 4 August 2008).

27 *Road Sector Strategy 2007–2011 – Final Report* (Maputo, 2006), 19.

28 Estimate for 2000 is based on 1999 figure of percentage of paved roads.

29 *Annual Report (April 2004 to March 2005)*, 17, and personal communication for 2005/06 figure.

Niger	14,658 (2001), 14,657 (2002), 15,074 (2003), 18,387 (2004), 18,423 (2005)	3,761 (2001), 3,761 (2002), 3,761 (2003), 3,760 (2004), 3,797 (2005)	14,630 (2000), 14,658 (2001), 14,657 (2002), 15,074 (2003), 18,387 (2004), 18,423 (2005), 18,550 (2006)	3,761 (2000), 3,761 (2001), 3,761 (2002), 3,761 (2003), 3,761 (2004), 3,797 (2005), 3,797 (2006)	Direction Générale des Travaux Publics ³⁰
Nigeria	193,200 (2004)	28,980 (2004)			National statistics are fragmentary. ³¹
Rwanda	12,000 (2000), 14,008 (2004)	996 (2000), 2,662 (2004) ³²			
São Tomé and Príncipe	320 (2000)	218 (2000)	1,149 (2005), 1,149 (2006)	301 (2005), 301 (2006)	Instituto Nacional de Estradas (INAE), Ministério das Obras Públicas e Infraestruturas ³³
Senegal	14,583 (2000), 13,576 (2003)	4,273 (2000), 3,972 (2003)	14,634 (2004)	4,559 (2004)	Ministère de l'Économie et des Finances and Agence Nationale de la Statistique et de la Démographie, <i>Situation Économique et Sociale du Sénégal</i> (édition 2005), 101. ³⁴
Seychelles	458 (2003)	440 (2003)	456 (2002), 458 (2003), 498 (2004), 498 (2005), 502 (2006)	437 (2002), 440 (2003), 478 (2004), 478 (2005), 482 (2006)	National Statistics Bureau ³⁵
Sierra Leone	11,300 (2000), 11,300 (2002)	893 (2000), 904 (2002)	11,555 (2005/06)	1,031 (05/06)	Sierra Leone Roads Administration ³⁶
Somalia	22,100 (2000)	2,608 (2000)			
South Africa	362,099 (2000), 364,131 (2001)	73,506 (2000), 62,995 (2001) ³⁷			
Sudan	11,900 (2000)	4,320 (2000)			
Swaziland	3,107 (2000), 3,584 (2001), 3,594 (2002)	932 (2000), 1,075 (2001), 1,078 (2002) ³⁸	3,768 (ca. 2008)	1,130 (ca. 2008) ³⁹	Roads Department ⁴⁰
Tanzania	88,200 (2000), 78,891 (2003)	3,704 (2000), 6,808 (2003)	28,892 (2006)	4,581 (2006)	Ministry of Planning, Economy and Empowerment ⁴¹
Togo	7,520 (2000)	2,376 (2000)			
Uganda	70,746 (2003)	16,272 (2003)			

30 From Institut National de la Statistique, "Réseau routier," available at <http://www.stat-niger.org/> (last accessed 4 August 2008).

31 See National Bureau of Statistics, *Annual Abstract of Statistics 2006*, Chapter 10: "Transportation and Communication" and "Transport Statistics," paper available at <http://www.nigerianstat.gov.ng/descr.php?recordID=18> (last accessed 4 August 2008)

32 Given the sharp change in paved roads, an estimate for 2002 is calculated as an average of 2000 and 2004 figures.

33 Provided by Nazare Tiny Rita, February 2008.

34 Original source is *Mémento des Transports Terrestres*, édition 2004.

35 *Seychelles in Figures*, 2007 Edition (June 2007), Table 8, p.17, and, 2006 Edition (July 2006), Table 8, p. 18.

36 Estimates from the draft Sierra Leone Roads Administration "Vision 2014" report, as provided by Alfred Jalil Momodu, Senior Engineer, SLRA (31 March 2008).

37 The 2001 estimate is not used because the 2000 estimate is found to be more consistent with other sources, including the *African Development Indicators 2007*. It is unclear why paved roads in South Africa would drop by more than 10,000 km in one year.

38 Figures for 2000 and 2001 are estimated using percentage of paved roads from 2002.

39 Estimated using percentage of paved roads from IRF for 2002.

40 <http://www.gov.sz/home.asp?pid=1231> (last accessed 4 August 2008).

41 *The Economic Survey 2006*, (Dar es Salaam, 2007), 163. We rely on the standard international sources only in this case because discrepancies in the estimates suggest different definitions. Further information is needed.

Zambia	66,781 (2000), 91,440 (2001)	? (2000), 20,117 (2001)			
Zimbabwe	97,267 (2002)	18,480 (2002)	88,300 (ca. 2005)	15,000 (2005)	Zimbabwe National Road Administration ⁴²

Estimates of paved kilometers per 1,000 people are provided in the Data Table for this indicator. Population estimates used are drawn from the World Bank's World Development Indicators 2008 for the appropriate Index year.⁴³

Roads per Land Area

The 2007 Index of African Governance used an alternative measure of transportation infrastructure, kilometers of roads per land area. We chose to adjust our measure in the 2008 Index because we decided that this measure unduly penalized geographically large countries and because we sought a measure that would adjust for population.

Nevertheless, this measure remains a useful indicator. The table below provides estimates of paved roads per land area (kilometers per 100 square kilometers). Estimates of land area are drawn from the World Bank's World Development Indicators 2008 for the appropriate Index year.⁴⁴ Estimates in italics are not for the given year, but are the closest available estimate.

Kilometers of Paved Roads per Land Area (km per 100 sq. km)				
	2000	2002	2005	2006
Angola	0.43	<i>0.43</i>	0.62	<i>0.62</i>
Benin	<i>1.23</i>	<i>1.63</i>	<i>1.63</i>	<i>1.63</i>
Botswana	<i>1.50</i>	1.50	<i>1.51</i>	1.51
Burkina Faso	<i>0.73</i>	<i>0.73</i>	<i>1.41</i>	<i>1.41</i>
Burundi	4.00	<i>4.00</i>	<i>5.01</i>	<i>5.01</i>
Cameroon	0.87	<i>0.89</i>	0.89	0.96
Cape Verde	23.13	<i>23.13</i>	<i>25.48</i>	<i>25.48</i>
Central African Republic	<i>0.11</i>	<i>0.11</i>	<i>0.11</i>	<i>0.11</i>
Chad	0.02	<i>0.02</i>	<i>0.02</i>	<i>0.02</i>
Comoros	36.16	<i>36.16</i>	<i>36.16</i>	<i>36.16</i>
Congo	0.36	<i>0.36</i>	<i>0.25</i>	<i>0.25</i>
Congo, DR	0.13	<i>0.13</i>	<i>0.12</i>	<i>0.10</i>
Côte d'Ivoire	1.54	<i>1.54</i>	<i>2.04</i>	<i>2.04</i>
Djibouti	<i>2.31</i>	<i>2.31</i>	2.31	2.34
Equatorial Guinea	<i>2.50</i>	<i>2.50</i>	<i>2.50</i>	<i>2.50</i>
Eritrea	0.87	<i>0.87</i>	<i>0.87</i>	<i>0.87</i>
Ethiopia	0.38	0.41	0.50	0.50
Gabon	0.33	<i>0.33</i>	<i>0.36</i>	<i>0.36</i>
Gambia, the	9.56	<i>7.23</i>	<i>7.23</i>	<i>7.23</i>
Ghana	3.73	<i>3.75</i>	4.58	4.82
Guinea	<i>0.84</i>	0.90	<i>0.98</i>	<i>0.98</i>
Guinea-Bissau	2.74	<i>2.74</i>	<i>2.74</i>	<i>2.74</i>
Kenya	1.36	<i>1.36</i>	<i>1.57</i>	<i>1.57</i>
Lesotho	3.58	<i>3.58</i>	4.50	4.45
Liberia	0.68	<i>0.68</i>	<i>0.76</i>	<i>0.76</i>

⁴² As given in World Bank, Africa Transport Sector, *Zimbabwe Infrastructure Assessment Note for Roads, Railways, and Water Sectors*, Report No. 36978-ZW (Washington, D.C., 2006). The report notes that this is "the most recent estimate of ZINARA from field surveys and is not necessarily the length of roads that have been 'Declared' in terms of the law" (p. 3).

⁴³ Last accessed 4 August 2008.

⁴⁴ Last accessed 6 July 2008.

Madagascar	0.92	0.92	0.92	0.93
Malawi	5.58	7.39	7.39	7.39
Mali	0.28	0.28	0.28	0.30
Mauritania	0.09	0.09	0.10	0.12
Mauritius	92.02	96.55	99.51	99.56
Mozambique	0.72	0.72	0.80	0.80
Namibia	0.67	0.67	0.67	0.71
Niger	0.30	0.30	0.30	0.30
Nigeria	3.18	3.18	3.18	3.18
Rwanda	4.04	7.41	10.79	10.79
São Tomé and Príncipe	22.71	22.71	31.35	31.35
Senegal	2.22	2.22	2.37	2.37
Seychelles	95.00	95.00	103.91	104.78
Sierra Leone	1.25	1.26	1.44	1.44
Somalia	0.42	0.42	0.42	0.42
South Africa	6.05	6.05	6.05	6.05
Sudan	0.18	0.18	0.18	0.18
Swaziland	5.42	6.27	6.57	6.57
Tanzania	0.42	0.77	0.77	0.77
Togo	4.37	4.37	4.37	4.37
Uganda	8.26	8.26	8.26	8.26
Zambia	2.71	2.71	2.71	2.71
Zimbabwe	4.78	4.78	3.88	3.88

Selections for Further Reading

African Union and United Nations Economic Commission for Africa, *Transport and the Millennium Development Goals in Africa* (Washington D.C., 2005), available at www.worldbank.org/afrr/ssatp/transport_poverty/transport_mdg.pdf.

Shatadru Roy Choudhury, "Sector Focus: Transport, Better roads vital for economic growth," in *African Business* (London, 1999), 14 (3 pages).

Arnaud Desmarchelier, "SSATP Transport Indicator Initiative, Concept Note," sub-Saharan Africa Transport Policy Program (SSATP), (Washington, D.C., 2004).

Arnaud Desmarchelier, "SSATP Transport Indicator Initiative, Report on the Second Transport Data Collection Cycle," SSATP, (Washington, D.C., 2006).

Mick Foster, *Transport in Low-income Countries and Sub-national Growth* (London, 2005).

International Development Centre of Japan, "Transport and ICT: Making Infrastructure Pro-Poor, Final Report," (2004), sponsored by JBIC.

Organisation for Economic Co-operation and Development, "Promoting Pro-Poor Growth, Infrastructure" in *Promoting Pro-Poor Growth, Policy Guidance for Donors* (Paris, 2006).

Road Management Initiative, "Africa Transport Technical Note, SSATP Note No. 17," SSATP, (Washington, D.C., 1999).

Kilometers of Paved Roads per 1,000 People

Index of African Governance Country Research and International Road Federation (and World Development Indicators [WDI 2008] for population figures)

	SCALED DATA:											
	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	0.38	0.36	0.48	0.47	24	24	18	19	6.2	5.9	8.0	7.7
Benin	0.19	0.23	0.21	0.21	39	35	38	37	2.8	3.6	3.3	3.1
Botswana	4.92	4.79	4.67	4.61	2	2	2	2	85.3	83.1	80.8	79.9
Burkina Faso	0.17	0.16	0.28	0.27	41	43	32	32	2.5	2.3	4.4	4.2
Burundi	0.15	0.15	0.16	0.16	42	44	44	44	2.2	2.1	2.4	2.3
Cameroon	0.26	0.25	0.23	0.25	32	33	36	34	4.0	3.9	3.6	3.8
Cape Verde	2.07	1.97	2.03	1.98	4	4	4	4	35.6	33.9	34.9	34.1
Central African Republic	0.18	0.18	0.17	0.16	40	42	43	43	2.7	2.6	2.5	2.4
Chad	0.03	0.03	0.03	0.03	48	48	48	48	0.1	0.1	0.0	0.0
Comoros	1.25	1.19	1.12	1.10	11	11	11	11	21.3	20.4	19.1	18.7
Congo	0.39	0.37	0.24	0.23	23	23	35	36	6.3	6.0	3.7	3.6
Congo, Democratic Rep.	0.06	0.05	0.05	0.04	47	47	47	47	0.5	0.5	0.4	0.2
Cote d'Ivoire	0.29	0.28	0.35	0.34	31	31	24	25	4.6	4.4	5.6	5.5
Djibouti	0.73	0.70	0.67	0.66	13	13	15	15	12.3	11.8	11.1	11.1
Equatorial Guinea	1.63	1.53	1.45	1.41	7	8	9	9	27.9	26.6	24.7	24.2
Eritrea	0.24	0.22	0.19	0.19	35	37	40	40	3.7	3.4	2.9	2.8
Ethiopia	0.06	0.06	0.07	0.06	46	46	46	46	0.6	0.6	0.7	0.7
Gabon	0.71	0.68	0.73	0.71	14	14	13	13	11.9	11.4	12.2	12.0
Gambia	0.69	0.49	0.45	0.43	15	19	21	21	11.6	8.1	7.3	7.1
Ghana	0.42	0.40	0.46	0.48	21	21	20	18	6.9	6.6	7.6	7.9
Guinea	0.25	0.26	0.27	0.26	33	32	33	33	3.9	4.1	4.2	4.1
Guinea-Bissau	0.56	0.53	0.48	0.47	18	18	19	20	9.3	8.8	8.0	7.7
Kenya	0.25	0.24	0.25	0.24	34	34	34	35	3.9	3.7	3.9	3.8
Lesotho	0.58	0.56	0.69	0.68	17	17	14	14	9.6	9.4	11.6	11.3
Liberia	0.21	0.20	0.21	0.21	37	39	37	38	3.3	3.1	3.3	3.1
Madagascar	0.33	0.31	0.29	0.28	29	29	30	29	5.3	5.0	4.6	4.5
Malawi	0.45	0.57	0.53	0.51	19	16	17	17	7.4	9.4	8.7	8.5
Mali	0.34	0.32	0.29	0.31	28	27	28	27	5.4	5.1	4.7	4.9
Mauritania	0.35	0.35	0.35	0.41	26	26	25	22	5.7	5.6	5.6	6.7
Mauritius	1.57	1.62	1.62	1.61	8	7	7	7	27.0	27.8	27.9	27.6
Mozambique	0.31	0.30	0.31	0.30	30	30	27	28	5.0	4.7	4.9	4.8
Namibia	2.91	2.82	2.71	2.84	3	3	3	3	50.3	48.7	46.8	49.1
Niger	0.34	0.31	0.29	0.28	27	28	31	31	5.4	5.0	4.5	4.4
Nigeria	0.23	0.22	0.21	0.20	36	36	39	39	3.6	3.4	3.1	3.0
Rwanda	0.12	0.21	0.29	0.28	44	38	29	30	1.7	3.2	4.6	4.5
Sao Tome and Principe	1.56	1.50	1.97	1.94	9	9	5	5	26.7	25.7	33.9	33.4
Senegal	0.41	0.39	0.39	0.38	22	22	22	23	6.8	6.4	6.3	6.1
Seychelles	5.39	5.22	5.77	5.70	1	1	1	1	93.4	90.5	100.0	98.8
Sierra Leone	0.20	0.18	0.18	0.18	38	41	41	41	3.0	2.8	2.8	2.7
Somalia	0.37	0.35	0.32	0.31	25	25	26	26	6.0	5.6	5.1	4.9
South Africa	1.67	1.62	1.57	1.55	6	6	8	8	28.7	27.9	26.9	26.6
Sudan	0.13	0.12	0.12	0.11	43	45	45	45	1.8	1.7	1.6	1.6
Swaziland	0.89	0.99	1.00	0.99	12	12	12	12	15.1	16.8	17.0	16.9
Tanzania	0.11	0.19	0.18	0.17	45	40	42	42	1.5	2.9	2.6	2.6
Togo	0.44	0.41	0.38	0.37	20	20	23	24	7.2	6.8	6.2	6.0
Uganda	0.66	0.62	0.56	0.54	16	15	16	16	11.0	10.3	9.3	9.0
Zambia	1.92	1.85	1.75	1.72	5	5	6	6	33.1	31.8	30.1	29.5
Zimbabwe	1.46	1.44	1.14	1.13	10	10	10	10	25.0	24.6	19.5	19.3

Category: Sustainable Economic Opportunity

Sub-Category: Arteries of Commerce

INDICATOR: ELECTRICITY CAPACITY

The stable provision of electricity is another key component of public infrastructure, useful in facilitating commerce and in the quality of daily life. This indicator assesses electricity using a measure of total installed capacity per capita (in kilowatts). Total installed capacity includes installed capacity from four areas: thermal; hydroelectric; nuclear; and geothermal, solar, wind, wood, and waste sources. Data on installed capacity are drawn from the U.S. Energy Information Administration's *International Energy Annual 2005*, which was released June–October 2007 (the latest release).¹ Population figures are taken from the World Bank's World Development Indicators 2008.² Several other indicators and data sources were also considered for inclusion in the Index, and are described below.

The most recent statistics on electricity in Africa (for 2005) show the highest total installed capacity per capita in the Seychelles (1.146 kilowatts), followed by South Africa (0.8633 kw), Mauritius (0.5268 kw), and Gabon (0.3208 kw). By comparison, Gabon has slightly less installed capacity per capita than China (0.3391 kw). At the other end of the spectrum are Chad (0.0029 kw), Rwanda (0.0034 kw), Togo (0.0034 kw), and Burundi (0.0074 kw). Overall, and not adjusted by population, South Africa has the greatest installed capacity at 40.481 million kilowatts, followed distantly by Nigeria at 5.898 million kilowatts. The Comoros, with some 5,000 kilowatts, has the lowest installed electricity capacity.

The 2007 Index of African Governance used a different measure of electricity provision, assessing “average number of days per year [that] the establishment experienced power outages or surges from the public grid.” Estimates were drawn from the World Bank's Enterprise Surveys.³ The Index team used a different indicator this year primarily because of missing data; it sought a measure that could be used to study electricity capacity in all countries over time.

Technical Notes

The most recent data available are for 2005. The *International Energy Annual 2005* notes that the data for this year are provisional. These figures are used as estimates for 2006 in the Index of African Governance.

Additional Considerations

Several other measures of energy and electricity were considered by the Index of African Governance. These include measures of production, consumption, imports, and exports.

For further discussion on indicators for sustainable development, see International Atomic Energy Agency, United Nations Department of Economic and Social Affairs, International Energy Agency, Eurostat, and European Environmental Agency, *Energy Indicators for Sustainable Development: Guidelines and Methodologies* (Vienna, 2005).

These measures are useful for a more in-depth analysis of energy and electricity. Sources for such data include the OECD, the International Energy Association, the Energy Information Administration, and the African Development Bank's *Selected Statistics on African Countries 2007 and 2008*. The “Africa Infrastructure Country Diagnostic” and the “Medium to Long Term Strategic Framework” study undertaken by the African Development Bank on behalf of NEPAD are other useful projects. For a useful overview on energy issues in Africa, see “Africa's Energy Shortage: Africa's Power Supply Crisis: Unraveling the Paradoxes,” *IMF Survey online* (22 May 2008).⁴ An interesting study of capacity building is Amelia Suckling, Mengistu Teferra, Stephen Karekezi, and J. Bagueant, *Capacity Building for a Reforming African Power Sector* (London, 2003). See also Robert I. Rotberg, *Africa's Successes: Evaluating Accomplishment*, WPF Report 43 (Cambridge, MA, 2007).

1 See <http://www.eia.doe.gov/iea/elec.html> (last accessed 26 July 2008).

2 Last accessed 24 July 2008.

3 See <http://www.enterprisesurveys.org/Default.aspx>.

4 <http://www.imf.org/external/pubs/ft/survey/so/2008/CAR052208C.htm> (last accessed 6 July 2008).

Electricity Installed Capacity per capita (kilowatts)

Energy Information Administration's *International Energy Annual 2005*

	SCALED DATA:											
	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	0.0421	0.0431	0.0516	0.0516	21	20	18	18	3.4	3.5	4.3	4.3
Benin	0.0161	0.0158	0.0144	0.0144	33	34	34	34	1.2	1.1	1.0	1.0
Botswana	0.0764	0.0744	0.0719	0.0719	13	13	12	12	6.4	6.3	6.0	6.0
Burkina Faso	0.0102	0.0140	0.0129	0.0129	41	37	37	37	0.6	1.0	0.9	0.9
Burundi	0.0081	0.0060	0.0074	0.0074	44	45	45	45	0.5	0.3	0.4	0.4
Cameroon	0.0516	0.0542	0.0507	0.0507	17	17	19	19	4.3	4.5	4.2	4.2
Cape Verde	0.0932	0.1080	0.1539	0.1539	12	10	7	7	7.9	9.2	13.2	13.2
Central African Republic	0.0103	0.0100	0.0095	0.0095	40	41	42	42	0.6	0.6	0.6	0.6
Chad	0.0034	0.0032	0.0029	0.0029	48	48	48	48	0.1	0.0	0.0	0.0
Comoros	0.0093	0.0089	0.0083	0.0083	43	42	43	43	0.6	0.5	0.5	0.5
Congo	0.0378	0.0359	0.0335	0.0335	23	23	24	24	3.1	2.9	2.7	2.7
Congo, Democratic Rep.	0.0488	0.0476	0.0416	0.0416	18	18	21	21	4.0	3.9	3.4	3.4
Cote d'Ivoire	0.0542	0.0579	0.0583	0.0583	16	16	16	16	4.5	4.8	4.9	4.9
Djibouti	0.1165	0.1180	0.1119	0.1119	10	9	11	11	9.9	10.1	9.5	9.5
Equatorial Guinea	0.0139	0.0266	0.0269	0.0269	36	28	26	26	1.0	2.1	2.1	2.1
Eritrea	0.0163	0.0150	0.0133	0.0133	32	35	35	35	1.2	1.1	0.9	0.9
Ethiopia	0.0074	0.0078	0.0100	0.0100	45	44	40	40	0.4	0.4	0.6	0.6
Gabon	0.3366	0.3307	0.3208	0.3208	4	4	4	4	29.2	28.7	27.8	27.8
Gambia	0.0210	0.0196	0.0179	0.0179	29	33	33	33	1.6	1.5	1.3	1.3
Ghana	0.0578	0.0592	0.0661	0.0661	15	15	13	13	4.8	4.9	5.5	5.5
Guinea	0.0238	0.0334	0.0304	0.0304	26	25	25	25	1.8	2.7	2.4	2.4
Guinea-Bissau	0.0153	0.0144	0.0132	0.0132	34	36	36	36	1.1	1.0	0.9	0.9
Kenya	0.0325	0.0343	0.0340	0.0340	24	24	23	23	2.6	2.8	2.7	2.7
Lesotho	0.0401	0.0392	0.0382	0.0382	22	22	22	22	3.3	3.2	3.1	3.1
Liberia	0.1075	0.1016	0.0546	0.0546	11	11	17	17	9.2	8.6	4.5	4.5
Madagascar	0.0140	0.0132	0.0122	0.0122	35	38	38	38	1.0	0.9	0.8	0.8
Malawi	0.0208	0.0247	0.0234	0.0234	31	29	29	29	1.6	1.9	1.8	1.8
Mali	0.0114	0.0236	0.0241	0.0241	37	31	28	28	0.7	1.8	1.9	1.9
Mauritania	0.0440	0.0423	0.0591	0.0591	20	21	14	14	3.6	3.4	4.9	4.9
Mauritius	0.4452	0.5429	0.5268	0.5268	3	3	3	3	38.7	47.2	45.8	45.8
Mozambique	0.1309	0.1248	0.1140	0.1140	8	8	10	10	11.2	10.7	9.7	9.7
Namibia	0.1405	0.1359	0.1307	0.1307	7	7	8	8	12.0	11.6	11.2	11.2
Niger	0.0094	0.0088	0.0079	0.0079	42	43	44	44	0.6	0.5	0.4	0.4
Nigeria	0.0472	0.0448	0.0417	0.0417	19	19	20	20	3.9	3.7	3.4	3.4
Rwanda	0.0036	0.0034	0.0034	0.0034	47	47	47	47	0.1	0.1	0.0	0.0
Sao Tome and Principe	0.0731	0.0620	0.0590	0.0590	14	14	15	15	6.1	5.2	4.9	4.9
Senegal	0.0227	0.0277	0.0255	0.0255	28	26	27	27	1.7	2.2	2.0	2.0
Seychelles	1.0847	1.1111	1.1460	1.1460	1	1	1	1	94.6	97.0	100.0	100.0
Sierra Leone	0.0292	0.0268	0.0211	0.0211	25	27	32	32	2.3	2.1	1.6	1.6
Somalia	0.0112	0.0107	0.0098	0.0098	39	40	41	41	0.7	0.7	0.6	0.6
South Africa	0.9049	0.8947	0.8633	0.8633	2	2	2	2	78.9	78.0	75.3	75.3
Sudan	0.0209	0.0209	0.0217	0.0217	30	32	31	31	1.6	1.6	1.6	1.6
Swaziland	0.1254	0.0983	0.1300	0.1300	9	12	9	9	10.7	8.4	11.1	11.1
Tanzania	0.0237	0.0242	0.0229	0.0229	27	30	30	30	1.8	1.9	1.8	1.8
Togo	0.0054	0.0049	0.0034	0.0034	46	46	46	46	0.2	0.2	0.0	0.0
Uganda	0.0113	0.0115	0.0111	0.0111	38	39	39	39	0.7	0.8	0.7	0.7
Zambia	0.1709	0.1636	0.1549	0.1549	5	5	6	6	14.7	14.1	13.3	13.3
Zimbabwe	0.1486	0.1632	0.1600	0.1600	6	6	5	5	12.8	14.0	13.7	13.7

Category: Sustainable Economic Opportunity

Sub-Category: Arteries of Commerce

INDICATOR: TELEPHONE SUBSCRIBERS

A first indicator of telecommunications infrastructure included in the Index assesses access to telephone communications. This indicator is measured using data from the International Telecommunication Union (ITU) on telephone subscribers (both mobile and fixed) per 100 inhabitants. Figures are drawn from the *African Telecommunication/ICT Indicators 2008: At a Crossroads* (Geneva, 2008), a report prepared for the ITU TELECOM Africa conference, Cairo, Egypt, 12–15 May 2008, and the 2007 release of the ITU's *World Telecommunication/ICT Indicators Database* (December 2007).¹

This indicator is one of several that can be used to assess telephone-related infrastructure. The United Nations Partnership on Measuring ICT for Development's 2005 report, *Core ICT Indicators*, summarizes other indicators.² Previously, the Index of African Governance included an indicator that focused on mobile phone subscribers only, due to the importance of mobile phone communications in the region. We revised the measure for this edition of the Index based on comments from our readers, who noted that fixed line service is also still important, especially in some countries.

The Seychelles has the best telephone coverage in all years covered by the Index; in 2006, there was at least one telephone for every inhabitant of the Seychelles (111.95 per 100). The worst coverage in 2006 was in Ethiopia, where only 1 in 50 inhabitants had a telephone. Across countries, there were on average about 21 telephones per 100 inhabitants, roughly equivalent to Kenya (21.75).

Technical Notes

Figures taken from the *African Telecommunication/ICT Indicators 2008* are calculated by adding estimates of main telephone lines per 100 inhabitants and cellular subscribers per 100 inhabitants. The ITU provides the following descriptions of the relevant indicators:

Fixed telephone lines refer to telephone lines connecting a customer's terminal equipment (e.g. telephone set, facsimile machine) to the public switched telephone network (PSTN) and which have a dedicated port on a telephone exchange. *Fixed telephone lines per 100 inhabitants* is calculated by dividing the number of fixed telephone lines by the population and multiplying by 100.

Mobile phone subscribers refer to users of portable telephones subscribing to an automatic public mobile telephone service using cellular technology, which provides access to the PSTN [Public Switched Telephone Network]. Users of both post-paid subscriptions and pre-paid accounts are included. *Mobile cellular subscribers per 100 inhabitants* is obtained by dividing the number of mobile cellular subscribers by the population and multiplying by 100.³

No figure is available for Botswana's fixed lines per 100 inhabitants in 2005. It is estimated using the averages of the 2004 and 2006 figures.

Figures for fixed lines per 100 inhabitants for 2006 are missing for Congo, Djibouti, Equatorial Guinea, Niger, and South Africa. The 2005 figures are used as estimates.

1 The 2007 ICT Database is updated with figures from the *African Telecommunication/ICT Indicators 2008*, which covers 2003 to 2006 or 2007 for most countries. These figures differ from those published in the 2007 Index of African Governance because of revisions to the ITU's data. Another useful source is the African Development Bank's *Selected Statistics for African Countries* (Tunis, 2008), Table 9 (p. 19). The "cut-off" date for figures to be included in this source was 28 February 2008 (p. x). Because these sources differ, ICT figures and estimates derived from ICT figures are used in place of the African Development Bank figures with the exceptions of the estimates for Liberia and Sierra Leone, described below.

2 Available at <http://www.itu.int/ITU-D/ict/partnership/material/CoreICTIndicators.pdf> (last accessed 23 April 2008).

3 United Nations Partnership on Measuring ICT for Development, *Core ICT Indicators* (2005), available at <http://www.itu.int/ITU-D/ict/partnership/material/CoreICTIndicators.pdf> (last accessed 23 April 2008), 7. For more information, see pages 6–7.

Figures are missing for Guinea for 2006. The 2005 figures are used as estimates.

No figures are available for Liberia after 2001. The 2001 figures are used as estimates for 2002. For 2005 and 2006, an estimate is calculated based on the 2006 estimates given in the African Development Bank's *Selected Statistics 2008* (p. 19). The same method of estimation is used for Sierra Leone for 2005 and 2006, for which no figures were available from the ICT sources after 2002.

Telephone Subscribers (Fixed and Mobile) per 100 Inhabitants

International Telecommunication Union

	SCALED DATA:											
	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	0.69	1.58	10.97	14.95	37	32	21	22	0.6	1.4	9.8	13.3
Benin	1.68	4.14	8.97	13.02	20	21	24	25	1.5	3.7	8.0	11.6
Botswana	21.79	33.53	39.69	54.56	4	4	5	5	19.4	29.9	35.4	48.7
Burkina Faso	0.69	1.45	5.48	8.16	37	35	33	31	0.6	1.3	4.9	7.2
Burundi	0.54	1.05	2.44	3.00	40	40	44	43	0.4	0.9	2.1	2.6
Cameroon	1.31	5.13	14.41	19.68	26	18	16	19	1.1	4.5	12.8	17.5
Cape Verde	17.10	25.11	32.21	34.79	5	5	6	7	15.2	22.4	28.7	31.0
Central African Republic	0.40	0.55	2.73	2.98	43	47	40	44	0.3	0.4	2.4	2.6
Chad	0.21	0.58	2.28	4.78	46	46	46	39	0.1	0.5	2.0	4.2
Comoros	0.98	1.35	4.07	6.83	27	36	38	36	0.8	1.2	3.6	6.1
Congo	3.13	7.39	12.65	19.83	13	15	19	18	2.8	6.6	11.3	17.7
Congo, Democratic Rep.	0.05	1.08	4.79	7.46	48	39	35	33	0.0	0.9	4.2	6.6
Cote d'Ivoire	4.98	8.20	14.36	23.44	9	12	17	15	4.4	7.3	12.8	20.9
Djibouti	1.57	3.83	7.93	7.03	21	22	29	35	1.4	3.4	7.0	6.2
Equatorial Guinea	2.45	8.08	21.25	29.17	15	13	10	9	2.1	7.2	18.9	26.0
Eritrea	0.84	0.90	1.78	2.18	31	42	47	47	0.7	0.8	1.5	1.9
Ethiopia	0.39	0.60	1.32	2.00	44	45	48	48	0.3	0.5	1.1	1.7
Gabon	12.97	23.95	49.96	56.98	6	6	4	4	11.5	21.4	44.6	50.9
Gambia	3.09	10.42	19.21	28.97	14	8	11	10	2.7	9.3	17.1	25.8
Ghana	1.74	3.19	14.45	24.67	18	23	15	14	1.5	2.8	12.9	22.0
Guinea	0.89	1.52	2.69	2.69	30	33	42	45	0.8	1.3	2.4	2.4
Guinea-Bissau	0.93	0.89	8.11	10.05	28	43	27	29	0.8	0.8	7.2	8.9
Kenya	1.37	4.79	14.28	21.75	23	19	18	17	1.2	4.2	12.7	19.4
Lesotho	2.45	9.25	16.59	22.96	15	11	13	16	2.1	8.2	14.8	20.5
Liberia	0.26	0.28	4.66	4.66	45	48	36	40	0.2	0.2	4.1	4.1
Madagascar	0.73	1.30	3.24	6.15	35	38	39	38	0.6	1.1	2.9	5.5
Malawi	0.92	1.52	4.13	6.31	29	33	37	37	0.8	1.3	3.6	5.6
Mali	0.49	1.03	7.39	11.46	42	41	30	28	0.4	0.9	6.6	10.2
Mauritania	1.34	10.39	25.64	34.67	24	9	8	8	1.2	9.2	22.9	30.9
Mauritius	38.61	55.79	81.47	89.95	2	2	3	3	34.5	49.8	72.8	80.3
Mozambique	0.79	1.87	7.95	11.93	33	28	28	27	0.7	1.6	7.1	10.6
Namibia	10.80	14.48	28.94	36.30	7	7	7	6	9.6	12.9	25.8	32.4
Niger	0.21	0.68	2.49	3.52	46	44	43	42	0.1	0.6	2.2	3.1
Nigeria	0.51	1.92	15.06	25.31	41	27	14	13	0.4	1.7	13.4	22.6
Rwanda	0.73	1.32	2.73	3.58	35	37	40	41	0.6	1.1	2.4	3.2
Sao Tome and Principe	3.30	5.72	12.18	16.25	12	16	20	20	2.9	5.1	10.8	14.5
Senegal	4.79	7.72	17.13	27.36	10	14	12	12	4.2	6.9	15.3	24.4
Seychelles	60.35	84.14	99.45	111.96	1	1	1	1	53.9	75.1	88.8	100.0
Sierra Leone	0.69	1.86	2.39	2.39	37	29	45	46	0.6	1.6	2.1	2.1
Somalia	1.50	1.81	7.30	7.65	22	30	31	32	1.3	1.6	6.5	6.8
South Africa	29.16	39.83	81.57	93.30	3	3	2	2	26.0	35.5	72.8	83.3
Sudan	1.32	2.63	6.83	13.66	25	24	32	24	1.1	2.3	6.1	12.2
Swaziland	6.43	9.99	22.75	28.56	8	10	9	11	5.7	8.9	20.3	25.5
Tanzania	0.82	2.12	9.24	15.18	32	25	23	21	0.7	1.8	8.2	13.5
Togo	2.00	4.54	9.73	12.53	17	20	22	26	1.7	4.0	8.6	11.2
Uganda	0.78	1.73	4.86	7.09	34	31	34	34	0.7	1.5	4.3	6.3
Zambia	1.70	2.04	8.95	14.81	19	26	25	23	1.5	1.8	8.0	13.2
Zimbabwe	4.53	5.39	8.20	9.05	11	17	26	30	4.0	4.8	7.3	8.0

Category: Sustainable Economic Opportunity

Sub-Category: Arteries of Commerce

INDICATOR: COMPUTER USAGE

A second indicator of telecommunications infrastructure included in the Index assesses computer usage. This indicator is measured using data from the International Telecommunication Union (ITU) on computer users per 100 inhabitants. Figures are drawn from the 2007 release of the ITU's *World Telecommunication/ICT Indicators Database* (December 2007) and the *African Telecommunication/ICT Indicators 2008: At a Crossroads* (Geneva, 2008), a report prepared for the ITU TELECOM Africa conference, Cairo, Egypt, 12–15 May 2008.¹

In 2006, computer usage per 100 inhabitants ranged from a high of just over 20 users (or one-fifth of the population) in the Seychelles to a low of 0.02 users in the Democratic Republic of the Congo. In addition, figures were unavailable for Liberia and Sierra Leone. Across countries, average computer usage was about 3.2 users per 100 inhabitants, roughly equivalent to usage in Gabon (3.34 per 100 inhabitants).

Technical Notes

The ITU description is as follows:

Computers measures the number of computers installed in a country. The statistic includes PCs, laptops, notebooks, etc., but excludes terminals connected to mainframe and mini-computers that are primarily intended for shared use, and devices such as smart-phones and personal digital assistants (PDAs) that have only some, but not all, of the components of a PC (e.g. they may lack a full-sized keyboard, a large screen, an Internet connection, drives, etc.). *Computers per 100 inhabitants* is obtained by dividing the estimated number computers in use by the population and multiplying by 100.²

According to the ITU, figures tend to be based on estimates derived from data on computer shipments per year and the estimated life of a PC.

A number of the 2006 figures are based on ITU estimates using the previous year's data, as noted in the *African Telecommunications Indicators 2008* (p. 62).

No estimates are available for Liberia and Sierra Leone.

Estimates for 2000 are missing for the Democratic Republic of the Congo, Guinea-Bissau, Lesotho, Rwanda, São Tomé and Príncipe, and Somalia. Estimates for 1999 are also not available for these countries, so 2001 figures are used as approximations.

1 International Telecommunication Union, "Definition of World Telecommunication/ICT Indicators – Final Version (April 2007)" (2007), available at <http://www.itu.int/ITU-D/ict/handbook.html>. The 2007 ICT Database is updated with figures from the *African Telecommunication/ICT Indicators 2008*, which covers 2003 to 2006 or 2007 for most countries. These figures may differ from those published in the 2007 Index of African Governance. The African Development Bank's *Selected Statistics for African Countries* (Tunis, 2008), p. 20, was also consulted. ICT figures and estimates derived from ICT figures are used when figures differ.

2 United Nations Partnership on Measuring ICT for Development, *Core ICT Indicators* (2005), available at <http://www.itu.int/ITU-D/ict/partnership/material/CoreICTIndicators.pdf>, 8. See also International Telecommunication Union, "Definition of World Telecommunication/ICT Indicators – Final Version (April 2007)" (2007), available at <http://www.itu.int/ITU-D/ict/handbook.html>.

Computer Usage per 100 Inhabitants

International Telecommunication Union

	SCALED DATA:											
	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	0.11	0.19	0.60	0.70	40	36	29	28	0.5	0.9	2.8	3.3
Benin	0.16	0.22	0.43	0.57	34	33	35	33	0.7	1.0	2.0	2.7
Botswana	3.65	4.07	4.87	5.11	6	7	8	8	17.4	19.4	23.3	24.4
Burkina Faso	0.13	0.16	0.24	0.66	36	39	39	30	0.6	0.7	1.1	3.1
Burundi	0.06	0.06	0.73	0.83	43	44	27	27	0.2	0.2	3.4	3.9
Cameroon	0.33	0.57	1.23	1.23	25	22	21	22	1.5	2.7	5.8	5.8
Cape Verde	5.75	7.77	11.56	11.96	4	3	4	4	27.5	37.1	55.3	57.2
Central African Republic	0.17	0.20	0.30	0.30	32	34	38	39	0.8	0.9	1.4	1.4
Chad	0.15	0.17	0.16	0.16	35	38	43	43	0.7	0.8	0.7	0.7
Comoros	0.43	0.55	0.68	0.68	21	23	28	29	2.0	2.6	3.2	3.2
Congo	0.37	0.39	0.48	0.48	23	29	34	37	1.7	1.8	2.2	2.2
Congo, Democratic Rep.	0.01	0.02	0.02	0.02	46	46	46	46	0.0	0.1	0.1	0.1
Cote d'Ivoire	0.61	0.93	1.78	1.78	18	16	17	18	2.9	4.4	8.5	8.5
Djibouti	1.03	1.52	2.75	2.75	12	12	13	13	4.9	7.2	13.1	13.1
Equatorial Guinea	0.44	0.69	1.79	1.79	20	19	16	17	2.1	3.3	8.5	8.5
Eritrea	0.17	0.25	0.57	0.66	32	31	31	30	0.8	1.1	2.7	3.1
Ethiopia	0.09	0.15	0.39	0.55	41	40	37	35	0.4	0.7	1.8	2.6
Gabon	0.98	1.92	3.25	3.34	13	11	12	12	4.6	9.1	15.5	15.9
Gambia	1.19	1.43	1.65	2.02	10	13	18	16	5.6	6.8	7.8	9.6
Ghana	0.31	0.40	0.58	0.58	27	27	30	32	1.4	1.9	2.7	2.7
Guinea	0.39	0.55	0.56	0.56	22	23	32	34	1.8	2.6	2.6	2.6
Guinea-Bissau	0.21	0.24	0.22	0.22	31	32	40	41	1.0	1.1	1.0	1.0
Kenya	0.49	0.65	1.44	1.44	19	20	19	20	2.3	3.1	6.8	6.8
Lesotho	0.06	0.07	0.08	0.08	43	43	44	44	0.2	0.3	0.3	0.3
Liberia												
Madagascar	0.22	0.41	0.55	0.55	30	26	33	35	1.0	1.9	2.6	2.6
Malawi	0.12	0.13	0.19	0.19	39	41	42	42	0.5	0.6	0.9	0.9
Mali	0.13	0.19	0.40	0.40	36	36	36	38	0.6	0.9	1.9	1.9
Mauritania	0.98	1.08	2.56	2.56	13	15	14	14	4.6	5.1	12.2	12.2
Mauritius	10.05	14.87	16.87	17.52	2	2	2	3	48.0	71.1	80.7	83.8
Mozambique	0.35	0.45	1.43	1.43	24	25	20	21	1.6	2.1	6.8	6.8
Namibia	4.21	7.09	12.26	19.49	5	4	3	2	20.1	33.9	58.6	93.2
Niger	0.05	0.06	0.07	0.07	45	44	45	45	0.2	0.2	0.3	0.3
Nigeria	0.66	0.71	0.91	0.91	16	18	25	25	3.1	3.3	4.3	4.3
Rwanda	0.13	0.13	0.21	0.30	36	41	41	39	0.6	0.6	1.0	1.4
Sao Tome and Principe	0.98	1.37	3.83	3.83	13	14	10	10	4.6	6.5	18.3	18.3
Senegal	1.68	1.98	2.14	2.14	9	10	15	15	8.0	9.4	10.2	10.2
Seychelles	14.25	16.58	19.84	20.91	1	1	1	1	68.1	79.3	94.9	100.0
Sierra Leone												
Somalia	0.07	0.20	0.91	0.91	42	34	25	25	0.3	0.9	4.3	4.3
South Africa	6.36	7.09	8.36	8.36	3	4	6	6	30.4	33.9	40.0	40.0
Sudan	0.32	0.61	9.26	11.45	26	21	5	5	1.5	2.9	44.3	54.7
Swaziland	1.19	2.42	4.07	4.07	10	9	9	9	5.6	11.5	19.4	19.4
Tanzania	0.29	0.40	0.93	0.93	28	27	24	24	1.3	1.9	4.4	4.4
Togo	2.16	3.08	3.63	3.63	7	8	11	11	10.3	14.7	17.3	17.3
Uganda	0.25	0.32	1.04	1.67	29	30	23	19	1.1	1.5	4.9	7.9
Zambia	0.65	0.72	1.12	1.12	17	17	22	23	3.1	3.4	5.3	5.3
Zimbabwe	1.71	5.16	7.14	6.61	8	6	7	7	8.1	24.6	34.1	31.6

Category: Sustainable Economic Opportunity

Sub-Category: Arteries of Commerce

INDICATOR: INTERNET USAGE

Telecommunications infrastructure facilitates commerce and is a key component of Sustainable Economic Opportunity. The final indicator of telecommunications infrastructure included in the Index assesses Internet usage. This indicator is measured using data from the International Telecommunication Union (ITU) on Internet users per 100 inhabitants. Figures are drawn from the 2007 release of the ITU's *World Telecommunication/ICT Indicators Database* (December 2007) and the *African Telecommunication/ICT Indicators 2008: At a Crossroads* (Geneva, 2008), a report prepared for the ITU TELECOM Africa conference, Cairo, Egypt, 12–15 May 2008.¹

This measure is one of many indicators that could be used to assess Internet-related telecommunications infrastructure. The United Nations Partnership on Measuring ICT for Development's 2005 report, *Core ICT Indicators*, summarizes other measures that might be used to assess Internet quality and access.² These include international bandwidth, Internet access tariffs, and Internet subscribers. Although figures on other such indicators tend to be incomplete for the countries studied in the Index, ITU figures on such indicators could be used for more in-depth studies on telecommunications infrastructure in particular African countries.

In 2006, estimated Internet usage per 100 inhabitants ranged from a high of 35.67 in the Seychelles to a low of 0.28 in Niger. Liberia and Sierra Leone were also estimated at the bottom. Across countries, average estimated Internet usage was 4.1 per 100 inhabitants, or roughly equivalent to usage in Swaziland (4.08).

Technical Notes

Estimates for 2006 are unavailable for Mozambique, South Africa, and Tanzania. Estimates for 2005 are used as approximations.

Estimates are also unavailable for two of the countries with the worst Internet usage statistics, Liberia (for all years after 2001) and Sierra Leone (for 2005 and 2006). Available estimates suggest that both countries have among the very lowest estimates in each year. Given this and the lack of other information, Internet usage rates for both countries are roughly estimated for 2002, 2005, and 2006 as equivalent to the lowest actual estimates in each of those years. Other options would have been to use previous years' data to substitute for or to estimate the missing numbers. This was not done because the fast pace of telecommunications growth in the region has made such estimations problematic, particularly over multiple years. The African Development Bank's *Selected Statistics 2008* estimates 0.03 users per 100 in Liberia in both 2001 and 2006 and 0.15 and 0.17 users per 100 in Sierra Leone in 2001 and 2006, respectively.

1 The 2007 ICT Database is updated with figures from the *African Telecommunication/ICT Indicators 2008*, which covers 2003 to 2006 or 2007 for most countries. These figures may differ from those published in the 2007 Index of African Governance. The African Development Bank's *Selected Statistics for African Countries* (Tunis, 2008), p. 20, was also consulted. ICT figures and estimates derived from ICT figures are used when figures differ.

2 Available at <http://www.itu.int/ITU-D/ict/partnership/material/CoreICTIndicators.pdf> (last accessed 23 April 2008). See also ITU, "Definition of World Telecommunication/ICT Indicators – Final Version (April 2007)," available at <http://www.itu.int/ITU-D/ict/handbook.html> (last accessed 23 April 2008).

Internet Usage per 100 Inhabitants

International Telecommunication Union

	SCALED DATA:											
	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	0.11	0.29	0.55	0.60	34	32	35	37	0.3	0.8	1.5	1.7
Benin	0.24	0.74	1.33	1.44	18	19	27	28	0.6	2.1	3.7	4.0
Botswana	3.04	3.49	3.40	4.55	5	8	14	14	8.5	9.8	9.5	12.7
Burkina Faso	0.08	0.21	0.49	0.59	38	38	40	39	0.2	0.6	1.3	1.6
Burundi	0.07	0.11	0.53	0.77	39	45	38	35	0.2	0.3	1.5	2.1
Cameroon	0.27	0.38	1.53	2.23	15	26	23	23	0.7	1.0	4.3	6.2
Cape Verde	1.84	3.55	6.09	6.36	7	7	6	7	5.1	9.9	17.1	17.8
Central African Republic	0.06	0.13	0.27	0.32	41	42	43	43	0.1	0.3	0.7	0.9
Chad	0.04	0.19	0.41	0.60	43	39	41	37	0.1	0.5	1.1	1.7
Comoros	0.22	0.42	2.51	2.56	19	24	18	20	0.6	1.1	7.0	7.2
Congo	0.03	0.15	1.25	1.70	45	41	28	25	0.1	0.4	3.5	4.7
Congo, Democratic Rep.	0.01	0.09	0.24	0.30	48	46	44	44	0.0	0.2	0.6	0.8
Cote d'Ivoire	0.27	0.55	1.10	1.63	15	21	29	26	0.7	1.5	3.1	4.5
Djibouti	0.22	0.69	1.45	1.36	19	20	24	29	0.6	1.9	4.0	3.8
Equatorial Guinea	0.15	0.36	1.39	1.55	27	28	26	27	0.4	1.0	3.9	4.3
Eritrea	0.14	0.23	1.82	2.19	31	36	20	24	0.4	0.6	5.1	6.1
Ethiopia	0.02	0.07	0.21	0.30	46	47	45	44	0.0	0.2	0.6	0.8
Gabon	1.22	1.92	4.84	5.76	9	11	8	9	3.4	5.4	13.5	16.1
Gambia	0.95	1.88	3.82	5.29	11	12	12	11	2.6	5.2	10.7	14.8
Ghana	0.15	0.82	1.81	2.70	27	18	21	19	0.4	2.3	5.1	7.5
Guinea	0.11	0.46	0.62	0.52	34	23	34	41	0.3	1.3	1.7	1.4
Guinea-Bissau	0.25	1.12	2.32	2.26	17	15	19	22	0.7	3.1	6.5	6.3
Kenya	0.33	1.27	3.24	7.89	14	13	15	6	0.9	3.5	9.1	22.1
Lesotho	0.22	1.17	2.87	2.87	19	14	16	18	0.6	3.3	8.0	8.0
Liberia	0.02	0.07	0.21	0.28	46	47	45	46	0.0	0.2	0.6	0.8
Madagascar	0.19	0.32	0.54	0.58	24	30	37	40	0.5	0.9	1.5	1.6
Malawi	0.15	0.26	0.41	0.45	27	34	41	42	0.4	0.7	1.1	1.2
Mali	0.15	0.24	0.53	0.64	27	35	38	36	0.4	0.6	1.5	1.8
Mauritania	0.20	0.37	0.65	0.95	23	27	33	33	0.5	1.0	1.8	2.6
Mauritius	7.29	10.33	24.10	25.48	2	2	2	2	20.4	28.9	67.6	71.4
Mozambique	0.12	0.28	0.90	0.90	32	33	32	34	0.3	0.8	2.5	2.5
Namibia	1.69	2.67	3.97	4.39	8	9	11	15	4.7	7.5	11.1	12.3
Niger	0.04	0.13	0.21	0.28	43	42	45	46	0.1	0.3	0.6	0.8
Nigeria	0.07	0.35	3.80	5.95	39	29	13	8	0.2	1.0	10.6	16.7
Rwanda	0.06	0.31	0.55	1.08	41	31	35	31	0.1	0.8	1.5	3.0
Sao Tome and Principe	4.65	7.54	13.42	13.74	4	3	3	3	13.0	21.1	37.6	38.5
Senegal	0.42	1.04	4.63	5.45	13	16	9	10	1.1	2.9	13.0	15.3
Seychelles	7.77	14.97	26.04	35.67	1	1	1	1	21.8	42.0	73.0	100.0
Sierra Leone	0.11	0.16	0.21	0.28	34	40	45	46	0.3	0.4	0.6	0.8
Somalia	0.21	0.12	1.09	1.11	22	44	30	30	0.6	0.3	3.0	3.1
South Africa	5.26	6.66	10.75	10.75	3	4	4	4	14.7	18.6	30.1	30.1
Sudan	0.10	0.91	1.43	2.30	37	17	25	21	0.3	2.5	4.0	6.4
Swaziland	0.99	1.94	4.02	4.08	10	10	10	17	2.7	5.4	11.2	11.4
Tanzania	0.12	0.22	1.00	1.00	32	37	31	32	0.3	0.6	2.8	2.8
Togo	2.16	4.10	5.88	5.07	6	6	7	12	6.0	11.5	16.5	14.2
Uganda	0.16	0.39	1.74	5.02	26	25	22	13	0.4	1.1	4.9	14.1
Zambia	0.19	0.47	2.87	4.22	24	22	16	16	0.5	1.3	8.0	11.8
Zimbabwe	0.44	4.30	8.40	9.32	12	5	5	5	1.2	12.0	23.5	26.1

Category: Sustainable Economic Opportunity

Sub-Category: Environment Sustainability

INDICATOR: ENVIRONMENTAL PERFORMANCE INDEX

The 2008 Environmental Performance Index (EPI) assesses countries based on two broad areas of environmental performance: 1) “reducing environmental stresses to human health” and 2) “protecting ecosystems and natural resources (the Ecosystem Vitality objective).”¹ For a detailed description, see Daniel C. Esty, M.A. Levy, C.H. Kim, A. de Sherbinin, T. Srebotnjak, and V. Mara, *2008 Environmental Performance Index* (New Haven, 2008).

The EPI is a composite index based on twenty-five indicators in six policy categories: Environmental Health, Air Quality, Water Resources, Biodiversity and Habitat, Productive Natural Resources, and Climate Change. It uses a proximity-to-target methodology. The 2008 EPI scores are available for 149 countries. Those that are not coded generally have missing data.

Across available countries in sub-Saharan Africa, EPI scores average 57.8, ranging from lows of 39.1 in Niger and 40.0 in Sierra Leone to highs of 77.3 in Gabon and 78.1 in Mauritius.

Technical Notes

The 2008 Index of African Governance uses the 2008 EPI as an estimate for all years (2000, 2002, 2005, and 2006). It should be noted that data limitations mean that the 2008 EPI in fact must rely on figures for earlier years.² The 2007 Index of African Governance used a previous iteration of the EPI, the Pilot 2006 Environmental Performance Index.³ Given the changes between the 2008 EPI and Pilot 2006 EPI, these two indices are not comparable. We therefore use only the 2008 EPI. An earlier iteration of the EPI project, the Environmental Sustainability Index, is also available for earlier years. However, we use the EPI for all years because its focus on environmental performance is more compatible with our project.

EPI scores are missing for Cape Verde, the Comoros, Equatorial Guinea, the Gambia, Lesotho, Liberia, São Tomé and Príncipe, the Seychelles, and Somalia. Given the lack of available estimates for these nine countries and the weight of this indicator in the calculation of the Sustainable Economic Opportunity category, we calculate this category in two ways, including and excluding the EPI. Overall scores are shown at the beginning of this sub-section. Calculations which include the EPI are used in the calculation of the overall Index of African Governance. In these calculations, we use the average Index scaled score for the EPI across available countries—48.1—as a substitute for the missing Environmental Sensitivity sub-scores for these nine countries.⁴ These substitutions are indicated in bold in the category datasheets.

For Further Reading

In addition to the Pilot 2006 EPI and the Environmental Sustainability Index, a number of alternative data sources and indicators were explored by the Index team. Examples of useful resources include Lester R. Brown’s *Plan B 3.0: Mobilizing to Save Civilization* (Washington, D.C., 2008), published by the Earth Policy Institute; the Millennium Challenge Corporation’s Natural Resource Management Index; and the World Health Organization’s analysis of the “Environmental Burden of Disease.” A useful bibliography is available on the website of the 2008 Environmental Performance Index.⁵

1 See <http://epi.yale.edu/Framework> (last accessed 6 July 2008).

2 For further information, see Esty, et al., *2008 Environmental Performance Index*, pp. 62–93.

3 See Daniel C. Esty, Marc A. Levy, Tanja Srebotnjak, Alexander de Sherbinin, Christine H. Kim, and Bridget Anderson, *Pilot 2006 Environmental Performance Index* (New Haven, 2006).

4 Note that the average Index score for the EPI is different from the average EPI score. The average EPI score across available Index countries is 57.8.

5 See http://www.yale.edu/epi/files/2008EPI_References.pdf.

2008 Environmental Performance Index

Esty et al. 2008

	SCALED DATA:											
	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	39.5	39.5	39.5	39.5	38	38	38	38	1.1	1.1	1.1	1.1
Benin	56.1	56.1	56.1	56.1	21	21	21	21	43.6	43.6	43.6	43.6
Botswana	68.7	68.7	68.7	68.7	9	9	9	9	75.9	75.9	75.9	75.9
Burkina Faso	44.3	44.3	44.3	44.3	34	34	34	34	13.5	13.5	13.5	13.5
Burundi	54.7	54.7	54.7	54.7	26	26	26	26	40.0	40.0	40.0	40.0
Cameroon	63.8	63.8	63.8	63.8	12	12	12	12	63.4	63.4	63.4	63.4
Cape Verde												
Central African Republic	56.1	56.1	56.1	56.1	22	22	22	22	43.5	43.5	43.5	43.5
Chad	45.9	45.9	45.9	45.9	33	33	33	33	17.5	17.5	17.5	17.5
Comoros												
Congo	69.7	69.7	69.7	69.7	5	5	5	5	78.5	78.5	78.5	78.5
Congo, Democratic Rep.	47.3	47.3	47.3	47.3	32	32	32	32	21.2	21.2	21.2	21.2
Cote d'Ivoire	65.2	65.2	65.2	65.2	10	10	10	10	67.0	67.0	67.0	67.0
Djibouti	50.5	50.5	50.5	50.5	30	30	30	30	29.4	29.4	29.4	29.4
Equatorial Guinea												
Eritrea	59.4	59.4	59.4	59.4	18	18	18	18	52.3	52.3	52.3	52.3
Ethiopia	58.8	58.8	58.8	58.8	19	19	19	19	50.7	50.7	50.7	50.7
Gabon	77.3	77.3	77.3	77.3	2	2	2	2	97.9	97.9	97.9	97.9
Gambia												
Ghana	70.8	70.8	70.8	70.8	3	3	3	3	81.3	81.3	81.3	81.3
Guinea	51.3	51.3	51.3	51.3	29	29	29	29	31.4	31.4	31.4	31.4
Guinea-Bissau	49.7	49.7	49.7	49.7	31	31	31	31	27.3	27.3	27.3	27.3
Kenya	69.0	69.0	69.0	69.0	7	7	7	7	76.8	76.8	76.8	76.8
Lesotho												
Liberia												
Madagascar	54.6	54.6	54.6	54.6	27	27	27	27	39.8	39.8	39.8	39.8
Malawi	59.9	59.9	59.9	59.9	17	17	17	17	53.4	53.4	53.4	53.4
Mali	44.3	44.3	44.3	44.3	35	35	35	35	13.5	13.5	13.5	13.5
Mauritania	44.2	44.2	44.2	44.2	36	36	36	36	13.2	13.2	13.2	13.2
Mauritius	78.1	78.1	78.1	78.1	1	1	1	1	100.0	100.0	100.0	100.0
Mozambique	53.9	53.9	53.9	53.9	28	28	28	28	38.1	38.1	38.1	38.1
Namibia	70.6	70.6	70.6	70.6	4	4	4	4	80.9	80.9	80.9	80.9
Niger	39.1	39.1	39.1	39.1	39	39	39	39	0.0	0.0	0.0	0.0
Nigeria	56.2	56.2	56.2	56.2	20	20	20	20	43.8	43.8	43.8	43.8
Rwanda	54.9	54.9	54.9	54.9	25	25	25	25	40.5	40.5	40.5	40.5
Sao Tome and Principe												
Senegal	62.8	62.8	62.8	62.8	13	13	13	13	60.9	60.9	60.9	60.9
Seychelles												
Sierra Leone	40.0	40.0	40.0	40.0	37	37	37	37	2.5	2.5	2.5	2.5
Somalia												
South Africa	69.0	69.0	69.0	69.0	8	8	8	8	76.7	76.7	76.7	76.7
Sudan	55.5	55.5	55.5	55.5	23	23	23	23	42.2	42.2	42.2	42.2
Swaziland	61.3	61.3	61.3	61.3	16	16	16	16	57.1	57.1	57.1	57.1
Tanzania	63.9	63.9	63.9	63.9	11	11	11	11	63.6	63.6	63.6	63.6
Togo	62.3	62.3	62.3	62.3	14	14	14	14	59.6	59.6	59.6	59.6
Uganda	61.6	61.6	61.6	61.6	15	15	15	15	57.7	57.7	57.7	57.7
Zambia	55.1	55.1	55.1	55.1	24	24	24	24	41.2	41.2	41.2	41.2
Zimbabwe	69.3	69.3	69.3	69.3	6	6	6	6	77.4	77.4	77.4	77.4

V - HUMAN DEVELOPMENT

Governments are charged by their constituents with supplying the political good of effective human development. Everywhere citizens have rights to educational opportunity, health care and medical and sanitary services, and poverty mitigation and alleviation. These opportunities might be provided in a variety of ways—directly by the state in some countries, or by state-regulated agencies in others. However, regardless of the *means* by which these opportunities are provided, governments have a responsibility to provide for minimal standards in terms of *outcomes*.

The Index of African Governance Category for Human Development focuses on twenty-one sub-sub-categories (indicators), within three sub-categories: poverty, health and sanitation, and educational opportunity. Each of the sub-categories is weighted equally in the overall score for Human Development.

A number of other projects and indices focus on human development. One of the best known and most successful is the UNDP's Human Development Index (HDI). The HDI comprises four indicators in three areas: life expectancy; educational attainment measured in terms of adult literacy and combined primary, secondary, and tertiary enrollment rates; and GDP per capita. However, the Index of African Governance does not employ the HDI directly because the HDI does not provide a detailed enough picture of variation in human development outcomes for our purposes. In addition, because three of the components of the HDI are already included in our Index, employing it for our Index would double count life expectancy, literacy, and GDP per capita.

Governance outcomes measured in any single year are always affected by a wide variety of factors beyond a government's policies in that year. This fact is especially clear in the Human Development Category. For instance, we should expect to see a time lag between the implementation of reforms in primary schools and changes in adult literacy rates. In addition, disparities in health, education, and poverty are closely related to disparities in national income levels.

What to do about such challenges is a question open to debate. Some experts argue that assessments of governance like ours should attempt to estimate the portion of human development outcomes that is due to the current government's actions. We argue (along with other experts) that such estimates can be highly problematic. Thus, we present the real data on outcomes as they are, in as transparent a manner as possible. Further analysis can then be based on the real data that we have assembled. Focusing on one or a set of countries, for instance, public health experts might investigate the relationship between specific policy initiatives and changes in life expectancy, maternal mortality, or child mortality. Focusing on a broader swath of countries, econometricians might estimate latent performance attributes from conditional cross-national comparisons.

Human Development in the Index of African Governance thus comprises:

Poverty

1. *What percent of people live on less than \$1 per person per day* (the international poverty line)?
2. *What percent of people are below their own national poverty line?* The national poverty line is based on each country's

assessment of the minimum income needed to satisfy basic needs. It may be higher or lower than the international poverty line.

3. *How equal or unequal is the national distribution of income?* This figure is represented by the *Gini Index*, which measures the extent to which the income distribution deviates from a perfectly equal distribution.

Our data for each of these sub-sub-categories (indicators) are drawn primarily from two standard international sources, the OECD and African Development Bank's *African Economic Outlook 2007/2008* and the World Bank's World Development Indicators (WDI) 2007 and 2008.¹ We supplement these figures with additional data from our own country research, Poverty Reduction Strategy Papers for selected countries, and several other sources, as detailed in the description to these three indicators.

We present the best currently available data for these indicators. Three points should be noted about these data: First, ideally we would use data adjusted for purchasing power differences. However, such data are not currently available.² Second, in general, these data are based ultimately on household surveys, which are undertaken by national statistical agencies and other organizations only at intervals. Thus, although we use the most up-to-date standard figure available in each case, our figures may be a number of years out-of-date. It is generally believed that these figures do not change significantly from year to year. Similar figures are also used by other studies, such as the UNDP's *Human Development Report*.³ Third, as the descriptive note to these indicators suggests, there is considerable unexplained variation in available standard estimates for some countries. Such variation suggests major problems with the data that the international community currently uses; much more work needs to be done in this important area.

Health and Sanitation

1. *Life expectancy at birth*, expressed in years, from the WDI 2008, based on various sources, including census reports, data from national statistical offices, and the UN Population Division's *World Population Prospects*.
2. *Child mortality per 1,000 live births*, based on new research published in *The Lancet* by Christopher Murray, Thomas Laasko, Kenji Shibuya, Kenneth Hill, and Alan D. Lopez ("Can We Achieve Millennium Development Goal 4? New Analysis of Country Trends and Forecasts of Under-5 Mortality to 2015," *The Lancet*, CCCLXX [22 September 2007], 1040–1054). Data are available on the Institute for Health Metrics and Evaluation (IHME) website.
3. *Maternal mortality rate per 100,000 live births*. Estimates are based on WHO, UNICEF, UNFPA, and the World Bank (prepared by Lale Say and Mie Inoue of WHO, and Samuel Mills and Emi Suzuki of the World Bank), *Maternal Mortality in 2005: Estimates Developed by WHO, UNICEF, UNFPA, and The World Bank* (Geneva, 2007), as reported in the WDI 2008.
4. *The prevalence of undernourishment in the total population*, a measure of *food security*, estimated by the Food and Agriculture Organization (FAO), as reported in the World Bank's WDI 2008.
5. *Percentage of children (aged 12–23 months) immunized against measles*, according to the World Health Organization (WHO) and United Nations Children's Fund (UNICEF), as reported in the WDI 2008.
6. *Percentage of children (aged 12–23 months) immunized against diphtheria, pertussis (whooping cough), and tetanus (DPT)*, according to the WHO and UNICEF, as reported in the WDI 2008.
7. *Percentage of people (aged 15–49 years) living with HIV*, based on UNAIDS and the WHO's *Report on the Global AIDS*

1 The WDI 2008 for these indicators and other human development indicators was last accessed in mid to late July 2008 as detailed in the descriptive notes for each indicator. Data reflect the numbers current as of this date.

2 The International Comparison Program is working on these estimates.

3 It is not unusual for poverty and inequality numbers, even in developed countries, to be over a decade out of date. For instance, the 2006 *Human Development Report* uses 1994 figures for Australia, 1993 figures for Japan, 1999 figures for the UK, and 2000 figures for the U.S. Additionally, when the World Bank reported revised poverty estimates for the world in late August 2008, it offered data current only as recent as 2005.

Epidemic, as reported in the WDI 2008.

8. *Estimated number of new TB cases (incidence) per 100,000 people*, from the WHO's *Global Tuberculosis Control Report*, as reported in the WDI 2008.

9. *Access to qualified physicians: physicians per 100,000 people*, from the WHO Statistical Information System.

10. *Access to trained nurses: nursing and midwifery personnel per 100,000 people*, from the WHO Statistical Information System.

11. *Percentage of the population with access to potable water*, from the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation.

Educational Opportunity

1. *Adult literacy*, according to the United Nations Educational, Scientific and Cultural Organization (UNESCO) Institute of Statistics (UIS).

2. *Adult literacy among women*, according to UIS.

3. *Primary school completion rate* (the percentage of school-aged children who complete the last year of primary school), from UNESCO as reported in the WDI 2008.

4. *Primary school completion rate among girls*, from UNESCO as reported in the WDI 2008.

5. *Pupil to teacher ratio in primary schools* (employed as a measure of the quality of education), from UNESCO as reported in the WDI 2008.

6. *Educational persistence*, or the percentage of all students who progress from primary to secondary school, from UNESCO as reported in the WDI 2008.

7. *Ratio of female to male students in primary and secondary schools*, from UNESCO as reported in the WDI 2008.

Other Indicators

The Index of African Governance team also researched a number of other important indicators, which are not included in the Index:

Although a measure of tertiary education would have been ideal, we judged the information available to be insufficient for our purposes at this time. There were not only missing data for many countries, but it was also unclear that figures were sufficiently comparable across countries given the different types of tertiary educational institutions and the enrollment of foreign students at some institutions. We include in this category our researcher's report on tertiary education, which presents the available data.

In the area of health, an indicator related to malarial incidence or morbidity was considered, but we also judged the available current data to be insufficient for our purposes.

We further considered shortening the list of health-related outcomes by substituting for several a more comprehensive measure such as the WHO's Health-Adjusted Life Expectancy (HALE). HALE is an indicator of the equivalent number of years a person is expected to live in "full health," taking into account life expectancy, adult and child mortality, and the burden of disease (incidence, prevalence, and duration and years lived with disability due to over 100 major causes). This indicator, however, is not updated regularly enough to track progress over time; it is only available for 2003.

Finally, we sought to include additional indicators of educational opportunity that would emphasize the quality of education, such as the percentage of trained or certified teachers. These data, too, were available only for a small portion of the African countries for the years required.

For Further Reading

A handful of the many sources for further reading include:

- Sanjeev Gupta and Marijn Verhoeven, "The Efficiency of Government Expenditure: Experiences from Africa," *Journal of Policy Modeling*, XXIII (2001), 433–467.
- International Monetary Fund, Poverty Reduction Strategy Papers (PRSP). A country by country compendium of PRSPs is available at <http://www.imf.org/external/NP/prsp/prsp.asp>.
- Dean T. Jamison, Joel G. Breman, Anthony R. Measham, George Alleyne, Mariam Claeson, David B. Evans, Prabhat Jha, Anne Mills, and Philip Musgove (eds.), *Disease Control Priorities in Developing Countries* (Washington, D.C., 2006).
- Dean T. Jamison and Martin E. Sandbu, "WHO Ranking of Health System Performance," *Science*, CCXCIII (2001), 1595–1596.
- Dean T. Jamison, Richard G. Feachem, Malegapuru W. Makgoba, Eduard R. Bos, Florence K. Baingana, Karen J. Hofman, and Khama O. Rogo (eds.), *Disease and Mortality in Sub-Saharan Africa* (Washington, D.C., 2006).
- N. Kakwani, "Performance in Living Standards: An International Comparison," *Journal of Development Economics*, XLI (1993), 307–336.
- Massoud Karshenas, "Global Poverty: National Accounts Based versus Global Based Estimates," *Development and Change*, XXXIV (2003), 683–712.
- Mark McGillivray (ed.), *Human Well-Being: Concept and Measurement* (New York, 2007).
- Jo Mulligan, John Appleby, and Anthony Harrison, "Measuring the Performance of Health Systems: Indicators Still Fail to Take Socioeconomic Factors into Account," *British Medical Journal*, CCCXXI (2000), 191–192.
- OECD, *OECD Handbook for Internationally Comparative Education Statistics: Concepts, Standards, Definitions and Classifications* (Paris, 2004).
- Martin Ravallion, "What Can We Learn about Country Performance from Conditional Comparisons across Countries?" World Bank Policy Research Working Paper 2342, Development Research Group, Poverty and Human Resources (Washington, D.C., 2000).
- Richard Rose, *Comparing Welfare Across Time and Space: Measuring Development, Setting Standards and Transnational Learning*, Eurosocial Report 49 (Vienna, 1994).
- Amartya Sen, "Public Action and the Quality of Life in Developing Countries," *Oxford Bulletin of Economics and Statistics*, XLIII (1981), 287–319.
- Social Watch, "Basic Capabilities Index," available at www.socialwatch.org/en/avancesyRetrosesos/ICB/BCI.htm.
- Cynthia Stanton, Nouredine Abderrahim, Kenneth Hill, "DHS Maternal Mortality Indicators: An Assessment of Data Quality and Implications for Data Use," Demographic and Health Surveys Analytical Report No. 4 (Calverton, MD, 1997).
- UNESCO Institute for Statistics, *Education Indicators: Technical Guidelines*, available at http://www.uis.unesco.org/ev.php?ID=5202_201&ID2=DO_TOPIC.
- Jan Vandemoortele, "The MDGs: 'M' for Misunderstood?" *WIDER Angle*, I (2007), 6–7. (*WIDER Angle* is the newsletter of UNU-WIDER, the World Institute for Development Economics Research.)

World Bank and International Monetary Fund, *Global Monitoring Report 2007 Millennium Development Goals: Confronting the Challenges of Gender Equality and Fragile States* (Washington, D.C., 2007).

World Bank, PovertyNet Library, available at <http://povlibrary.worldbank.org/>.

World Health Organization, *The World Health Report 2000, Health Systems: Improving Performance* (Geneva, 2000).

Human Development Rankings

Listed by 2006 Score

1	Mauritius	89.9
2	Seychelles	88.4
3	South Africa	68.7
4	Botswana	68.0
5	Gabon	67.8
6	Kenya	64.5
7	Ghana	64.3
8	Cape Verde	62.6
9	Namibia	61.6
10	Sao Tome and Principe	61.1
11	Malawi	59.7
12	Sudan	58.0
13	Uganda	57.4
14	Congo	57.1
15	Cameroon	56.5
16	Mauritania	56.5
17	Tanzania	56.4
18	Benin	56.2
19	Senegal	54.9
20	Togo	54.4
21	Djibouti	54.0
22	Lesotho	53.7
23	Ethiopia	52.7
24	Gambia	52.2
25	Zimbabwe	51.7
26	Cote d'Ivoire	51.6
27	Comoros	51.5
28	Guinea	50.0
29	Swaziland	49.2
30	Eritrea	48.8
31	Burkina Faso	48.4
32	Nigeria	45.9
33	Mali	45.8
34	Guinea-Bissau	45.8
35	Madagascar	44.3
36	Rwanda	43.6
37	Zambia	43.5
38	Burundi	43.3
39	Mozambique	41.7
40	Equatorial Guinea	36.0
41	Angola	34.4
42	Central African Republic	33.2
43	Liberia	33.2
44	Niger	32.5
45	Sierra Leone	31.8
46	Congo, Democratic Republic	30.7
47	Chad	22.5
48	Somalia*	15.2

* There is insufficient information available about Somalia to calculate a meaningful score. Note also that other countries are calculated with missing values, as shown in the data sheets.

Human Development Rankings

Listed by 2000 Score		Listed by 2002 Score		Listed by 2005 Score		
1	Seychelles	88.4	Seychelles	88.6	Mauritius	89.9
2	Mauritius	88.2	Mauritius	88.4	Seychelles	88.4
3	Gabon	67.2	South Africa	67.8	South Africa	68.3
4	Botswana	67.1	Botswana	67.3	Gabon	67.8
5	South Africa	67.0	Gabon	67.3	Botswana	67.7
6	Kenya	64.0	Cape Verde	63.6	Ghana	64.1
7	Cape Verde	63.3	Kenya	63.4	Kenya	63.9
8	Namibia	63.2	Namibia	62.6	Namibia	62.4
9	Ghana	61.4	Ghana	61.8	Cape Verde	61.2
10	Malawi	56.9	Malawi	57.8	Sao Tome and Principe	61.0
11	Sao Tome and Principe	55.4	Sao Tome and Principe	57.8	Malawi	59.1
12	Sudan	55.4	Mauritania	56.4	Sudan	58.1
13	Mauritania	53.3	Sudan	55.8	Uganda	57.0
14	Uganda	53.0	Uganda	55.2	Mauritania	56.5
15	Cameroon	52.0	Cameroon	53.4	Cameroon	56.1
16	Tanzania	51.8	Congo	52.2	Benin	55.9
17	Congo	51.4	Tanzania	52.1	Senegal	54.4
18	Lesotho	51.1	Togo	51.6	Tanzania	53.9
19	Togo	51.0	Lesotho	51.1	Togo	53.7
20	Swaziland	50.7	Comoros	50.8	Congo	53.4
21	Benin	50.7	Benin	50.6	Djibouti	53.2
22	Cote d'Ivoire	50.6	Swaziland	50.0	Comoros	52.3
23	Zimbabwe	50.1	Djibouti	50.0	Lesotho	51.7
24	Comoros	49.3	Senegal	49.6	Zimbabwe	51.2
25	Djibouti	49.2	Cote d'Ivoire	49.5	Gambia	51.0
26	Gambia	48.0	Zimbabwe	48.2	Ethiopia	51.0
27	Senegal	47.7	Gambia	48.1	Cote d'Ivoire	49.8
28	Ethiopia	46.7	Ethiopia	48.0	Swaziland	49.5
29	Eritrea	46.5	Eritrea	46.5	Eritrea	49.1
30	Guinea-Bissau	44.6	Burkina Faso	44.2	Guinea	48.7
31	Burkina Faso	42.6	Guinea-Bissau	43.5	Burkina Faso	47.7
32	Nigeria	42.5	Guinea	42.9	Guinea-Bissau	46.3
33	Guinea	41.8	Nigeria	42.8	Nigeria	45.7
34	Madagascar	40.8	Mali	41.8	Mali	45.1
35	Burundi	40.1	Madagascar	41.1	Madagascar	43.9
36	Zambia	40.1	Burundi	40.6	Rwanda	43.1
37	Rwanda	40.0	Rwanda	40.5	Burundi	43.0
38	Mali	38.2	Zambia	40.4	Zambia	42.5
39	Mozambique	36.6	Mozambique	38.4	Mozambique	41.5
40	Equatorial Guinea	35.8	Angola	35.1	Equatorial Guinea	35.9
41	Angola	33.2	Equatorial Guinea	34.4	Angola	34.4
42	Central African Republic	32.0	Central African Republic	31.9	Central African Republic	33.2
43	Congo, Democratic Republic	29.7	Niger	28.4	Liberia	32.8
44	Liberia	27.0	Congo, Democratic Republic	28.3	Niger	31.7
45	Niger	26.9	Liberia	27.1	Sierra Leone	31.7
46	Sierra Leone	24.5	Sierra Leone	25.8	Congo, Democratic Republic	30.4
47	Chad	20.5	Chad	22.0	Chad	22.5
48	Somalia*	14.7	Somalia*	15.7	Somalia*	15.1

* There is insufficient information available about Somalia to calculate a meaningful score. Note also that other countries are calculated with missing values, as shown in the data sheets.

Human Development—Category Scores Listed by Country “A” to “Z”

	2000	2002	2005	2006
Angola	33.2	35.1	34.4	34.4
Benin	50.7	50.6	55.9	56.2
Botswana	67.1	67.3	67.7	68.0
Burkina Faso	42.6	44.2	47.7	48.4
Burundi	40.1	40.6	43.0	43.3
Cameroon	52.0	53.4	56.1	56.5
Cape Verde	63.3	63.6	61.2	62.6
Central African Republic	32.0	31.9	33.2	33.2
Chad	20.5	22.0	22.5	22.5
Comoros	49.3	50.8	52.3	51.5
Congo	51.4	52.2	53.4	57.1
Congo, Democratic Rep.	29.7	28.3	30.4	30.7
Cote d’Ivoire	50.6	49.5	49.8	51.6
Djibouti	49.2	50.0	53.2	54.0
Equatorial Guinea	35.8	34.4	35.9	36.0
Eritrea	46.5	46.5	49.1	48.8
Ethiopia	46.7	48.0	51.0	52.7
Gabon	67.2	67.3	67.8	67.8
Gambia	48.0	48.1	51.0	52.2
Ghana	61.4	61.8	64.1	64.3
Guinea	41.8	42.9	48.7	50.0
Guinea-Bissau	44.6	43.5	46.3	45.8
Kenya	64.0	63.4	63.9	64.5
Lesotho	51.1	51.1	51.7	53.7
Liberia	27.0	27.1	32.8	33.2
Madagascar	40.8	41.1	43.9	44.3
Malawi	56.9	57.8	59.1	59.7
Mali	38.2	41.8	45.1	45.8
Mauritania	53.3	56.4	56.5	56.5
Mauritius	88.2	88.4	89.9	89.9
Mozambique	36.6	38.4	41.5	41.7
Namibia	63.2	62.6	62.4	61.6
Niger	26.9	28.4	31.7	32.5
Nigeria	42.5	42.8	45.7	45.9
Rwanda	40.0	40.5	43.1	43.6
Sao Tome and Principe	55.4	57.8	61.0	61.1
Senegal	47.7	49.6	54.4	54.9
Seychelles	88.4	88.6	88.4	88.4
Sierra Leone	24.5	25.8	31.7	31.8
Somalia*	14.7	15.7	15.1	15.2
South Africa	67.0	67.8	68.3	68.7
Sudan	55.4	55.8	58.1	58.0
Swaziland	50.7	50.0	49.5	49.2
Tanzania	51.8	52.1	53.9	56.4
Togo	51.0	51.6	53.7	54.4
Uganda	53.0	55.2	57.0	57.4
Zambia	40.1	40.4	42.5	43.5
Zimbabwe	50.1	48.2	51.2	51.7

* There is insufficient information available about Somalia to calculate a meaningful score. Note also that other countries are calculated with missing values, as shown in the data sheets.

Human Development—Rank Listed by Country “A” to “Z”

	2000	2002	2005	2006
Angola	41	40	41	41
Benin	21	21	16	18
Botswana	4	4	5	4
Burkina Faso	31	30	31	31
Burundi	35	36	37	38
Cameroon	15	15	15	15
Cape Verde	7	6	9	8
Central African Republic	42	42	42	42
Chad	47	47	47	47
Comoros	24	20	22	27
Congo	17	16	20	14
Congo, Democratic Rep.	43	44	46	46
Cote d'Ivoire	22	25	27	26
Djibouti	25	23	21	21
Equatorial Guinea	40	41	40	40
Eritrea	29	29	29	30
Ethiopia	28	28	26	23
Gabon	3	5	4	5
Gambia	26	27	25	24
Ghana	9	9	6	7
Guinea	33	32	30	28
Guinea-Bissau	30	31	32	34
Kenya	6	7	7	6
Lesotho	18	19	23	22
Liberia	44	45	43	43
Madagascar	34	35	35	35
Malawi	10	10	11	11
Mali	38	34	34	33
Mauritania	13	12	14	16
Mauritius	2	2	1	1
Mozambique	39	39	39	39
Namibia	8	8	8	9
Niger	45	43	44	44
Nigeria	32	33	33	32
Rwanda	37	37	36	36
Sao Tome and Principe	11	11	10	10
Senegal	27	24	17	19
Seychelles	1	1	2	2
Sierra Leone	46	46	45	45
Somalia*	48	48	48	48
South Africa	5	3	3	3
Sudan	12	13	12	12
Swaziland	20	22	28	29
Tanzania	16	17	18	17
Togo	19	18	19	20
Uganda	14	14	13	13
Zambia	36	38	38	37
Zimbabwe	23	26	24	25

* There is insufficient information available about Somalia to calculate a meaningful score. Note also that other countries are calculated with missing values, as shown in the data sheets.

Human Development Summary of Indicators and Principal Sources

Sub-Category 1: Poverty		
1	Percent of people who live on less than \$1 per day	Based on the OECD and African Development Bank's <i>African Economic Outlook 2007/2008</i> and the World Bank's World Development Indicators (WDI) 2007 and 2008 and supplemented with data from our own country research ¹
2	Percent of people who live below the national poverty line	
3	Income inequality, measured with the Gini Index	
Sub-Category 2: Health and Sanitation		
4	Life expectancy at birth (years)	World Bank's World Development Indicators 2008 (staff estimates based on various sources)
5	Child mortality per 1,000 live births	From the Institute for Health Metrics and Evaluation (IHME), based on Christopher Murray, Thomas Laasko, Kenji Shibuya, Kenneth Hill, and Alan D. Lopez ("Can We Achieve Millennium Development Goal 4? New Analysis of Country Trends and Forecasts of Under-5 Mortality to 2015," <i>The Lancet</i> , CCCLXX [22 September 2007], 1040–1054.)
6	Maternal mortality rate per 100,000 live births	WHO, UNICEF, UNFPA, and The World Bank (prepared by Lale Say and Mie Inoue of WHO, and Samuel Mills and Emi Suzuki of The World Bank), <i>Maternal Mortality in 2005: Estimates Developed by WHO, UNICEF, UNFPA, and The World Bank</i> (Geneva, 2007), as reported in the WDI 2008
7	Food security, assessed in terms of the prevalence of undernourishment in the total population	FAO Statistics Division, as reported in the WDI 2008
8	Percentage of children (aged 12–23 months) immunized against measles	WHO and UNICEF, as reported in the WDI 2008
9	Percentage of children (aged 12–23 months) immunized against diphtheria, pertussis (whooping cough), and tetanus (DPT)	
10	Percentage of people (aged 15–49 years) living with HIV, from the MDG Indicators.	UNAIDS and the WHO's <i>Report on the Global AIDS Epidemic</i> , as reported in the WDI 2008 ²
11	Estimated number of new TB cases (incidence) per 100,000 people	WHO's <i>Global Tuberculosis Control Report</i> , as reported in the WDI 2008
12	Physicians per 100,000 people	WHO Statistical Information System 2008
13	Nursing and midwifery personnel per 100,000 people	
14	Percentage of the population with access to potable water	WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation

¹ WDI 2007 was used only for \$1 per day poverty, which was not reported in the WDI 2008 (last accessed 26 July 2008).

² Last accessed 14 July 2008.

Sub-Category 3: Educational Opportunity		
15	Adult literacy rate	United Nations Educational, Scientific and Cultural Organization (UNESCO) Institute of Statistics (UIS)
16	Adult literacy rate among women	
17	Primary school completion rate (the percentage of school-aged children who complete the last year of primary school)	UNESCO, as reported in the WDI 2008
18	Primary school completion rate among girls	
19	Pupil to teacher ratio in primary schools (employed as a measure of the quality of education)	
20	Persistence, assessed as the percentage of all students who continue from primary to secondary school	
21	Ratio of female to male students in primary and secondary schools	

Human Development

	Indicator	ANG	BEN	BOT	BFO	BUR	CAM	CV	CAR	CHD	COM	CON	DRC	CdI	DJI	EQG	ERI	ETH	GAB	GAM	GHA	
a) Poverty	Poverty Rate at \$1 per person per day		30.9	23.4	27.2	47.7	17.1		50.2					14.8			23		59.3		44.8	
	Poverty Rate at National Poverty Line	68	36.8	30.3	46.4	36.2	40.2	36.7	67.2	64	44.8	50.1	71.3	38.4	42.1	76.8	50	44.2	33	57.9	28.5	
	Inequality (GINI Index)	62	36.5	57.3	39.5	50	44.6	59	42		55.7	41.6		44.6	38.6			30	42.1	48.4	41	
b) Health and Sanitation	Life Expectancy at Birth (years)	42.4	56.2	49.8	51.9	49.1	50.3	71.0	44.4	50.6	63.2	54.8	46.1	48.1	54.5	51.1	57.3	52.5	56.7	59.1	59.7	
	Child Mortality per 1,000	241.6	130.8	38.8	165.8	189.8	126.5	32.8	148.2	178.4	55.1	123.0	218.9	112.4		209.4	67.2	117.3	74.9	99.4	90.7	
	Maternal Mortality (per 100,000 live births)	1400	840	380	700	1100	1000	210	980	1500	400	740	1100	810	650	680	450	720	520	690	560	
	Undernourishment (% of population)	35	12	32	15	66	26		44	35	60	33	74	13	24			75	46	5	29	11
	Immunization, measles	48	89	90	88	75	73	65	35	23	66	66	73	73	67	51	95	63	55	95	85	
	Immunization, DPT	44	93	97	95	74	81	72	40	20	69	79	77	77	72	33	97	72	38	95	84	
	HIV Prevalence	3.7	1.8	24.1	2.0	3.3	5.4		10.7	3.5	0.1	5.3	3.2	7.1	3.1	3.2	2.4	1.4	7.9	2.4	2.3	
	Incidence of Tuberculosis	285.3	89.9	550.5	248.5	366.9	191.6	168.4	345.0	298.6	43.8	403.0	391.6	420.4	809.0	255.8	93.8	378.1	353.6	257.3	202.9	
	Physicians per 100,000 People	7.5	3.8	39.4	5.2	2.6	17.9	46.7	8.0	3.5	19.6	21.4	10.2	11.4	17.4	32.4	4.9	2.7	31.1	10.2	14.7	
	Nursing and Midwifery Personnel	121.4	70.4	261.9	48.5	17.8	149.6	82.8	39.1	25.5	100.0	104.0	50.6	55.7	37.5	57.3	57.5	21.8	533.6	123.4	89.3	
Access to Drinking Water	53	67	95	61	79	66	80	75	42	86	58	46	84	73	43	60	22	88	82	75		
c) Education	Adult Literacy Rate	67.4	39.7	82.1	26	59.3	67.9	83	48.6	25.7	74.2	86	67.2	48.7	70.3	87	60.5	35.9	85.4	38	64.2	
	Adult Literacy Rate, Female	54.2	27.1	82.2	17.9	52.2	59.8	77.8	33.5	12.8	68.8	80.7	54.1	38.6		80.5		22.8	81.3		57.2	
	Primary School Completion Rate		64.7	95.2	31.3	36.3	57.6	92.3	24.3	31.2	50.5	73.2	38.5	42.8	35.5	58.2	48.4	48.6	74.7	63.0	70.7	
	Primary Completion Rate, Female		51.3	115.4	27.5	32.4	50.5	95.0	18.0	21.1	49.1	69.4	30.8	32.5	31.6	56.6	41.2	42.4	76.2	63.6	67.8	
	Pupil-Teacher Ratio, Primary		46.8	25.3	45.8	54.2	44.1	25.4		63.2	35.0	54.8	34.3	46.1	33.6	32.0	47.2	59.0	36.0	35.2	35.4	
	Progression to Secondary School (%)		51.1	95.1	44.4	34.3	44.7	83.8	48.1	51.3	63.2	58.1			73.1		82.7	91.2			86.8	
	Ratio of Girls to Boys in School	85.2	73.5	100.3	79.9	88.6	83.7	99.3		61.0	84.2	90.2	73.2	68.4	75.8	82.5	72.0	80.5	95.8	101.8	93.9	

*Note: See indicator descriptions for sources and additional information. Numbers in italics are estimates.

Summary of “Raw” Data—2006

	GUI GNB	KEN LES	LIB MAD	MAW MLI	MAU MAS	MZM NAM	NIR NIG	RWA STP	SEN SEY	SIE SOM	SAF SUD	SWA TAZ	TOG UGA	ZAM ZIM
	21.6	22.8	76.2 74	20.8 36.1	25.9 1	36.2 32.8	63.8 70.8	57	17	57	10.7	47.7 57.8	31.5	63.8 61.9
	49.2 65.7	45.9 56.6	76.2 67.5	45 47.5	46.3 8	54.1 28	70 54.4	56.9 53.8	53.9	70.2	43.2 40	69.2 35.7	61.7 37.7	68 68
	38.6 36	42.5 52	47.5	39 40.1	39 38.9	42 60	41.5 50.6	51 49	41.3 39.4	62.9	57.8	50.4 38.2	33.5 41.2	51 50.1
	55.5 46.2	53.4 42.9	45.3 59.0	47.6 53.8	63.7 73.2	42.5 52.5	56.4 46.8	45.6 65.2	62.8 72.2	42.2 47.7	50.7 58.1	40.8 51.9	58.2 50.7	41.7 42.7
	131.1 189.0	95.4 77.6	170.8 93.1	129.9 187.7	97.2 13.3	169.4 46.2	205.3 193.1	167.1 131.6	101.4	251.5 219.8	68.7 93.0	79.0 119.3	107.5 134.1	163.6 66.3
	910 1100	560 960	1200 510	1100 970	820 15	520 210	1800 1100	1300	980	2100 1400	400 450	390 950	510 550	830 880
	24 39	31 13	50 38	35 29	10 5	44 24	32 9	33 10	20 9	51	2.5 26	22 44	24 19	46 47
	67 60	77 85	94 59	85 86	62 99	77 63	47 62	95 85	80 99	67 35	85 73	57 93	83 89	84 90
	71 77	80 83	88 61	99 85	68 97	72 74	39 54	99 99	89 99	64 35	99 78	68 90	87 80	80 90
	1.5 3.8	6.1 23.2	0.5	14.1 1.7	0.7 0.6	16.1 19.6	1.1 3.9	3.0	0.7	1.6 0.9	18.8 1.6	33.4 6.5	3.2 6.4	17.0 20.1
	264.9 218.9	384.5 635.1	331.3 247.8	377.1 279.6	316.3 22.7	442.7 766.6	173.6 310.6	396.9 102.8	270.4 32.9	517.0 218.4	940.2 242.2	1155.3 312.1	388.8 354.7	552.6 557.3
	11.2 12.1	13.7 4.6	3.1 28.7	2.1 9.3	10.9 105.6	2.6 30.0	2.3 25.9	4.8 54.0	5.2 146.7	3.1 4.8	75.1 29.4	15.3 2.3	3.7 7.9	11.2 16.0
	49.9 69.2	112.8 57.6	30.9 31.2	56.3 74.0	65.7 373.3	30.8 308.2	22.0 156.2	40.3 205.2	28.7 768.5	46.6 23.1	398.0 88.5	609.7 37.3	31.9 67.7	195.3 71.8
	50 59	61 79	61 46	73 50	53 100	43 87	46 48	74 79	76 88	57 29	88 70	62 62	52 60	58 81
	29.5 62.8	73.6 82.2	54.4 70.7	70.9 22.9	55.2 87	43.8 87.6	29.8 71	64.9 87.5	42 91.8	37.1 17.1	87.6 60.9	79.6 72	53.2 72.6	68 90.7
	18.1 52.4	70.2 90.3	49.2 65.3	63.3 15.6	47.5 84.1	32 86.9	15.8 62.8	59.8 81.9	31.5 92.3	25.7	86.7 51.8	78.3 65.2	38.5 64.1	59.8 87.6
	63.7 26.9	92.6 78.3	63.4 56.9	55.1 49.4	47.1 92.3	41.8 76.4	32.8 75.6	35.5 74.2	48.7 114.9	80.8	100.2 46.9	66.7 74.3	67.2 54.4	84.0 81.0
	53.4 19.3	91.6 92.1	57.5 56.7	55.1 39.8	47.1 94.1	34.6 80.3	26.1 67.8	34.9 76.3	46.6 117.5	69.8	100.0 43.4	69.1 73.2	56.2 51.5	79.0 79.5
	44.5 44.1	39.5 40.4	19.3 48.1	55.6	41.4 21.7	67.4 30.8	40.0 37.2	65.9 30.8	39.0 13.7	44.2	35.6 34.3	32.9 52.4	37.6 49.1	51.2 38.6
	71.2	65.9	54.8	72.5 57.1	48.0 66.7	53.9 74.6	60.2	55.9	50.2 94.9		89.7 96.7	88.3 46.1	65.2 42.9	53.9
	74.4 65.0	95.8 103.9	72.7 96.0	100.0 74.4	101.5 103.0	84.7 103.8	70.5 83.0	101.9 99.0	90.8 100.3	86.3 55.0	100.0 89.3	94.7 98.9	73.4 97.6	95.9 96.3

Human Development Summary of Index

	Indicator	ANG	BEN	BOT	BFO	BUR	CAM	CV	CAR	CHD	COM	CON	DRC	CdI	DJI	EQG	ERI	ETH	GAB	GAM	GHA
a) Poverty	\$1/pers./day		60.2	70.2	65.2	37.9	78.6		34.6					81.6			70.7		22.5		41.8
	Nat. Pov. Line	12.8	58.1	67.6	44.2	59.0	53.2	58.3	14.0	18.6	46.5	38.8	8.0	55.8	50.4	0.0	39.0	47.4	63.7	27.5	70.2
	Inequality	2.7	80.2	17.0	71.1	39.2	55.6	11.9	63.5		21.9	64.7		55.6	73.9		100.0		63.2	44.1	66.6
b) Health and Sanitation	Life Expect.	9.4	50.1	31.3	37.4	29.1	32.7	93.6	15.4	33.7	70.8	46.0	20.5	26.3	45.1	35.1	53.4	39.2	51.7	58.8	60.4
	Child Mort.	8.9	53.1	89.8	39.1	29.5	54.8	92.2	46.1	34.1	83.3	56.2	17.9	60.4		21.7	78.5	58.5	75.4	65.6	69.1
	Matern. Mort.	33.6	60.4	82.5	67.1	48.0	52.8	90.6	53.7	28.8	81.5	65.2	48.0	61.9	69.5	68.1	79.1	66.2	75.8	67.6	73.9
	Undernourmt	55.2	86.9	59.3	82.8	12.4	67.6		42.8	55.2	20.7	57.9	1.4	85.5	70.3		0.0	40.0	96.6	63.4	88.3
	Imm., Measles	32.9	86.8	88.2	85.5	68.4	65.8	55.3	15.8	0.0	56.6	56.6	65.8	65.8	57.9	36.8	94.7	52.6	42.1	94.7	81.6
	Imm., DPT	30.4	92.4	97.5	94.9	68.4	77.2	65.8	25.3	0.0	62.0	74.7	72.2	72.2	65.8	16.5	97.5	65.8	22.8	94.9	81.0
	HIV Prev.	89.2	94.9	27.9	94.3	90.5	84.0		68.1	89.7	100.0	84.5	90.6	79.1	91.0	90.7	93.2	96.1	76.6	93.0	93.5
	TB Incidence	76.8	94.1	53.4	80.1	69.6	85.1	87.1	71.5	75.6	98.1	66.4	67.4	64.9	30.6	79.4	93.7	68.6	70.8	79.3	84.1
	Physicians	3.7	1.2	25.8	2.2	0.4	11.0	30.8	4.1	1.0	12.1	13.4	5.7	6.4	10.6	20.9	2.0	0.4	20.1	5.7	8.7
	Nurses	13.8	7.0	32.5	4.1	0.0	17.6	8.7	2.8	1.0	10.9	11.5	4.4	5.0	2.6	5.3	5.3	0.5	68.7	14.1	9.5
	Water	39.7	57.7	93.6	50.0	73.1	56.4	74.4	67.9	25.6	82.1	46.2	30.8	79.5	65.4	26.9	48.7	0.0	84.6	76.9	67.9
c) Education	Literacy	67.3	30.3	87.0	11.9	56.5	68.0	88.2	42.2	11.5	76.4	92.2	67.1	42.3	71.2	93.6	58.1	25.2	91.4	28.0	63.1
	Literacy, Fem.	54.0	21.4	87.8	10.3	51.6	60.8	82.5	29.1	4.1	71.7	86.0	53.9	35.2		85.8		16.2	86.7		57.7
	Primary Schl		57.9	94.2	18.1	24.0	49.4	90.8	9.7	18.0	41.0	68.1	26.6	31.8	23.1	50.2	38.5	38.7	69.8	55.9	65.0
	Primary, Fem.		44.3	100.0	17.2	22.8	43.5	94.3	6.3	9.7	41.8	65.0	20.9	22.9	21.8	50.4	32.8	34.1	72.8	58.4	63.2
	P-T Ratio		52.1	83.2	53.5	41.4	56.0	83.1		28.4	69.2	40.5	70.2	53.1	71.2	73.6	51.5	34.4	67.7	69.0	68.6
	Ed. Progress.		39.9	94.2	31.7	19.1	31.9	80.2	36.2	40.1	54.8	48.5			67.1		78.9	89.4			84.0
	G-B Ratio	57.8	35.4	86.9	47.8	64.4	55.1	84.9		11.5	56.0	67.4	35.0	25.7	39.9	52.7	32.6	49.0	78.2	89.7	74.6
Poverty Sub-Score		7.8	66.2	51.6	60.2	45.4	62.5	35.1	37.4	18.6	34.2	51.8	8.0	64.4	62.1	0.0	39.0	72.7	63.4	31.3	59.5
Health and Sanitation Sub-Score		35.8	62.2	62.0	58.0	44.5	55.0	66.5	37.6	31.3	61.7	52.6	38.6	55.2	50.9	40.1	58.7	44.4	62.3	64.9	65.3
Education Sub-Score		59.7	40.2	90.5	27.2	40.0	52.1	86.3	24.7	17.6	58.7	66.8	45.6	35.2	49.1	67.7	48.7	41.0	77.8	60.2	68.0
Human Development 2006		34.4	56.2	68.0	48.4	43.3	56.5	62.6	33.2	22.5	51.5	57.1	30.7	51.6	54.0	36.0	48.8	52.7	67.8	52.2	64.3

*Note: See indicator descriptions for sources and additional information. Scores in italics are based on estimates.

Scores and Category Calculation—2006

	GUI GNB	KEN LES	LIB MAD	MAW MLI	MAU MAS	MZM NAM	NIR NIG	RWA STP	SEN SEY	SIE SOM	SAF SUD	SWA TAZ	TOG UGA	ZAM ZIM
	72.6	71.0	0.0 2.9	73.7 53.3	66.9 100.0	53.2 57.7	16.5 7.2	25.5	78.7	25.5	87.1	37.9 24.5	59.4	16.5 19.0
	40.1 16.1	44.9 29.4	0.9 13.5	46.2 42.6	44.3 100.0	33.0 70.9	9.9 32.6	28.9 33.4	33.3	9.6	48.8 53.5	11.1 59.7	21.9 56.8	12.8 12.8
	73.9 81.8	62.0 33.1	46.8	72.6 69.3	72.6 72.9	63.5 8.8	65.1 37.4	36.2 42.2	65.7 71.4	0.0	15.5	38.0 75.1	89.4 66.0	36.2 38.9
	48.1 20.7	42.0 11.1	18.0 58.3	24.9 43.0	72.3 100.0	9.7 39.2	50.8 22.4	19.0 76.6	69.4 97.2	9.1 25.1	34.0 55.7	4.8 37.5	56.0 34.1	7.4 10.4
	53.0 29.9	67.2 74.3	37.1 68.1	53.5 30.4	66.5 100.0	37.7 86.9	23.4 28.2	38.6 52.8	64.8	4.9 17.6	77.9 68.2	73.8 57.7	62.4 51.8	40.0 78.8
	57.1 48.0	73.9 54.7	43.2 76.3	48.0 54.2	61.4 100.0	75.8 90.6	14.4 48.0	38.4	53.7	0.0 33.6	81.5 79.1	82.0 55.2	76.3 74.3	60.9 58.5
	70.3 49.7	60.7 85.5	34.5 51.0	55.2 63.4	89.7 96.6	42.8 70.3	59.3 91.0	57.9 89.7	75.9 91.0	33.1	100.0 67.6	73.1 42.8	70.3 77.2	40.0 38.6
	57.9 48.7	71.1 81.6	93.4 47.4	81.6 82.9	51.3 100.0	71.1 52.6	31.6 51.3	94.7 81.6	75.0 100.0	57.9 15.8	81.6 65.8	44.7 92.1	78.9 86.8	80.3 88.2
	64.6 72.2	75.9 79.7	86.1 51.9	100.0 82.3	60.8 97.5	65.8 68.4	24.1 43.0	100.0 100.0	87.3 100.0	55.7 19.0	100.0 73.4	60.8 88.6	84.8 75.9	75.9 88.6
	95.7 88.9	82.0 30.5	98.8	58.0 95.1	98.3 98.6	51.9 41.5	97.0 88.7	91.3	98.2	95.6 97.7	43.9 95.5	0.0 80.9	90.6 81.1	49.4 39.9
	78.6 82.7	68.1 45.9	72.8 80.1	68.7 77.3	74.1 100.0	62.9 34.3	86.7 74.6	67.0 92.9	78.1 99.1	56.4 82.7	19.0 80.6	0.0 74.4	67.7 70.7	53.2 52.8
	6.3 7.0	8.0 1.7	0.7 18.4	0.0 5.0	6.1 71.6	0.3 19.3	0.2 16.5	1.9 35.9	2.2 100.0	0.7 1.9	50.5 18.9	9.1 0.2	1.1 4.0	6.3 9.6
	4.3 6.8	12.6 5.3	1.7 1.8	5.1 7.5	6.4 47.4	1.7 38.7	0.6 18.4	3.0 25.0	1.4 100.0	3.8 0.7	50.6 9.4	78.9 2.6	1.9 6.6	23.6 7.2
	35.9 47.4	50.0 73.1	50.0 30.8	65.4 35.9	39.7 100.0	26.9 83.3	30.8 33.3	66.7 73.1	69.2 84.6	44.9 9.0	84.6 61.5	51.3 51.3	38.5 48.7	46.2 75.6
	16.6 61.2	75.6 87.1	49.9 71.8	72.0 7.8	51.0 93.6	35.7 94.4	17.0 72.2	64.0 94.2	33.3 100.0	26.8 0.0	94.4 58.6	83.7 73.5	48.3 74.3	68.1 98.5
	10.5 51.9	73.3 97.6	48.0 67.4	65.0 7.5	46.0 90.1	27.3 93.5	7.7 64.4	60.8 87.5	26.7 100.0	19.7	93.2 51.1	83.1 67.3	35.1 66.0	60.8 94.3
	56.8 12.9	91.2 74.1	56.4 48.6	46.4 39.7	37.0 90.8	30.6 71.9	19.8 70.9	23.1 69.3	38.8 100.0	77.1	100.0 36.7	60.3 69.4	60.9 45.7	81.0 77.4
	46.8 7.8	90.4 91.0	51.4 50.5	48.7 31.1	39.5 93.2	25.2 77.5	15.6 63.2	25.6 72.9	38.9 100.0	65.5	100.0 35.3	64.7 69.3	50.0 44.5	75.9 76.5
	55.5 56.1	62.6 61.4	92.0 50.2	39.4	59.9 88.5	22.3 75.2	61.9 66.0	24.4 75.3	63.4 100.0	55.9	68.3 70.2	72.3 44.0	65.5 48.9	45.7 64.0
	64.7	58.1	44.5	66.3 47.3	36.1 59.2	43.3 68.9	51.1	45.8	38.8 94.0		87.6 96.2	85.9 33.7	57.3 29.7	43.4
	37.2 19.1	78.2 93.7	33.9 78.5	86.2 37.1	89.2 92.0	56.9 93.6	29.6 53.6	89.9 84.3	68.6 86.7	60.0 0.0	86.3 65.7	76.0 84.1	35.3 81.7	78.3 79.2
	57.0 56.8	59.3 31.2	0.4 21.1	64.2 55.1	61.3 91.0	49.9 45.8	30.5 25.7	30.2 37.8	59.2 71.4	11.7	50.5 53.5	29.0 53.1	55.7 60.7	21.8 23.6
	52.0 45.6	55.6 49.4	43.7 53.0	50.9 52.5	57.0 92.0	40.6 56.8	38.1 46.9	52.6 69.7	61.4 96.5	32.9 30.3	65.8 61.4	43.5 53.0	57.1 55.6	43.9 49.8
	41.1 34.8	78.6 80.4	55.3 58.8	64.1 30.0	51.2 86.8	34.5 82.1	29.0 65.0	48.0 75.6	44.1 97.2	50.8 0.0	90.0 59.1	75.1 63.1	50.3 55.8	64.8 81.7
	50.0 45.8	64.5 53.7	33.2 44.3	59.7 45.8	56.5 89.9	41.7 61.6	32.5 45.9	43.6 61.1	54.9 88.4	31.8 15.2	68.7 58.0	49.2 56.4	54.4 57.4	43.5 51.7

Category: Human Development

Sub-Category: Poverty

**INDICATORS: POVERTY RATE AT \$1 PER PERSON PER DAY; NATIONAL POVERTY RATE;
INCOME INEQUALITY (GINI INDEX)**

Poverty is a key aspect of Human Development. The Index of African Governance assesses poverty in each country using three indicators: the poverty rate at the international poverty line (\$1 per person per day); the poverty rate at the national poverty line (which varies by country and may be above or below \$1 per person per day); and income inequality (measured with the Gini Index). The Gini Index describes the difference between the actual income distribution and a perfectly equal distribution, expressed as a percentage, where low values suggest greater equality and high values greater inequality. In late August 2008, the World Bank adjusted its poverty measures from \$1 per day to \$1.25 per day and released adjusted data through 2005.¹ Because these figures do not provide information about 2006, we use earlier, more complete estimates here. The World Bank's revised estimates, once complete, will be incorporated into future iterations of the Index.

The data used in the Index are derived from a variety of sources, but mostly from the World Bank's World Development Indicators (WDI) 2008 and the OECD and African Development Bank's *African Economic Outlook 2007/2008*, which are standard international sources.² We supplement these data with estimates obtained directly from our own local in-country research, as well as from Poverty Reduction Strategy Papers and other sources. Details are provided below.

For each country, we use the most recent or best estimate available for each of these three indicators. However, we cannot assess year-to-year changes in poverty or inequality. Other projects such as the UNDP's *Human Development Report* and the Millennium Development Goals (MDGs) are also based on similar estimates and suffer from similar problems in assessing poverty in each year and progress over time. One reason is that figures on poverty are based on household surveys, which are expensive and time-consuming, and thus undertaken by national statistical agencies and other organizations only at intervals. In addition, it is argued that poverty indicators such as the ones we all use tend not to change rapidly year to year.

Several additional points should be noted about these data. First, ideally we would use data fully adjusted for purchasing power differences. However, such data are not currently available. The International Comparison Program has recently released other GDP per capita figures adjusted for purchasing power parity and is continuing work in this area.

Second, as the table below suggests, there is considerable unexplained variation in available estimates for some countries, even within "standard" sources such as those used here. Such variation suggests major problems with the data that the international community currently uses and the need for more work in this important area. Because of questions about the comparability of these data, we use only a single estimate for each of the three indicators of poverty and inequality.

Harvard University's Multidisciplinary Program on Inequality and Social Policy is actively exploring all global aspects of the issues with which the Index is attempting to come to grips for sub-Saharan Africa. The new Program is demonstrating that high inequality causes crime, mental and physical ill-health, societal conflict, and reduced political participation. Inequality shapes society in profound ways. The new Program is also grappling with many of the questions concerning data consistency and quality that concern the makers of the Index.³

1 See Reuters, "World Bank Finds More People Live in Steep Poverty," *New York Times* (27 August 2008).

2 Last accessed 26 July 2008.

3 Elizabeth Gudrais, "Unequal America: Causes and Consequences of the Wide—and Growing—Gap between Rich and Poor," *Harvard Magazine* (July–August, 2008), 22–29.

For in-depth discussions of poverty in each country, the Poverty Reduction Strategy Papers prepared by domestic stakeholders in consultation with donors, including the IMF and World Bank, are especially useful resources for further study.⁴ Disaggregated data—in particular, for rural and urban populations and for different regions—are also available for many countries and are useful for more in-depth analyses of poverty in particular countries.

The data presented in the table below show the depth of poverty in the sub-Saharan African region. Across countries, an average of more than 50 percent of Africans live below their countries' national poverty lines and almost 40 percent of the population is extremely poor, living on less than \$1 per day.⁵ Countries that record the lowest levels of national poverty include Mauritius (8 percent), followed by Namibia (28 percent) and Ghana (28.5 percent). The highest levels are recorded in Equatorial Guinea, Liberia, the Democratic Republic of the Congo, Sierra Leone, and Niger, where at least 70 percent of the population lives below the national poverty line.

Mauritius also records the lowest levels of poverty in terms of the international (\$1 per day) poverty line. Less than 1 percent of the Mauritian population live below this line. Mauritius is followed by South Africa, with 10.7 percent below the poverty line. At the other end of the spectrum, over 76 percent of Liberians live below the international poverty line, as do a recorded 74 percent in Madagascar.

In terms of inequality, the average Gini Index across our countries in sub-Saharan Africa is about 45.5, ranging from a low of 30.0 in Ethiopia to a high of 62.9 in Sierra Leone. By comparison, the African average is slightly above the Gini Index for the U.S., which was 41 in 2000, and well above the Gini Indexes for the U.K. (36 in 1999), France (33 in 1995), and Japan and Sweden (both 25, measured in 1993 and 2000, respectively).⁶ Brazil is often cited among countries with especially high rates of inequality. In sub-Saharan Africa, Brazil's Gini Index of 57 (2005) is exceeded by Sierra Leone (62.9), Angola (60), Namibia (60), Cape Verde (59), South Africa (57.8), and Botswana (57.3).⁷

Sources and Years for Each Country

Estimates for each country are compiled from both standard international databases and our country-specific sources. The table below shows available estimates for each country for each of the three poverty indicators, along with the year and source of each estimate. (Estimates from different sources are separated by a semi-colon.) The estimate given in bold is the one included in the Index of African Governance.

In general, only estimates from the previous decade, 1998 to 2008, are used in the Index and recorded in the table below. A few exceptions are noted. Although earlier estimates are sometimes used in other reports, we generally do not use them here; there are a number of reasons to expect poverty across countries to vary significantly over time. We might expect poverty rates in the 1990s to be systematically different from more recent poverty rates across countries.

Our research on each country shows clearly that it is common for estimates to vary significantly from source to source, including standard international sources. Further research is needed in order to understand and explain these differences, and to know which are the most reliable. A variety of factors may be at work, including use of different poverty lines and exchange rates, use of different underlying data, and changes over time. Misreporting or errors in estimates may add additional complications.

For these reasons, although more recent estimates may be available for some countries, we have made every effort to use the most recent estimate from two standard international data compilations: the World Bank's World Development Indicators (WDI) 2008 and the OECD and the African Development Bank's *African Economic Outlook 2008*.⁸ (In the table below, these sources are abbreviated as *WDI* and *AEO*, respectively.) For estimates on the \$1 per day poverty rate, we also use

⁴ A library of PRSPs by country is available on the IMF website at <http://www.imf.org/external/NP/prsp/prsp.asp>.

⁵ Note that data are not available for some countries, especially on the \$1 per day measure.

⁶ Figures are from the World Development Indicators 2008 (accessed 11 August 2008).

⁷ The Gini coefficient was invented in 1912 by Corrado Gini, an Italian statistician. His coefficient measures income distribution on a scale from 0 (where income is equally distributed among all members of society) to 1 (where one person possesses all income in a country).

⁸ WDI 2008 was last accessed on 30 July 2008.

information from the WDI 2007 because the WDI 2008 no longer includes \$1 per day poverty estimates.⁹ For purposes of comparison, we also checked these estimates against information from the U.S. Central Intelligence Agency's *The World Factbook 2008*. Estimates consistent with this source are noted below. (The abbreviation *WF* is used.)

If no suitable estimate is available from either the *WDI* or the *AEO*, we report estimates from other sources, including data collected through our Index field research and through desk studies on each country, particularly from each country's Poverty Reduction Strategy Paper. In some cases, additional information has been collected by our Index of African Governance field researchers that is not reported here. We also consulted the UNDP's *Human Development Report 2007/08* for selected countries. (The abbreviation *UNDP* is used.)

Notes about particular estimates are included below in the footnotes.

	Poverty: Population Below the National Poverty Line (%) ¹⁰		Poverty: Population Living on Less than \$1 per Person per Day (%) ¹¹		Inequality: Gini Index ¹²	
	Estimates	Sources	Estimates	Sources	Estimates	Sources
Angola	68.0 (2001)	<i>AEO 2008</i>		No estimate available ¹³	62.0 (2000-01)	Angola and UNDP 2005
Benin	26.5 (1995); 29.0 (1999); 29.6 (2000), 28.5 (2002); 46.4 (2003); 36.8 (2006)	<i>WDI 2008</i> ; <i>WDI 2008</i> / <i>UNDP 2007-08</i> ; <i>IMF 2008</i> ; <i>AEO 2008</i> ; <i>IMF 2008</i> ¹⁴	30.9 (2003)	<i>AEO 2008</i> / <i>WDI 2007</i>	36.5 (2003)	<i>AEO 2008</i> / <i>WF 2008</i> / <i>WDI 2008</i>
Botswana	30.3 (2003)	<i>AEO2008</i> / <i>WF 2008</i>	23.4 (2003)	<i>AEO 2008</i>	57.3 (2003)	<i>AEO 2008</i>
Burkina Faso	54.6 (1998); 46.4 (2003)	<i>WDI 2008</i> ; <i>WDI 2008</i> / <i>AEO 2008</i>	27.2 (2003)	<i>AEO 2008</i> / <i>WDI 2007</i>	46.9 (1998); 39.5 (2003)	<i>WDI 2008</i> ; <i>WDI 2008</i> ¹⁵

9 WDI 2007 data were downloaded on 9 August 2007.

10 *AEO 2008* defines this line as two-thirds of average consumption.

11 *AEO 2008* is taken as the authoritative source here. *WDI 2008* does not include estimates for poverty at \$1 per day. Estimates included in *WDI 2007* are reported here only when *AEO 2008* estimates are unavailable or when *WDI 2007* estimates are equivalent to those from *AEO 2008*.

12 *AEO 2008* or *WDI 2008* estimates are used, when available. *WDI 2007* estimates are not reported here because the *WDI 2008* should contain the most up-to-date estimates. Because *WF* estimates sometimes differ from those reported by *AEO* and *WDI*, *WF 2008* estimates are reported only when estimates are unavailable from *AEO* and *WDI* at all or for the appropriate years (1998–2008). Notes are also made when *WF 2008* estimates are equivalent to an *AEO* or *WDI* estimate.

13 The Government of Angola and UNDP, *Angola: Millennium Goals Report Summary* (Luanda, 2005), 8: "In 2000-1, it was estimated that around 68% of the Angolan population lived below the poverty line (which corresponds to USD 1,70 per day), 26% of which lived in a situation of extreme poverty (less than USD 0,75 per day)."

14 There is considerable variation in published estimates from standard international sources, some of which are shown here. Given the information available at the time of publication, we use the most recent estimate, which is also the mid-range value among available estimates in the 2000s. "IMF 2008" refers to IMF, "Benin: Poverty Reduction Strategy Paper—Growth Strategy for Poverty Reduction," IMF Country Report No. 08/125, April 2008 (originally published April 2007 by Republic of Benin), pp. 19–20, 25. Estimates for 2006 are based on provisional and partial results from the first round of EMICOV (*Enquête modulaire intégrée sur les conditions de vie des ménages*) 2006. Additional higher estimates are provided by the Institute for Empirical Research in Political Economy, Benin (IREEP), also using data from the 2006 EMICOV survey. IREEP's estimates for the Gini Index based on EMICOV are also considerably higher (60) than the given estimates.

15 *AEO 2008* estimate for 2003 is 40.0. *WF 2008* reports 39.5 for 2007.

Burundi	68.0 (1998); 36.2 (2006)	WDI 2008; AEO 2008 ¹⁶	47.7 (2006)	AEO 2008	42.4 (1998); 50.0 (2006)	WDI 2008/ WF 2008; AEO 2008 ¹⁷
Cameroon	53.3 (1996); 40.2 (2001)	WDI 2008; WDI 2008/ AEO 2008	17.1 (2001)	AEO 2008/ WDI 2007	46.8 (1996); 44.6 (2001)	WDI 2008; WDI 2008/ AEO 2008/WF 2008
Cape Verde	36.7 (2002)	AEO 2008		No estimate available.	50.5 (2001); 59.0 (2002)	WDI 2008; AEO 2008
Central African Republic	50.2 (2003); 67.2 (2003)	AEO 2008; PRSP 2007 ¹⁸	50.2 (2003)	AEO 2008	61.3 (1993); 42.0 (2003)	AEO 2008/ WDI 2008/WF 2008; PRSP 2007 ¹⁹
Chad	64.0 (1996)	WDI 2008/ AEO 2008/ UNDP 2007- 08 ²⁰		No estimate available.		No estimate available.
Comoros	60.0 (2002 est.); 44.8 (2004)	WF 2008; PRSP 2006 ²¹ / Direction Nationale de la Statistique- Commissariat Général au Plan ²²		No estimate available.	33.9 (no year); 44.3 (1995), 55.7 (2004)	AEO 2008; PRSP 2006 ²³
Congo	50.1 (2005)	AEO 2008		No estimate available.	41.6 (2005)	AEO 2008
Congo, Democratic Republic	71.3 (2004/0)	AEO 2008		No estimate available.		No estimate available.

16 PRSP September 2006 estimated poverty incidence according to the ISTEEDU, 1998 priority survey, at 81.1 percent (pp. 14–15). According to UNDP and Ministère de la Planification du Développement et de la Reconstruction (MPDR), *Rapport national du développement humain au Burundi 2003*, the incidence of poverty in the rural population went from 35.1 percent in 1990 to 68.8 percent in 1999, and from 32.4 percent to 66.6 percent in Bujumbura over the same period (p. 16). Our researcher's notes from the 2005 *Rapport national du développement humain au Burundi* suggest similar figures for the period 1990 and 2004, but they need to be verified.

17 Our researcher reports 37.98 based on the 2002 QUIDD. The *Rapport National du Développement Humain 2005* reports a 44.7 Gini for 1998.

18 The PRSP 2008–2010 notes that “Over two-thirds of the population (67.2%, i.e. 2,618,000 people) lived below the national poverty line in 2003” (Ministry of Economy, Planning and International Cooperation, *PRSP 2008-2010: Poverty Reduction Strategy Paper*, September 2007, p. 11).

19 p. 12.

20 This estimate is especially problematic, but is used in the absence of better information. The PRSP gives poverty estimates of 43.3 percent based on the 1995–1996 Survey on Consumption and the Informal Sector in Chad (ECOSIT) (See *National Poverty Reduction Strategy Paper* [N'Djamena, 2003], p. 20). The MDG report gives an estimate of 54 percent for 1995/96 citing ECOSIT and CCA (see “Premier Rapport Pays sur la mise en oeuvre de la Déclaration du Millénaire au Tchad,” January 2002, p. 7). *WF 2008* estimates 80 percent for 2001.

21 IMF, *Union of the Comoros: Interim Poverty Reduction Strategy Paper*, IMF Country Report No. 06/191 (May 2006), 21 (originally published October 2005 by Union of the Comoros).

22 Our researcher at DNS reports that this is based on the *Enquête Intégrale auprès des ménages*.

23 Our researcher at DNS reports similar figures, but for different years: for 2005, 0.443, based on *Enquête Budget Consommation auprès des ménages*, and for 2006, 0.557, based on *Enquête Intégrale auprès des ménages*. PRSP 2006 is at p. 21.

Côte d'Ivoire	38.4 (2002)	<i>AEO 2008</i>	14.8 (2002)	<i>AEO 2008/ WDI 2007</i>	36.7 (1995); 43.8 (1998); 44.6 (2002)	<i>WDI 2008; WDI 2008; WDI 2008/ AEO 2008/ WF 2008</i>
Djibouti	42.1 (2002)	<i>AEO 2008</i>		No estimate available.	39.5 (1996); 38.6 (no year)	World Bank 1997 ²⁴ ; <i>AEO 2008</i>
Equatorial Guinea	76.8 (2006)	<i>AEO 2008</i>		No estimate available.		No estimate available.
Eritrea	53.0 (1993-94); 50.0 (2004 est.)	<i>AEO 2008/ WDI 2008²⁵; WF 2008</i>		No estimate available.		No estimate available.
Ethiopia	45.5 (1996); 44.2 (2000)	<i>WDI 2008; WDI 2008/ AEO 2008²⁶</i>	23.0 (1999-00)	<i>AEO 2008/ WDI 2007</i>	40.0 (1995); 30.0 (1999); 30.0 (2000)	<i>WDI 2008; WDI 2008; AEO 2008/WF 2008</i>
Gabon	62.0 (1994); 33.0 (2005)	<i>AEO 2007; AEO 2008</i>	23.0 (1994)	<i>AEO 2008/ WDI 2007</i>	42.1 (2005)	<i>AEO 2008</i>
Gambia	57.6 (1998); 61.3 (2003); 57.9 (2003)	<i>WDI 2008; WDI 2008; AEO 2008</i>	59.3 (1998)	<i>AEO 2008/ WDI 2007</i>	50.2 (1998); 47.4 (2003); 48.4 (2003)	<i>WDI 2008; WDI 2008; AEO 2008</i>
Ghana	39.5 (1999); 42.6 (1998-99); 28.5 (2006)	<i>WDI 2008; AEO 2008; WDI 2008/WF 2008²⁷</i>	44.8 (1998-99)	<i>AEO 2008/ WDI 2007</i>	40.8 (1998); 41.0 (2001)	<i>WDI 2008; AEO 2008</i>
Guinea	40.0 (1994); 49.2 (2002/03), 53.6 (2005); 47.0 (2006 est.)	<i>AEO 2008/WDI 2008; DSRP 2007²⁸; WF 2008</i>	26.3 (1991); >49.2 (2002/03)	<i>AEO 2008; DSRP 2007²⁹</i>	38.6 (2003); 40.3 (2002/03); 38.6 (2006)	<i>WDI 2008; DRSP 2007³⁰; AEO 2008</i>
Guinea-Bissau	65.7 (2002); 20.8 (2002)	<i>WDI 2008/ World Bank 2006; AEO 2008³¹</i>	88.2 (1991); 21.6 (2002)	<i>AEO 2008; World Bank 2006³²</i>	47.0 (1993); 36.0 (2002)	<i>WDI 2008/ AEO 2008; World Bank 2006</i>

24 Estimate is from World Bank, "Djibouti: Crossroads of the Horn of Africa Poverty Assessment," (7 October 1997), 15, available at <http://go.worldbank.org/H9PBCFL8R0> (last accessed 12 August 2007).

25 *WDI 2008* gives the year as 1994.

26 *AEO 2008* gives year as 1999–2000.

27 *WF 2008* gives the year as 2007 (estimate).

38 Ministère de l'Economie, des Finances et du Plan, *Document de Strategie de Reduction de la Pauvreté: DRSP (2007-2010)* (Conakry, 2007), 13 and 40. Estimates for 2002/03 and for 2005 are based on the *Enquête de Base pour l'Evaluation de la Pauvreté* (EIBEP 2002–2003); thus, we use the 2002/03 estimate. The report gives the poverty line at 387.692 FG (196 USD) per person per year, i.e., less than \$1 per person per day.

39 Rough estimate: the report gives the poverty line at 387.692 FG (196 USD) per person per year, i.e., less than \$1 per person per day.

30 p. 13.

31 The estimate of 65.7 is consistent with estimates using a poverty line of \$2 per person per day, based on the Guinea-Bissau Light Household Survey Data (ILAP) 2002, as reported in World Bank, *Guinea-Bissau Integrated Poverty and Social Assessment (IPSA) (In Two Volumes), Volume I: Main Report*, Report No. 34553-GW (Washington, D.C., 2006), 25.

32 p. 25. Estimate is for "extreme poverty."

Kenya	52.0 (1997); 45.9 (2005-06)	<i>WDI 2008;</i> <i>AEO 2008</i>	22.8 (1997)	<i>AEO 2008/</i> <i>WDI 2007</i> ³³	42.5 (1997); 42.5 (2000)	<i>WDI 2008;</i> <i>AEO 2008</i>
Lesotho	68.0 (1999); 56.6 (2002-03)	<i>WDI 2008;</i> <i>AEO 2008</i>	36.4 (1995)	<i>AEO 2008/</i> <i>WDI 2007</i>	63.2 (1995); 52.0 (2002-03)	<i>WDI 2008/</i> <i>WF 2008; AEO</i> <i>2008</i>
Liberia	76.2 (2002)	<i>AEO 2008</i> ³⁴	76.2 (2001)	<i>UNDP,</i> <i>National</i> <i>Human</i> <i>Development</i> <i>Report Liberia</i> <i>2006 (p. 1)</i>		No estimate available.
Madagascar	73.3 (1997); 71.3 (1999); 67.5 (2006)	<i>WDI 2008;</i> <i>WDI 2008;</i> <i>AEO 2008</i>	74.0 (2004)	<i>AEO 2008</i>	39.2 (1997); 41.8 (1999); 47.5 (2001); 47.5 (2001-04)	<i>WDI 2008;</i> <i>WDI 2008;</i> <i>WDI 2008/</i> <i>WF 2008; AEO</i> <i>2008</i>
Malawi	65.3 (1998); 45.0 (2006)	<i>WDI 2008;</i> <i>AEO 2008</i>	20.8 (2004)	<i>AEO 2008/</i> <i>WDI 2007</i>	39.0 (2004)	<i>WDI 2008/</i> <i>AEO 2008/WF</i> <i>2008</i>
Mali	63.8 (1998); 47.5 (2005)	<i>WDI 2008;</i> <i>AEO 2008</i>	36.1 (2001)	<i>WDI 2007</i> ³⁵	40.1 (2001)	<i>WDI 2008/</i> <i>AEO 2008/WF</i> <i>2008</i>
Mauritania	50.0 (1996); 46.3 (2000)	<i>WDI 2008;</i> <i>WDI 2008/</i> <i>AEO 2008</i>	25.9 (2000)	<i>AEO 2008/</i> <i>WDI 2007</i>	37.3 (1996); 39.0 (2000)	<i>WDI 2008;</i> <i>WDI 2008/</i> <i>AEO 2008/WF</i> <i>2008</i>
Mauritius	10.0 (2001 est.); 8.0 (2006 est.)	<i>WF 2007; WF</i> <i>2008</i>	<1.0 (2001/02), <1.0 (2006/07)	Central Statistics Office ³⁶	38.9 (2006)	<i>AEO 2008</i>
Mozambique	69.4 (1997); 54.1 (2003)	<i>WDI 2008;</i> <i>WDI 2008/</i> <i>AEO 2008</i> ³⁷	37.9 (1996); 36.2 (2002)	<i>AEO 2008;</i> <i>WDI 2007</i>	44.5 (1997); 47.3 (2002); 42.0 (2003)	<i>WDI 2008;</i> <i>WDI 2008/</i> <i>WF 2008; AEO</i> <i>2008</i>
Namibia	28.0 (2004)	<i>AEO 2008</i>	32.8 (2004)	<i>AEO 2008</i>	60.0 (2003-04)	<i>AEO 2008</i>

33 The number reported is equivalent to that reported in Kenya National Bureau of Statistics, *Basic Report on Well-being in Kenya*. Nairobi: Kenya National Bureau of Statistics (Nairobi, 2007), 55. It is based on the 1997 Welfare Monitoring Survey (WMS III). Our researchers in Kenya found that there are no estimates on the percentage of all nationals who live on less than \$1 a day based on the 2005/06 Kenya Integrated Household Budget Survey. We thus use the 1997 estimate.

34 This number is equivalent to the \$1 per person per day rate of 76.2 percent in 2001 from UNDP, *National Human Development Report Liberia 2006* (p. 1).

35 *AEO 2008* reports 72.8 for 1994. *WDI 2007* (9 August 2007) reported 36.1 (2001) and 72.3 (1994).

36 Based on 2001/02 and 2006/07 Household Budget Surveys. Central Statistics Office, "Poverty statistics compiled by the Central Statistics Office," available at <http://www.gov.mu/portal/site/cso> (last accessed 31 July 2008).

37 *AEO 2008* gives year as 2002/03.

Niger	63.0 (1993); 74.0 (2002), 70.0 (2004)	<i>AEO 2008/ WDI 2008/ WF 2008/Niger 2007; Niger 2007</i> ³⁸	63.8 (2004)	<i>AEO 2008</i>	50.5 (1995); 41.5 (2004)	<i>WDI 2008/ WF 2008; AEO 2008</i>
Nigeria	54.4 (2006)	<i>AEO 2008</i>	70.8 (2003)	<i>AEO 2008/ WDI 2007</i>	46.5 (1996); 43.7 (2003); 50.6 (2003)	<i>WDI 2008; WDI 2008/ WF 2008; AEO 2008</i>
Rwanda	60.3 (2000); 56.9 (2005-06)	<i>WDI 2008; AEO 2008</i>	57.0 (2005-06)	<i>AEO 2008</i>	46.8 (2000); 51.0 (2005-06)	<i>WDI 2008/ WF 2008; AEO 2008</i>
São Tomé and Príncipe	53.8 (2001)	<i>AEO 2008</i> ³⁹		No estimate available.	49.0 (2001 est.)	Instituto Nacional de Estatística ⁴⁰
Senegal	53.9 (2001)	<i>AEO 2008</i>	17.0 (2001)	<i>AEO 2008/ WDI 2007</i>	41.4 (1995); 41.3 (2001)	<i>WDI 2008; WDI 2008/ AEO 2008/WF 2008</i>
Seychelles		No estimate available.		No estimate available.	39.4 (2006-07)	National Statistics Bureau ⁴¹
Sierra Leone	70.0 (2003); 70.2 (2004)	<i>AEO 2008; WDI 2008</i>	57.0 (2004)	<i>AEO 2008</i> ⁴²	40.0 (2003); 62.9 (2004)	<i>WDI 2008; AEO 2008</i>
Somalia		No estimate available.		No estimate available.		No estimate available.
South Africa	43.2 (2006)	<i>AEO 2008</i>	10.7 (2000)	<i>AEO 2008</i>	56.6 (1995); 57.8 (2000)	<i>WDI 2008; WDI 2008/ AEO 2008</i>
Sudan	40.0 (2004 est.)	<i>WF 2008</i>		No estimate available.		No estimate available.
Swaziland	40.0 (1995); 69.2 (2001)	<i>AEO 2008; WDI 2008</i>	47.7 (2001)	<i>AEO 2008</i>	60.7 (1995); 50.4 (2000); 50.4 (2001)	<i>WDI 2008; WDI 2008; AEO 2008/WF 2008</i>
Tanzania	35.7 (2001)	<i>WDI 2008/ AEO 2008</i> ⁴³	57.8 (1993); 57.8 (2000)	<i>AEO 2008; WDI 2007</i>	38.2 (2000-01); 34.6 (2000)	<i>AEO 2008; WDI 2008/WF 2008</i>

38 République du Niger (under the direction of Théodore Mpatwenumugabo, et al.), *Mesure de la Pauvreté Selon la Méthode de Degré de Satisfaction des Besoins Essentiels (DSBE): Expérience du Niger* (Niamey, 2007), 90. Estimate of 63 percent for 1989–1993 is also given in the same report.

49 Our field researcher reports this estimate for national poverty based on information provided by Helder Salvaterra, Instituto Nacional de Estatística (INE).

40 Estimate is provided by Helder Salvaterra, Instituto Nacional de Estatística (INE).

41 Preliminary figure from 2006/07 Household Budget Survey, reported to us directly by the National Statistics Bureau.

42 *WDI 2007* estimate for 1989 is equivalent.

43 *AEO 2008* gives the year as 2000–2001.

Togo	72.2 (1995); 61.7 (2006)	<i>AEO 2008</i> ; DSRP 2007 ⁴⁴		No estimate available.	33.5 (2006)	DSRP 2007 ⁴⁵
Uganda	33.8 (2000); 37.7 (2003)	<i>WDI 2008</i> / <i>AEO 2008</i> ⁴⁶ ; <i>WDI 2008</i>	31.5 (2005-06)	<i>AEO 2008</i>	37.1 (1996); 43.1 (1999); 45.7 (2002); 41.2 (2005-06)	<i>WDI 2008</i> ; <i>WDI 2008</i> ; <i>WDI 2008</i> / <i>WF 2008</i> ; <i>AEO 2008</i>
Zambia	72.9 (1998); 68.0 (2004)	<i>WDI 2008</i> ; <i>WDI 2008</i> / <i>AEO 2008</i>	63.8 (2004)	<i>AEO 2008</i> / <i>WDI 2007</i>	49.8 (1996); 53.4 (1998); 50.8 (2004); 51.0 (2004)	<i>WDI 2008</i> ; <i>WDI 2008</i> ; <i>WDI 2008</i> / <i>WF 2008</i> ; <i>AEO 2008</i>
Zimbabwe	34.9 (1996); 68.0 (2004)	<i>WDI 2008</i> / <i>AEO 2008</i> ⁴⁷ ; <i>WF 2008</i>	61.9 (2004)	<i>AEO 2008</i>	50.1 (1995); 50.1 (2004)	<i>WDI 2008</i> ; <i>AEO 2008</i>

⁴⁴ République Togolaise, "Stratégie Interiminaire de Réduction de la Pauvreté – Draft Officiel," (2007), 13–14. Based on Direction Générale de la Statistique et de la Comptabilité Nationale (DGSCN), "Profil de Pauvreté 2006," based on the 2006 QUIBB survey.

⁴⁵ p. 15.

⁴⁶ *AEO 2008* gives the year as 1999–2000.

⁴⁷ *AEO 2008* gives the year as 1995–1996.

Poverty Rate at \$1 per Person per Day

African Economic Outlook 2008; WDI 2007; and others

	SCALED DATA:											
	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola												
Benin	30.9	30.9	30.9	30.9	13	13	13	13	60.2	60.2	60.2	60.2
Botswana	23.4	23.4	23.4	23.4	10	10	10	10	70.2	70.2	70.2	70.2
Burkina Faso	27.2	27.2	27.2	27.2	12	12	12	12	65.2	65.2	65.2	65.2
Burundi	47.7	47.7	47.7	47.7	19	19	19	19	37.9	37.9	37.9	37.9
Cameroon	17.1	17.1	17.1	17.1	5	5	5	5	78.6	78.6	78.6	78.6
Cape Verde												
Central African Republic	50.2	50.2	50.2	50.2	21	21	21	21	34.6	34.6	34.6	34.6
Chad												
Comoros												
Congo												
Congo, Democratic Rep.												
Cote d'Ivoire	14.8	14.8	14.8	14.8	3	3	3	3	81.6	81.6	81.6	81.6
Djibouti												
Equatorial Guinea												
Eritrea												
Ethiopia	23	23	23	23	9	9	9	9	70.7	70.7	70.7	70.7
Gabon												
Gambia	59.3	59.3	59.3	59.3	25	25	25	25	22.5	22.5	22.5	22.5
Ghana	44.8	44.8	44.8	44.8	18	18	18	18	41.8	41.8	41.8	41.8
Guinea												
Guinea-Bissau	21.6	21.6	21.6	21.6	7	7	7	7	72.6	72.6	72.6	72.6
Kenya	22.8	22.8	22.8	22.8	8	8	8	8	71.0	71.0	71.0	71.0
Lesotho												
Liberia	76.2	76.2	76.2	76.2	31	31	31	31	0.0	0.0	0.0	0.0
Madagascar	74	74	74	74	30	30	30	30	2.9	2.9	2.9	2.9
Malawi	20.8	20.8	20.8	20.8	6	6	6	6	73.7	73.7	73.7	73.7
Mali	36.1	36.1	36.1	36.1	16	16	16	16	53.3	53.3	53.3	53.3
Mauritania	25.9	25.9	25.9	25.9	11	11	11	11	66.9	66.9	66.9	66.9
Mauritius	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Mozambique	36.2	36.2	36.2	36.2	17	17	17	17	53.2	53.2	53.2	53.2
Namibia	32.8	32.8	32.8	32.8	15	15	15	15	57.7	57.7	57.7	57.7
Niger	63.8	63.8	63.8	63.8	27	27	27	27	16.5	16.5	16.5	16.5
Nigeria	70.8	70.8	70.8	70.8	29	29	29	29	7.2	7.2	7.2	7.2
Rwanda	57	57	57	57	22	22	22	22	25.5	25.5	25.5	25.5
Sao Tome and Principe												
Senegal	17	17	17	17	4	4	4	4	78.7	78.7	78.7	78.7
Seychelles												
Sierra Leone	57	57	57	57	22	22	22	22	25.5	25.5	25.5	25.5
Somalia												
South Africa	10.7	10.7	10.7	10.7	2	2	2	2	87.1	87.1	87.1	87.1
Sudan												
Swaziland	47.7	47.7	47.7	47.7	19	19	19	19	37.9	37.9	37.9	37.9
Tanzania	57.8	57.8	57.8	57.8	24	24	24	24	24.5	24.5	24.5	24.5
Togo												
Uganda	31.5	31.5	31.5	31.5	14	14	14	14	59.4	59.4	59.4	59.4
Zambia	63.8	63.8	63.8	63.8	27	27	27	27	16.5	16.5	16.5	16.5
Zimbabwe	61.9	61.9	61.9	61.9	26	26	26	26	19.0	19.0	19.0	19.0

Poverty Rate using National Poverty Line

African Economic Outlook 2008; WDI 2008; and others

	RAW DATA:				SCALED DATA:				SCALED DATA:			
					Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	68	68	68	68	38	38	38	38	12.8	12.8	12.8	12.8
Benin	36.8	36.8	36.8	36.8	9	9	9	9	58.1	58.1	58.1	58.1
Botswana	30.3	30.3	30.3	30.3	4	4	4	4	67.6	67.6	67.6	67.6
Burkina Faso	46.4	46.4	46.4	46.4	21	21	21	21	44.2	44.2	44.2	44.2
Burundi	36.2	36.2	36.2	36.2	7	7	7	7	59.0	59.0	59.0	59.0
Cameroon	40.2	40.2	40.2	40.2	13	13	13	13	53.2	53.2	53.2	53.2
Cape Verde	36.7	36.7	36.7	36.7	8	8	8	8	58.3	58.3	58.3	58.3
Central African Republic	67.2	67.2	67.2	67.2	36	36	36	36	14.0	14.0	14.0	14.0
Chad	64	64	64	64	34	34	34	34	18.6	18.6	18.6	18.6
Comoros	44.8	44.8	44.8	44.8	17	17	17	17	46.5	46.5	46.5	46.5
Congo	50.1	50.1	50.1	50.1	25	25	25	25	38.8	38.8	38.8	38.8
Congo, Democratic Rep.	71.3	71.3	71.3	71.3	44	44	44	44	8.0	8.0	8.0	8.0
Cote d'Ivoire	38.4	38.4	38.4	38.4	11	11	11	11	55.8	55.8	55.8	55.8
Djibouti	42.1	42.1	42.1	42.1	14	14	14	14	50.4	50.4	50.4	50.4
Equatorial Guinea	76.8	76.8	76.8	76.8	46	46	46	46	0.0	0.0	0.0	0.0
Eritrea	50	50	50	50	24	24	24	24	39.0	39.0	39.0	39.0
Ethiopia	44.2	44.2	44.2	44.2	16	16	16	16	47.4	47.4	47.4	47.4
Gabon	33	33	33	33	5	5	5	5	63.7	63.7	63.7	63.7
Gambia	57.9	57.9	57.9	57.9	32	32	32	32	27.5	27.5	27.5	27.5
Ghana	28.5	28.5	28.5	28.5	3	3	3	3	70.2	70.2	70.2	70.2
Guinea	49.2	49.2	49.2	49.2	23	23	23	23	40.1	40.1	40.1	40.1
Guinea-Bissau	65.7	65.7	65.7	65.7	35	35	35	35	16.1	16.1	16.1	16.1
Kenya	45.9	45.9	45.9	45.9	19	19	19	19	44.9	44.9	44.9	44.9
Lesotho	56.6	56.6	56.6	56.6	30	30	30	30	29.4	29.4	29.4	29.4
Liberia	76.2	76.2	76.2	76.2	45	45	45	45	0.9	0.9	0.9	0.9
Madagascar	67.5	67.5	67.5	67.5	37	37	37	37	13.5	13.5	13.5	13.5
Malawi	45	45	45	45	18	18	18	18	46.2	46.2	46.2	46.2
Mali	47.5	47.5	47.5	47.5	22	22	22	22	42.6	42.6	42.6	42.6
Mauritania	46.3	46.3	46.3	46.3	20	20	20	20	44.3	44.3	44.3	44.3
Mauritius	8	8	8	8	1	1	1	1	100.0	100.0	100.0	100.0
Mozambique	54.1	54.1	54.1	54.1	28	28	28	28	33.0	33.0	33.0	33.0
Namibia	28	28	28	28	2	2	2	2	70.9	70.9	70.9	70.9
Niger	70	70	70	70	42	42	42	42	9.9	9.9	9.9	9.9
Nigeria	54.4	54.4	54.4	54.4	29	29	29	29	32.6	32.6	32.6	32.6
Rwanda	56.9	56.9	56.9	56.9	31	31	31	31	28.9	28.9	28.9	28.9
Sao Tome and Principe	53.8	53.8	53.8	53.8	26	26	26	26	33.4	33.4	33.4	33.4
Senegal	53.9	53.9	53.9	53.9	27	27	27	27	33.3	33.3	33.3	33.3
Seychelles												
Sierra Leone	70.2	70.2	70.2	70.2	43	43	43	43	9.6	9.6	9.6	9.6
Somalia												
South Africa	43.2	43.2	43.2	43.2	15	15	15	15	48.8	48.8	48.8	48.8
Sudan	40	40	40	40	12	12	12	12	53.5	53.5	53.5	53.5
Swaziland	69.2	69.2	69.2	69.2	41	41	41	41	11.1	11.1	11.1	11.1
Tanzania	35.7	35.7	35.7	35.7	6	6	6	6	59.7	59.7	59.7	59.7
Togo	61.7	61.7	61.7	61.7	33	33	33	33	21.9	21.9	21.9	21.9
Uganda	37.7	37.7	37.7	37.7	10	10	10	10	56.8	56.8	56.8	56.8
Zambia	68	68	68	68	38	38	38	38	12.8	12.8	12.8	12.8
Zimbabwe	68	68	68	68	38	38	38	38	12.8	12.8	12.8	12.8

Inequality (GINI Index)

WDI 2008; *African Economic Outlook 2008*; and others

	SCALED DATA:											
	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	62	62	62	62	40	40	40	40	2.7	2.7	2.7	2.7
Benin	36.5	36.5	36.5	36.5	4	4	4	4	80.2	80.2	80.2	80.2
Botswana	57.3	57.3	57.3	57.3	36	36	36	36	17.0	17.0	17.0	17.0
Burkina Faso	39.5	39.5	39.5	39.5	12	12	12	12	71.1	71.1	71.1	71.1
Burundi	50	50	50	50	28	28	28	28	39.2	39.2	39.2	39.2
Cameroon	44.6	44.6	44.6	44.6	23	23	23	23	55.6	55.6	55.6	55.6
Cape Verde	59	59	59	59	38	38	38	38	11.9	11.9	11.9	11.9
Central African Republic	42	42	42	42	19	19	19	19	63.5	63.5	63.5	63.5
Chad												
Comoros	55.7	55.7	55.7	55.7	35	35	35	35	21.9	21.9	21.9	21.9
Congo	41.6	41.6	41.6	41.6	18	18	18	18	64.7	64.7	64.7	64.7
Congo, Democratic Rep.												
Cote d'Ivoire	44.6	44.6	44.6	44.6	23	23	23	23	55.6	55.6	55.6	55.6
Djibouti	38.6	38.6	38.6	38.6	6	6	6	6	73.9	73.9	73.9	73.9
Equatorial Guinea												
Eritrea												
Ethiopia	30	30	30	30	1	1	1	1	100.0	100.0	100.0	100.0
Gabon	42.1	42.1	42.1	42.1	21	21	21	21	63.2	63.2	63.2	63.2
Gambia	48.4	48.4	48.4	48.4	26	26	26	26	44.1	44.1	44.1	44.1
Ghana	41	41	41	41	14	14	14	14	66.6	66.6	66.6	66.6
Guinea	38.6	38.6	38.6	38.6	6	6	6	6	73.9	73.9	73.9	73.9
Guinea-Bissau	36	36	36	36	3	3	3	3	81.8	81.8	81.8	81.8
Kenya	42.5	42.5	42.5	42.5	22	22	22	22	62.0	62.0	62.0	62.0
Lesotho	52	52	52	52	34	34	34	34	33.1	33.1	33.1	33.1
Liberia												
Madagascar	47.5	47.5	47.5	47.5	25	25	25	25	46.8	46.8	46.8	46.8
Malawi	39	39	39	39	9	9	9	9	72.6	72.6	72.6	72.6
Mali	40.1	40.1	40.1	40.1	13	13	13	13	69.3	69.3	69.3	69.3
Mauritania	39	39	39	39	9	9	9	9	72.6	72.6	72.6	72.6
Mauritius	38.9	38.9	38.9	38.9	8	8	8	8	72.9	72.9	72.9	72.9
Mozambique	42	42	42	42	19	19	19	19	63.5	63.5	63.5	63.5
Namibia	60	60	60	60	39	39	39	39	8.8	8.8	8.8	8.8
Niger	41.5	41.5	41.5	41.5	17	17	17	17	65.1	65.1	65.1	65.1
Nigeria	50.6	50.6	50.6	50.6	31	31	31	31	37.4	37.4	37.4	37.4
Rwanda	51	51	51	51	32	32	32	32	36.2	36.2	36.2	36.2
Sao Tome and Principe	49	49	49	49	27	27	27	27	42.2	42.2	42.2	42.2
Senegal	41.3	41.3	41.3	41.3	16	16	16	16	65.7	65.7	65.7	65.7
Seychelles	39.4	39.4	39.4	39.4	11	11	11	11	71.4	71.4	71.4	71.4
Sierra Leone	62.9	62.9	62.9	62.9	41	41	41	41	0.0	0.0	0.0	0.0
Somalia												
South Africa	57.8	57.8	57.8	57.8	37	37	37	37	15.5	15.5	15.5	15.5
Sudan												
Swaziland	50.4	50.4	50.4	50.4	30	30	30	30	38.0	38.0	38.0	38.0
Tanzania	38.2	38.2	38.2	38.2	5	5	5	5	75.1	75.1	75.1	75.1
Togo	33.5	33.5	33.5	33.5	2	2	2	2	89.4	89.4	89.4	89.4
Uganda	41.2	41.2	41.2	41.2	15	15	15	15	66.0	66.0	66.0	66.0
Zambia	51	51	51	51	32	32	32	32	36.2	36.2	36.2	36.2
Zimbabwe	50.1	50.1	50.1	50.1	29	29	29	29	38.9	38.9	38.9	38.9

RESEARCHER'S REPORT:
INCOME INEQUALITY IN SUB-SAHARAN AFRICA

Zekarias Hussein

This is a "Researcher's Report" prepared as background for the project, but not necessarily representative of the full range of analysis contained in the 2008 Index. For further information on poverty and inequality, see the descriptive note on Poverty indicators and the introduction to the Human Development category.

The recent literature on globalization and economic growth draws attention to the state of income distribution across and within countries. Income inequality has received considerable attention given its implications for economic growth and development, as well as concerns about equity and relative poverty. The issue of inequality is especially important in sub-Saharan Africa, where economic growth has been sluggish and other social and political conditions have been slow to change. There is increasing recognition that income inequality might hinder economic growth.

The measurement of poverty and inequality is of paramount importance in understanding the nature of underdevelopment, and to study underdevelopment's determinants and dynamics over time. However, the estimations of income, wealth, or consumption for poverty analysis require extensive household surveys and sophisticated statistical inference techniques. This is particularly the case in sub-Saharan Africa, where regional data are scarce and unreliable. In addition, nationally compiled data, when available, may reflect different collection procedures and thus lead to difficulties in country comparisons and regional aggregation. Notwithstanding, the existing research on poverty and inequality in sub-Saharan Africa shows these two indicators falling slowly over time while still remaining high when compared with other regions.

Sources for Inequality Data

The first major source of data for income inequality for sub-Saharan African countries is the World Bank's World Development Indicators (WDI).

The 2007 online edition of WDI shows that the income distribution statistics for the region lack the frequency and time-span necessary to conclusively discern any historic trends (Table 1).¹ Between 1980 and 2006, sixteen countries of the sub-Saharan African region have no data on Gini coefficients at all. In fact, for all but nine of the thirty countries, there is only one single data point listed (mostly between 1993 and 1998). Zambia and Côte d'Ivoire are the only countries with more than four observations, but most of the data points are between 1990 and 1998. Zambia is the only country in the region with two data points since 2000. Most of the countries with between two and three data points have very old Gini coefficient estimates. This implies that there is not a single instance of national data adequately spanning, say, at least every ten years and that regional extrapolations of time trends thus cannot be made on the basis of representative national evidence.

Table 1. Sub-Saharan Africa: Availability of Gini Index Estimates (1980 to 2006)

Number of years for which data are available	Countries
>5	Côte d'Ivoire, Zambia
4	Ghana, Madagascar, Mauritania, Nigeria
3	Burkina Faso, Ethiopia, Lesotho, Niger, Senegal, South Africa
2	Botswana, Burundi, Cameroon, Kenya, Mali, Mozambique, Rwanda, Swaziland, Tanzania, Zimbabwe
1	Benin, the Central African Republic, the Gambia, Guinea, Guinea-Bissau, Malawi, Namibia, Sierra Leone, Uganda
0	Angola, Cape Verde, Chad, the Comoros, Congo, the Democratic Republic of the Congo, Equatorial Guinea, Eritrea, Gabon, Liberia, Mauritius, São Tomé and Príncipe, the Seychelles, Somalia, the Sudan, Togo

Source: World Bank, *World Development Indicators* electronic database (2007).

¹ Editor's note: This report was completed in late 2007, but the latest 2008 WDI shows similar missing data.

In the absence of regionally consistent data sources, economic analysts have developed their own expanded datasets by drawing on other relevant information to supplement the WDI. The first such comprehensive attempt is the dataset compiled by Deininger and Squire (1996). Using published references with identifiable income survey sources, they gathered information on Gini coefficients, as well as figures on the top and bottom income quintiles, for 108 countries, including 24 sub-Saharan African countries from the early 1960s up to and including 1996. However, out of the twenty-four, fifteen had only one data point. Only three countries (Mauritius, Tanzania, and Zambia) had more than one meaningful data point spanning a large enough time period to assess changes in income status.

Deininger and Squire's 1996 dataset has recently been updated to 2004 and the database now includes most sub-Saharan African countries. However, out of all of these countries, only twenty-nine have data points that are nationally representative and what Deininger and Squire (2004) call "high quality" (Table 2). Of the twenty-nine countries, nineteen have one single annual observation between 1960 and 2000, and eight countries have between two and three data points that are sometimes more than five years apart. Such scarcity of data for sub-Saharan African countries stands in sharp contrast to the much higher frequency and longer time spans for the non-African countries in the same data set.

Figure 1:

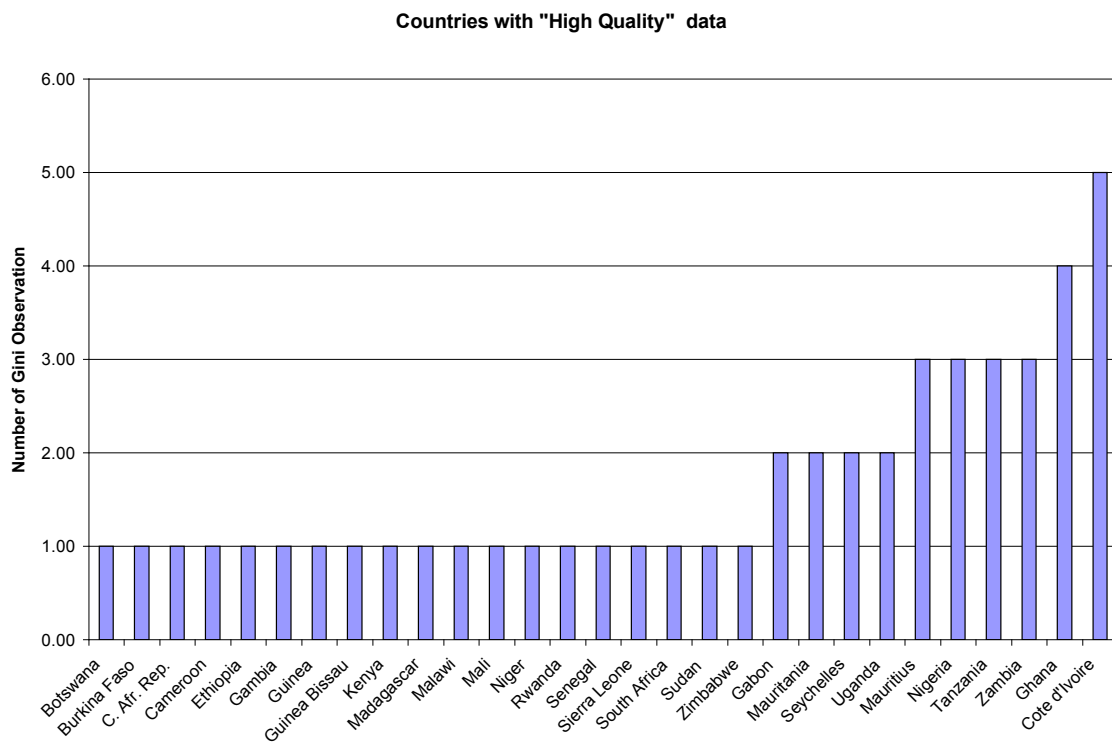
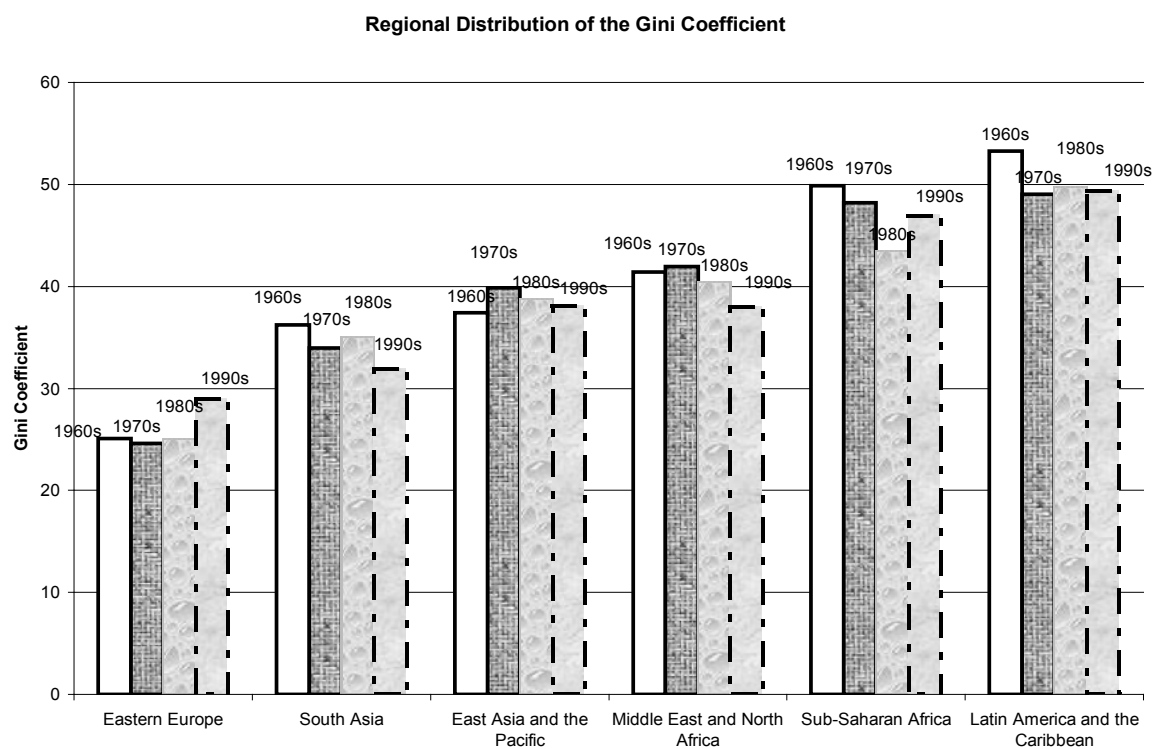


Table 2. Sub-Saharan Africa: Summary of Coverage and Results from Deininger and Squire (2004)

	1960s	1970s	1980s	1990s
Number of Observations	3	5	15	12
Countries Represented	Sierra Leone, the Sudan, Tanzania	Gabon, the Seychelles, Tanzania, Zambia	Botswana, Cameroon, Côte d'Ivoire, Ghana, Mauritania, Mauritius, Nigeria, Rwanda, the Seychelles, Uganda	Burkina Faso, Central African Rep., Côte d'Ivoire, Ethiopia, the Gambia, Ghana, Guinea, Guinea Bissau, Kenya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Niger, Nigeria, Senegal, South Africa, Tanzania, Uganda, Zambia, Zimbabwe
Gini (Average)	51.37	49.88	50.13	49.60
Gini (Median)	52.20	51.50	51.70	51.00

Income/Expenditure Inequality in sub-Saharan Africa

Until recently, most people perceived income inequality to be low in Africa and not a serious impediment to poverty reduction. However, a close examination of even the scantily available data shows markedly higher inequality in sub-Saharan Africa than in other regions of the world.

Figure 2:

Source: Deininger and Squire (2004)

The figure above shows that sub-Saharan Africa's average income inequality levels are roughly comparable to those of Latin America. The available numbers suggest that income inequality is indeed considerably higher than had been thought initially, despite low levels of per capita income and predominantly homogeneous livelihood systems. Table 3 reports the state of income inequality in Africa for selected countries, mostly for the mid-1990s. The value of the Gini coefficient according to these data varied from a high of 0.62 in South Africa and Malawi to a low of 0.29 in Rwanda, all in the mid-1980s.

Table 3. Selected Statistics on Income Inequality in sub-Saharan Africa

Country	Year	Gini Index	Gini Calculation Based On	Coverage	Source
Botswana	1986	54.21	Expenditure	National	Chen et al. 1995
Burkina Faso	1995	39.00	Expenditure	National	World Bank, Africa Department
C. Afr. Rep.	1992	55.00	Expenditure	National	SAGE 1992
Cameroon	1983	49.00	Expenditure	National	WB Cameroon 1994
Côte d'Ivoire	1995	38.00	Expenditure	National	World Bank, Africa Department
Ethiopia	1996	44.20	Expenditure	National	World Bank, Africa Department
Gambia, the	1992	39.00	Expenditure	National	World Bank, Africa Department
Ghana	1992	33.91	Expenditure	National	WDR 1996
Guinea	1995	40.40	Expenditure	National	World Bank, Africa Department
Guinea Bissau	1991	56.12	Expenditure	National	Chen et al. 1995
Kenya	1992	54.39	Expenditure	National	Chen et al. 1995
Madagascar	1993	43.44	Expenditure	National	Chen et al. 1995
Malawi	1993	62.00	Expenditure	National	World Bank, Africa Department
Mali	1994	54.00	Expenditure	National	World Bank, Africa Department
Mauritania	1995	37.80	Expenditure	National	World Bank, Africa Department
Mauritius	1991	36.69	Expenditure	National	WB Mauritius 1995
Niger	1992	36.10	Expenditure	National	WDR 1996
Nigeria	1993	37.47	Expenditure	National	WDR 1996
Rwanda	1983	28.90	Expenditure	National	Chen et al. 1995
Senegal	1991	54.12	Expenditure	National	Chen et al. 1995
Seychelles, the	1984	47.00	Expenditure	National	Khan 1995
South Africa	1993	62.30	Income	National	WDR 1996
Sudan, the	1968	38.72	Income	National	UN 1981
Tanzania	1993	38.10	Expenditure	National	WDR 1996
Uganda	1989	33.00	Expenditure	National	Chen et al. 1995
Uganda	1992	40.78	Expenditure	National	WDR 1996
Zambia	1996	52.40	Expenditure	National	World Bank, Africa Department
Zimbabwe	1990	56.83	Expenditure	National	Chen et al. 1995

Source: Deininger and Squire (2004)

Trends in Inequality in sub-Saharan Africa

Time series data from measures of income inequality such as the Gini Index are lacking in sub-Saharan Africa. This absence makes it difficult to make any sensible predictions regarding trends in inequality in the region. However, using the “High Quality” dataset from Deininger and Squire (2004), we note that the Gini Index tends to be highly volatile.

Table 4 reports results regarding the dynamic nature of income inequality for countries for which there was two-period or more information. The trend in inequality shows significant variations over a short period. The balance of change in inequality in this dataset is rather mixed. However, in some countries where income inequality declined, it was by a considerable amount (e.g. Mauritius, Uganda, and Zambia).

Table 4. Percentage Change in the Measures of Inequality in sub-Saharan Africa

Country	Comparing	Gini	Quintile 1	Quintile 2	Quintile 3	Quintile 4
Côte d’Ivoire	1986 vs 1988	-10.48	19.16	13.96	10.01	6.37
Gabon	1975 vs 1977	6.60	-23.68	-19.35	-13.64	-7.67
Ghana	1988 vs 1992	-5.54	13.98	6.94	3.66	1.80
Mauritius	1980 vs 1991	-19.72	-5.23	11.11	-6.08	-5.79
Nigeria	1986 vs 1993	1.22	-42.67	-32.57	-22.54	-9.14
Uganda	1989 vs 1992	23.58	-20.42	-17.08	-14.02	-10.68
Zambia	1976 vs 1991	-14.69	50.54	35.27	25.26	15.88

Source: Deininger and Squire (2004)

Conclusion

Despite the poor quality of the data and the measurement problems highlighted, the points that should be taken from this paper are as follows. First, inequality in sub-Saharan Africa is considerable, approaching levels seen in Latin America. Second, overall, income inequality seems to have declined moderately from the 1970s to the mid 1990s. Third and not surprising, inequality varies across countries and over time.

Category: Human Development

Sub-Category: Health and Sanitation

INDICATOR: LIFE EXPECTANCY AT BIRTH (YEARS)

Life expectancy at birth is included in the Index as a key indicator of health outcomes. Figures are World Bank staff estimates based on various sources and are drawn from the World Bank's World Development Indicators (WDI) 2008.¹ Figures indicate "the number of years a newborn infant would live if prevailing patterns of mortality at the time of its birth were to stay the same throughout its life."² Additional indicators in this sub-category measure other aspects of health outcomes that might lead to changes in prevailing patterns of mortality.

In 2006, average life expectancy for the forty-eight countries in the region was almost 53 years—roughly equivalent to life expectancy in Ethiopia, Kenya, and Namibia. Countries with the longest life expectancy included Mauritius (73 years), the Seychelles (72 years), and Cape Verde (71 years). Countries with the shortest life expectancies included Swaziland, Zambia, Sierra Leone, Angola, Mozambique, Zimbabwe, and Lesotho—all with life expectancies of less than 43 years.

Other sources consulted for this indicator include the World Health Organization's (WHO) *World Health Report*; UNDP's *Human Development Report*; and the OECD and African Development Bank's *African Economic Outlook*. Life expectancy at birth is one of the four indicators used to calculate the UNDP's Human Development Index (HDI).

Technical Notes

The WDI's notes are as follows:

Life expectancy at birth indicates the number of years a newborn infant would live if prevailing patterns of mortality at the time of its birth were to stay the same throughout its life. World Bank staff estimates from various sources including census reports, the United Nations Population Division's World Population Prospects, national statistical offices, household surveys conducted by national agencies, and Macro International.³

1 Last accessed 25 July 2008. The Index is based on all WDI figures current as of this date. Note that WDI figures are adjusted periodically, so the figures used by the Index in this year may differ slightly from those in previous years.

2 WDI notes on this indicator, last accessed 25 July 2008.

3 Last accessed 25 July 2008.

Life Expectancy at Birth (years)

World Bank, World Development Indicators

	SCALED DATA:											
	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	41.0	41.0	42.0	42.4	45	46	44	45	5.4	5.4	8.4	9.4
Benin	54.5	54.3	55.7	56.2	14	16	16	16	45.1	44.7	48.8	50.1
Botswana	48.9	46.5	49.0	49.8	28	33	30	31	28.8	21.8	28.9	31.3
Burkina Faso	50.4	50.5	51.5	51.9	25	24	24	25	33.1	33.5	36.4	37.4
Burundi	46.5	47.3	48.6	49.1	35	30	31	32	21.5	23.9	27.8	29.1
Cameroon	50.8	49.8	50.2	50.3	24	26	28	30	34.2	31.4	32.4	32.7
Cape Verde	69.2	69.8	70.7	71.0	3	3	3	3	88.4	90.2	92.8	93.6
Central African Republic	44.4	43.2	44.1	44.4	41	44	41	41	15.3	12.1	14.6	15.4
Chad	50.9	50.5	50.6	50.6	23	25	27	29	34.6	33.4	33.6	33.7
Comoros	60.7	61.4	62.6	63.2	7	7	6	6	63.4	65.3	69.1	70.8
Congo	52.9	52.9	54.3	54.8	19	19	18	18	40.5	40.5	44.6	46.0
Congo, Democratic Rep.	44.0	44.9	45.8	46.1	42	38	38	38	14.2	17.0	19.6	20.5
Cote d'Ivoire	47.4	46.9	47.8	48.1	32	31	32	33	24.3	22.8	25.4	26.3
Djibouti	53.3	53.3	54.2	54.5	17	18	19	19	41.5	41.7	44.2	45.1
Equatorial Guinea	48.9	49.3	50.7	51.1	29	28	26	26	28.6	29.9	33.8	35.1
Eritrea	54.4	55.1	56.8	57.3	15	14	13	13	44.8	46.9	51.8	53.4
Ethiopia	50.2	50.7	52.0	52.5	26	23	23	23	32.4	34.0	37.9	39.2
Gabon	58.2	56.7	56.7	56.7	9	12	14	14	56.1	51.7	51.7	51.7
Gambia	57.2	58.0	58.9	59.1	11	9	9	9	52.9	55.5	58.0	58.8
Ghana	58.5	58.4	59.4	59.7	8	8	8	8	56.8	56.7	59.5	60.4
Guinea	52.8	53.7	55.1	55.5	20	17	17	17	40.0	42.6	46.7	48.1
Guinea-Bissau	45.2	45.5	46.0	46.2	38	36	37	37	17.9	18.6	20.2	20.7
Kenya	52.3	51.0	52.8	53.4	21	22	21	21	38.8	34.7	40.2	42.0
Lesotho	48.8	44.4	43.3	42.9	30	39	42	42	28.3	15.5	12.2	11.1
Liberia	43.1	43.7	44.9	45.3	43	42	40	40	11.7	13.5	16.9	18.0
Madagascar	56.3	57.3	58.6	59.0	12	11	10	10	50.5	53.2	57.1	58.3
Malawi	46.0	45.0	47.0	47.6	36	37	35	35	20.2	17.3	23.0	24.9
Mali	50.9	51.7	53.3	53.8	22	20	20	20	34.6	36.8	41.5	43.0
Mauritania	61.5	62.2	63.4	63.7	5	5	5	5	65.6	67.8	71.2	72.3
Mauritius	71.7	72.0	73.0	73.2	2	2	1	1	95.6	96.5	99.5	100.0
Mozambique	44.9	44.0	42.8	42.5	40	40	43	44	16.9	14.2	10.9	9.7
Namibia	54.4	51.4	52.2	52.5	16	21	22	22	44.7	36.0	38.4	39.2
Niger	53.2	54.5	55.9	56.4	18	15	15	15	41.4	45.2	49.4	50.8
Nigeria	46.9	46.6	46.7	46.8	33	32	36	36	22.9	21.9	22.3	22.4
Rwanda	40.4	43.3	45.0	45.6	47	43	39	39	3.7	12.3	17.3	19.0
Sao Tome and Principe	63.9	64.3	65.0	65.2	4	4	4	4	72.7	73.8	75.9	76.6
Senegal	61.0	61.6	62.5	62.8	6	6	7	7	64.3	66.0	68.5	69.4
Seychelles	72.3	73.0	72.1	72.2	1	1	2	2	97.6	99.4	96.9	97.2
Sierra Leone	40.6	41.0	41.9	42.2	46	45	46	46	4.1	5.4	8.2	9.1
Somalia	45.1	45.9	47.2	47.7	39	35	34	34	17.4	19.9	23.8	25.1
South Africa	48.5	46.5	47.7	50.7	31	34	33	28	27.5	21.5	25.0	34.0
Sudan	56.0	56.4	57.7	58.1	13	13	12	12	49.4	50.6	54.4	55.7
Swaziland	45.4	43.7	41.5	40.8	37	41	47	48	18.5	13.5	6.8	4.8
Tanzania	49.1	49.6	51.3	51.9	27	27	25	24	29.4	30.7	35.8	37.5
Togo	57.9	57.5	58.0	58.2	10	10	11	11	55.0	54.0	55.5	56.0
Uganda	46.5	47.8	50.0	50.7	34	29	29	27	21.6	25.3	31.9	34.1
Zambia	39.6	39.1	41.0	41.7	48	48	48	47	1.3	0.0	5.6	7.4
Zimbabwe	42.7	39.9	42.0	42.7	44	47	45	43	10.4	2.4	8.4	10.4

Category: Human Development

Sub-Category: Health and Sanitation

INDICATOR: CHILD MORTALITY

Child mortality under age five is included in the Index as a second key indicator of health outcomes, focusing on children's well-being. The importance of reducing child mortality is also underscored in the Millennium Development Goals (MDGs), which include it as Goal 4.

Our figures are based on new research published in *The Lancet* by a team of researchers from the University of Washington's Institute for Health Metrics and Evaluation (IHME), the University of Queensland, and WHO (see Christopher Murray, Thomas Laasko, Kenji Shibuya, Kenneth Hill, and Alan D. Lopez, "Can We Achieve Millennium Development Goal 4? New Analysis of Country Trends and Forecasts of Under-5 Mortality to 2015," *The Lancet*, CCCLXX [2007], 1040–1054). Data are available on the IHME website (<http://www.healthmetricsandevaluation.org/im.php>).¹

The Index employs annual projections and estimates from the IHME based on Murray et al.'s, analysis and re-analysis of data from surveys, censuses, and vital registration systems from UNICEF and WHO databases and other sources.² (The IHME dataset also includes analysis of uncertainty around these point estimates and other information not used here.)

The 2007 Index included an indicator of infant mortality instead of child mortality. We have revised this indicator after consultations with Murray and others based on their reports that child mortality is a more appropriate indicator than infant mortality in high-mortality settings.³

In 2006, average estimated child mortality across the forty-six African countries included in the dataset was about 129 per 1,000 live births. Across the years of the Index, child mortality was consistently worst in Sierra Leone and Angola, which ranked 46th and 45th, respectively in each year out of the 46 countries for which estimates were available. Estimates suggest improvement in both countries between 2000 and 2006. However, given uncertainty in the underlying data, trends in these *estimates* should be interpreted with caution. (Technically sophisticated readers may refer to the dataset, which includes 95 percent confidence intervals for point estimates.)

Countries with the consistently best child mortality estimates include Mauritius (13.3 per 1,000 live births in 2006), Cape Verde (32.8 in 2006), and Botswana (38.8 in 2006). Those countries ranked first, second, and third, respectively, in all years of the Index thus far.

Technical Notes

Estimates are unavailable for Djibouti and the Seychelles.

1 Last accessed 29 July 2008. Readers may also wish to refer to data provided on the MDG Monitor website for 1990, 1995, 2000, 2004, and 2005 (available at <http://www.mdgmonitor.org/> [last accessed 28 April 2008]). The Murray et al., dataset is based on re-assessment of the data used by the MDG Monitor.

2 On methods, see Murray et al., pp. 1041–1045. Details of particular sources for each country are provided in the dataset on the IHME site.

3 See Kenneth Hill and Agbessi Amouzou, "Trends in Child Mortality, 1960 to 2000," in Dean T. Jamison et al. (eds.), *Disease and Mortality in Sub-Saharan Africa* (Washington D.C., 2006), 15–30; Kenneth Hill, "Age Patterns of Under-Five Mortality in the Developing World," *Population Bulletin of the United Nations* (New York, 1995).

Child Mortality per 1,000

Institute for Health Metrics and Evaluation and Murray et al. 2007

	RAW DATA:				SCALED DATA:							
					Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	247.3	245.5	242.5	241.6	45	45	45	45	6.6	7.3	8.5	8.9
Benin	147.5	141.9	133.6	130.8	27	27	26	26	46.4	48.7	52.0	53.1
Botswana	45.2	43.0	39.8	38.8	3	3	3	3	87.3	88.1	89.4	89.8
Burkina Faso	180.9	175.5	168.2	165.8	33	33	33	32	33.1	35.2	38.2	39.1
Burundi	192.0	191.1	190.3	189.8	38	37	37	39	28.7	29.0	29.3	29.5
Cameroon	134.0	131.9	127.8	126.5	24	25	24	24	51.8	52.7	54.3	54.8
Cape Verde	43.3	39.5	34.3	32.8	2	2	2	2	88.0	89.5	91.6	92.2
Central African Republic	156.3	153.4	149.4	148.2	29	30	30	30	42.9	44.1	45.7	46.1
Chad	189.1	185.0	180.1	178.4	36	36	36	36	29.8	31.5	33.4	34.1
Comoros	69.7	64.5	57.3	55.1	6	5	5	5	77.5	79.6	82.4	83.3
Congo	114.9	117.7	121.7	123.0	17	20	23	23	59.4	58.3	56.7	56.2
Congo, Democratic Rep.	214.5	216.1	218.2	218.9	42	42	43	43	19.7	19.0	18.2	17.9
Cote d'Ivoire	124.4	120.0	114.3	112.4	21	21	20	20	55.6	57.4	59.7	60.4
Djibouti												
Equatorial Guinea	195.6	200.1	207.0	209.4	39	39	41	42	27.2	25.4	22.7	21.7
Eritrea	89.6	81.5	70.5	67.2	10	9	8	7	69.5	72.8	77.2	78.5
Ethiopia	134.1	128.4	120.0	117.3	25	23	21	21	51.8	54.1	57.4	58.5
Gabon	81.5	79.3	75.9	74.9	8	8	9	9	72.8	73.7	75.0	75.4
Gambia	118.2	111.6	102.3	99.4	19	17	17	17	58.1	60.8	64.5	65.6
Ghana	101.7	97.9	92.4	90.7	13	12	12	12	64.7	66.2	68.4	69.1
Guinea	159.8	149.6	135.6	131.1	30	29	28	27	41.5	45.6	51.2	53.0
Guinea-Bissau	213.4	204.8	192.8	189.0	41	41	39	38	20.1	23.6	28.3	29.9
Kenya	98.6	98.3	96.1	95.4	12	13	15	15	65.9	66.1	66.9	67.2
Lesotho	86.3	83.7	79.2	77.6	9	10	10	10	70.9	71.9	73.7	74.3
Liberia	182.9	178.8	172.7	170.8	34	35	35	35	32.3	33.9	36.4	37.1
Madagascar	110.9	103.6	95.6	93.1	16	15	14	14	61.0	64.0	67.1	68.1
Malawi	155.2	146.0	133.6	129.9	28	28	26	25	43.4	47.0	52.0	53.5
Mali	209.9	202.2	191.3	187.7	40	40	38	37	21.5	24.6	28.9	30.4
Mauritania	108.2	104.1	98.8	97.2	15	16	16	16	62.1	63.8	65.9	66.5
Mauritius	17.1	15.7	13.9	13.3	1	1	1	1	98.5	99.0	99.8	100.0
Mozambique	183.5	178.2	171.6	169.4	35	34	34	34	32.1	34.2	36.8	37.7
Namibia	53.8	51.1	47.4	46.2	4	4	4	4	83.8	84.9	86.4	86.9
Niger	238.6	227.2	209.4	205.3	44	44	42	41	10.1	14.6	21.7	23.4
Nigeria	190.9	192.1	192.8	193.1	37	38	39	40	29.1	28.6	28.3	28.2
Rwanda	173.7	171.4	168.1	167.1	32	32	32	33	36.0	36.9	38.2	38.6
Sao Tome and Principe	129.2	129.9	131.2	131.6	22	24	25	28	53.7	53.5	52.9	52.8
Senegal	117.0	111.9	104.2	101.4	18	18	18	18	58.6	60.6	63.7	64.8
Seychelles												
Sierra Leone	263.8	259.9	253.7	251.5	46	46	46	46	0.0	1.6	4.0	4.9
Somalia	220.6	220.3	219.9	219.8	43	43	44	44	17.2	17.4	17.5	17.6
South Africa	67.3	67.8	68.5	68.7	5	6	7	8	78.4	78.2	78.0	77.9
Sudan	102.5	99.2	94.4	93.0	14	14	13	13	64.4	65.7	67.6	68.2
Swaziland	90.7	86.6	80.8	79.0	11	11	11	11	69.1	70.7	73.1	73.8
Tanzania	130.8	127.0	121.3	119.3	23	22	22	22	53.1	54.6	56.9	57.7
Togo	120.9	116.1	109.7	107.5	20	19	19	19	57.1	59.0	61.5	62.4
Uganda	144.3	141.0	135.9	134.1	26	26	29	29	47.7	49.0	51.1	51.8
Zambia	165.5	164.6	163.8	163.6	31	31	31	31	39.2	39.6	39.9	40.0
Zimbabwe	70.6	69.2	67.0	66.3	7	7	6	6	77.1	77.7	78.6	78.8

Category: Human Development

Sub-Category: Health and Sanitation

INDICATOR: MATERNAL MORTALITY RATIO

Maternal mortality is included in the Index as a third key indicator of health outcomes. The importance of improving maternal health is also underscored in the Millennium Development Goals, where it is included as Goal 5.

The Index measures maternal mortality using the Maternal Mortality Ratio (MMR), i.e., “the number of women who die during pregnancy and childbirth, per 100,000 live births.”¹ It employs standard estimates of the MMR developed by WHO, UNICEF, UNFPA, and The World Bank for 2005.² Estimates for 2005 are drawn from the World Bank’s World Development Indicators.³ Several other key international sources, including UNICEF’s *State of the World’s Children 2007* and *2008* reports, were also consulted. In addition, official statistics on maternal mortality were collected locally. These figures are not used here because such estimates are not comparable across countries.

Only a single estimate is available for each country because these 2005 MMR estimates are not comparable to the last published set of estimates for 2000.⁴ Users of the 2005 estimates are cautioned against using these data to assess changes over time for particular countries. Other projects, such as the Millennium Development Goals Indicators, also use these estimates and thus also face similar constraints in assessing progress over time.

For 2005, the average MMR is about 825 deaths per 100,000 live births. The best maternal mortality ratios are in Mauritius, Cape Verde, and Namibia, while the worst are in Sierra Leone and Niger.

Technical Notes

Estimates are available only for 2005. For lack of better information, these data are used to calculate the Index in 2000, 2002, and 2006 as well and are noted in italics.

Estimates are unavailable for São Tomé and Príncipe and the Seychelles.⁵ Nationally reported (unadjusted) figures were 57 and 100, respectively, in 2000. These estimates suggest that both countries have MMR rates among the best in the region (consistent with their other scores in the category of Human Development).

1 From World Development Indicators, last accessed 29 July 2008. For further discussion, see Khama O. Rogo, John Oucho, and Philip Mwalali, “Maternal Mortality,” in Dean T. Jamison, et al. (eds.), *Disease and Mortality in Sub-Saharan Africa* (Washington, D.C., 2006), 223–236.

2 WHO, UNICEF, UNFPA, and The World Bank (prepared by Lale Say and Mie Inoue of WHO, and Samuel Mills and Emi Suzuki of The World Bank), *Maternal Mortality in 2005: Estimates Developed by WHO, UNICEF, UNFPA, and The World Bank* (Geneva, 2007).

3 Last accessed 29 July 2008.

4 WHO, UNICEF, and UNFPA (prepared by Carla AbouZahr of WHO and Tessa Wardlaw of UNICEF on the basis of a technical paper by Kenneth Hill and Yoonjoung Choi), *Maternal Mortality in 2000: Estimates Developed by WHO, UNICEF, UNFPA* (Geneva, 2004).

5 In the 2007 Index, we included unadjusted figures for 2000 for São Tomé and Príncipe and the Seychelles, based on nationally reported (unadjusted) figures reported in UNICEF’s *State of the World’s Children 2007*, Table 8. We chose not to do so in the 2008 Index for reasons of data comparability.

Maternal Mortality Ratio (MMR) (per 100,000 live births)

Estimates developed by WHO, UNICEF, UNFPA, and The World Bank (as reported in the WDI 2008)

SCALED DATA:

	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	1400	1400	1400	1400	42	42	42	42	33.6	33.6	33.6	33.6
Benin	840	840	840	840	26	26	26	26	60.4	60.4	60.4	60.4
Botswana	380	380	380	380	4	4	4	4	82.5	82.5	82.5	82.5
Burkina Faso	700	700	700	700	20	20	20	20	67.1	67.1	67.1	67.1
Burundi	1100	1100	1100	1100	35	35	35	35	48.0	48.0	48.0	48.0
Cameroon	1000	1000	1000	1000	34	34	34	34	52.8	52.8	52.8	52.8
Cape Verde	210	210	210	210	2	2	2	2	90.6	90.6	90.6	90.6
Central African Republic	980	980	980	980	32	32	32	32	53.7	53.7	53.7	53.7
Chad	1500	1500	1500	1500	44	44	44	44	28.8	28.8	28.8	28.8
Comoros	400	400	400	400	6	6	6	6	81.5	81.5	81.5	81.5
Congo	740	740	740	740	22	22	22	22	65.2	65.2	65.2	65.2
Congo, Democratic Rep.	1100	1100	1100	1100	35	35	35	35	48.0	48.0	48.0	48.0
Cote d'Ivoire	810	810	810	810	23	23	23	23	61.9	61.9	61.9	61.9
Djibouti	650	650	650	650	17	17	17	17	69.5	69.5	69.5	69.5
Equatorial Guinea	680	680	680	680	18	18	18	18	68.1	68.1	68.1	68.1
Eritrea	450	450	450	450	8	8	8	8	79.1	79.1	79.1	79.1
Ethiopia	720	720	720	720	21	21	21	21	66.2	66.2	66.2	66.2
Gabon	520	520	520	520	12	12	12	12	75.8	75.8	75.8	75.8
Gambia	690	690	690	690	19	19	19	19	67.6	67.6	67.6	67.6
Ghana	560	560	560	560	15	15	15	15	73.9	73.9	73.9	73.9
Guinea	910	910	910	910	28	28	28	28	57.1	57.1	57.1	57.1
Guinea-Bissau	1100	1100	1100	1100	35	35	35	35	48.0	48.0	48.0	48.0
Kenya	560	560	560	560	15	15	15	15	73.9	73.9	73.9	73.9
Lesotho	960	960	960	960	30	30	30	30	54.7	54.7	54.7	54.7
Liberia	1200	1200	1200	1200	40	40	40	40	43.2	43.2	43.2	43.2
Madagascar	510	510	510	510	10	10	10	10	76.3	76.3	76.3	76.3
Malawi	1100	1100	1100	1100	35	35	35	35	48.0	48.0	48.0	48.0
Mali	970	970	970	970	31	31	31	31	54.2	54.2	54.2	54.2
Mauritania	820	820	820	820	24	24	24	24	61.4	61.4	61.4	61.4
Mauritius	15	15	15	15	1	1	1	1	100.0	100.0	100.0	100.0
Mozambique	520	520	520	520	12	12	12	12	75.8	75.8	75.8	75.8
Namibia	210	210	210	210	2	2	2	2	90.6	90.6	90.6	90.6
Niger	1800	1800	1800	1800	45	45	45	45	14.4	14.4	14.4	14.4
Nigeria	1100	1100	1100	1100	35	35	35	35	48.0	48.0	48.0	48.0
Rwanda	1300	1300	1300	1300	41	41	41	41	38.4	38.4	38.4	38.4
Sao Tome and Principe												
Senegal	980	980	980	980	32	32	32	32	53.7	53.7	53.7	53.7
Seychelles												
Sierra Leone	2100	2100	2100	2100	46	46	46	46	0.0	0.0	0.0	0.0
Somalia	1400	1400	1400	1400	42	42	42	42	33.6	33.6	33.6	33.6
South Africa	400	400	400	400	6	6	6	6	81.5	81.5	81.5	81.5
Sudan	450	450	450	450	8	8	8	8	79.1	79.1	79.1	79.1
Swaziland	390	390	390	390	5	5	5	5	82.0	82.0	82.0	82.0
Tanzania	950	950	950	950	29	29	29	29	55.2	55.2	55.2	55.2
Togo	510	510	510	510	10	10	10	10	76.3	76.3	76.3	76.3
Uganda	550	550	550	550	14	14	14	14	74.3	74.3	74.3	74.3
Zambia	830	830	830	830	25	25	25	25	60.9	60.9	60.9	60.9
Zimbabwe	880	880	880	880	27	27	27	27	58.5	58.5	58.5	58.5

Category: Human Development

Sub-Category: Health and Sanitation

INDICATOR: UNDERNOURISHMENT

As a measure of food security, specifically deprivation, the Index includes an indicator assessing the prevalence of undernourishment in a population (i.e., the percentage of a population whose food consumption is insufficient to meet dietary requirements). Estimates are from the Food and Agricultural Organization (FAO), as reported in the WDI 2008.¹

There are a number of different indicators relevant to the important area of food security. FAO's Committee on World Food Security provides a useful introduction.² A detailed discussion of measurement and assessment can be found in the proceedings of the Interagency Initiative to Promote Information and Mapping Systems on Food Security and Vulnerability, "Measurement and Assessment of Food Deprivation and Undernutrition," Rome, 26–28 June 2002.³

The importance of eradicating extreme poverty and hunger is also highlighted in the Millennium Development Goals (MDGs), as Goal 1. The MDG's Target 2 is to "Halve, between 1990 and 2015, the proportion of people who suffer from Hunger." The MDG Indicators focus on the percentage of children under five who are moderately or severely underweight; the percentage of children under five who are severely underweight; the percentage of the population that is undernourished; and the number of people in the population who are undernourished. These measures are also highly relevant to the Index of African Governance, but are not used directly in the Index because of concerns about missing data.

On average across sub-Saharan African countries, the most recent estimates available suggest that about 30.5 percent of the population is undernourished. The lowest estimates are found in South Africa (2.5 percent), while the highest are in Eritrea (75 percent). At least 50 percent of the population is estimated to be undernourished in the Democratic Republic of the Congo, Burundi, the Comoros, Sierra Leone, and Liberia.

Technical Notes

FAO estimates are unavailable for all years. FAO estimates for 2003 are given as rough estimates for 2000 and 2002. FAO estimates for 2004 are given as rough estimates for 2005 and 2006.

FAO estimates are unavailable for Cape Verde, Equatorial Guinea, and Somalia.

1 Last accessed 29 July 2008.

2 See http://www.fao.org/unfao/govbodies/cfs/indicators_en.htm (last accessed 8 August 2008). See also FAO's Special Programme for Food Security (<http://www.fao.org/spfs/en/>).

3 Available at <http://www.fao.org/docrep/005/y4249e/y4249e00.htm> (last accessed 8 August 2008).

Undernourishment (% of Population)

FAO (as reported in the WDI 2008)

	SCALED DATA:											
	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	38	38	35	35	32	32	29	29	51.0	51.0	55.2	55.2
Benin	14	14	12	12	10	10	9	9	84.1	84.1	86.9	86.9
Botswana	30	30	32	32	24	24	25	25	62.1	62.1	59.3	59.3
Burkina Faso	17	17	15	15	12	12	12	12	80.0	80.0	82.8	82.8
Burundi	67	67	66	66	43	43	43	43	11.0	11.0	12.4	12.4
Cameroon	25	25	26	26	18	18	20	20	69.0	69.0	67.6	67.6
Cape Verde												
Central African Republic	45	45	44	44	35	35	34	34	41.4	41.4	42.8	42.8
Chad	33	33	35	35	27	27	29	29	57.9	57.9	55.2	55.2
Comoros	62	62	60	60	42	42	42	42	17.9	17.9	20.7	20.7
Congo	34	34	33	33	28	28	27	27	56.6	56.6	57.9	57.9
Congo, Democratic Rep.	72	72	74	74	44	44	44	44	4.1	4.1	1.4	1.4
Cote d'Ivoire	14	14	13	13	10	10	10	10	84.1	84.1	85.5	85.5
Djibouti	26	26	24	24	20	20	16	16	67.6	67.6	70.3	70.3
Equatorial Guinea												
Eritrea	73	73	75	75	45	45	45	45	2.8	2.8	0.0	0.0
Ethiopia	46	46	46	46	38	38	37	37	40.0	40.0	40.0	40.0
Gabon	5	5	5	5	2	2	2	2	96.6	96.6	96.6	96.6
Gambia	27	27	29	29	21	21	22	22	66.2	66.2	63.4	63.4
Ghana	12	12	11	11	7	7	8	8	86.9	86.9	88.3	88.3
Guinea	24	24	24	24	17	17	16	16	70.3	70.3	70.3	70.3
Guinea-Bissau	37	37	39	39	31	31	33	33	52.4	52.4	49.7	49.7
Kenya	31	31	31	31	25	25	24	24	60.7	60.7	60.7	60.7
Lesotho	12	12	13	13	7	7	10	10	86.9	86.9	85.5	85.5
Liberia	49	49	50	50	40	40	40	40	35.9	35.9	34.5	34.5
Madagascar	38	38	38	38	32	32	32	32	51.0	51.0	51.0	51.0
Malawi	34	34	35	35	28	28	29	29	56.6	56.6	55.2	55.2
Mali	28	28	29	29	23	23	22	22	64.8	64.8	63.4	63.4
Mauritania	10	10	10	10	6	6	6	6	89.7	89.7	89.7	89.7
Mauritius	6	6	5	5	3	3	2	2	95.2	95.2	96.6	96.6
Mozambique	45	45	44	44	35	35	34	34	41.4	41.4	42.8	42.8
Namibia	23	23	24	24	15	15	16	16	71.7	71.7	70.3	70.3
Niger	32	32	32	32	26	26	25	25	59.3	59.3	59.3	59.3
Nigeria	9	9	9	9	4	4	4	4	91.0	91.0	91.0	91.0
Rwanda	36	36	33	33	30	30	27	27	53.8	53.8	57.9	57.9
Sao Tome and Principe	12	12	10	10	7	7	6	6	86.9	86.9	89.7	89.7
Senegal	23	23	20	20	15	15	14	14	71.7	71.7	75.9	75.9
Seychelles	9	9	9	9	4	4	4	4	91.0	91.0	91.0	91.0
Sierra Leone	50	50	51	51	41	41	41	41	34.5	34.5	33.1	33.1
Somalia												
South Africa	2.5	2.5	2.5	2.5	1	1	1	1	100.0	100.0	100.0	100.0
Sudan	27	27	26	26	21	21	20	20	66.2	66.2	67.6	67.6
Swaziland	19	19	22	22	13	13	15	15	77.2	77.2	73.1	73.1
Tanzania	44	44	44	44	34	34	34	34	42.8	42.8	42.8	42.8
Togo	25	25	24	24	18	18	16	16	69.0	69.0	70.3	70.3
Uganda	19	19	19	19	13	13	13	13	77.2	77.2	77.2	77.2
Zambia	47	47	46	46	39	39	37	37	38.6	38.6	40.0	40.0
Zimbabwe	45	45	47	47	35	35	39	39	41.4	41.4	38.6	38.6

Category: Human Development

Sub-Category: Health and Sanitation

INDICATORS: IMMUNIZATION, MEASLES, AND DPT

Immunization is an important public health intervention, carried out directly by governmental agencies, by international organizations, and by NGOs. The Index considers both immunization against measles and immunization against diphtheria, pertussis, and tetanus (DPT).

Statistics are based on information from the World Health Organization and the United Nations Children's Fund, as reported by the World Bank's World Development Indicators (WDI) 2008. Each indicator measures the percentage of children aged 12–23 months who have been immunized.¹ In the case of measles, the indicator “measures the percentage ... who received vaccinations before 12 months or at any time before the survey” and “a child is considered adequately immunized against measles after receiving one dose of vaccine.”² In the case of DPT, the indicator “measures the percentage of children ... who received vaccinations before 12 months or at any time before the survey” and “a child is considered adequately immunized ... after receiving three doses of vaccine.”³

In 2006, immunization for measles rates range from a low of 23 percent (Chad) to a high of 99 percent (Mauritius and the Seychelles). Across countries in the region, the average rate of immunization for measles among children is 73.2 percent, roughly equivalent to rates in Cameroon, the Democratic Republic of the Congo, and the Sudan.

Immunization rates for DPT range from a low of 20 percent (Chad) to a high of 99 percent (Malawi, Rwanda, São Tomé and Príncipe, the Seychelles, and South Africa). Across countries in the region, average rates of immunization for DPT are about 75.3 percent.

1 Data last accessed 25 July 2008.

2 WDI notes, last accessed 25 July 2008.

3 WDI notes, last accessed 25 July 2008.

Immunization, Measles (% of Children Ages 12–23 Months)

WHO and UNICEF (as reported in the WDI 2008)

	SCALED DATA:											
	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	41	74	45	48	41	18	45	44	23.7	67.1	28.9	32.9
Benin	68	78	85	89	23	12	11	10	59.2	72.4	81.6	86.8
Botswana	90	90	90	90	2	2	6	8	88.2	88.2	88.2	88.2
Burkina Faso	59	64	84	88	26	25	14	12	47.4	53.9	80.3	85.5
Burundi	75	75	75	75	11	17	23	24	68.4	68.4	68.4	68.4
Cameroon	49	53	68	73	36	37	30	25	34.2	39.5	59.2	65.8
Cape Verde	80	85	65	65	8	6	32	34	75.0	81.6	55.3	55.3
Central African Republic	36	35	35	35	44	47	46	46	17.1	15.8	15.8	15.8
Chad	28	25	23	23	48	48	48	48	6.6	2.6	0.0	0.0
Comoros	70	71	80	66	19	21	20	32	61.8	63.2	75.0	56.6
Congo	34	37	56	66	46	45	40	32	14.5	18.4	43.4	56.6
Congo, Democratic Rep.	46	45	70	73	39	42	26	25	30.3	28.9	61.8	65.8
Cote d'Ivoire	73	56	51	73	15	33	42	25	65.8	43.4	36.8	65.8
Djibouti	50	62	65	67	35	27	32	29	35.5	51.3	55.3	57.9
Equatorial Guinea	51	51	51	51	34	38	42	43	36.8	36.8	36.8	36.8
Eritrea	86	87	95	95	3	5	3	3	82.9	84.2	94.7	94.7
Ethiopia	52	54	59	63	32	35	37	35	38.2	40.8	47.4	52.6
Gabon	55	55	55	55	31	34	41	42	42.1	42.1	42.1	42.1
Gambia	85	90	84	95	4	2	14	3	81.6	88.2	80.3	94.7
Ghana	84	83	83	85	6	10	18	14	80.3	78.9	78.9	81.6
Guinea	42	46	59	67	40	41	37	29	25.0	30.3	47.4	57.9
Guinea-Bissau	59	47	80	60	26	40	20	39	47.4	31.6	75.0	48.7
Kenya	75	72	69	77	11	19	28	22	68.4	64.5	60.5	71.1
Lesotho	74	78	85	85	13	12	11	14	67.1	72.4	81.6	81.6
Liberia	52	57	94	94	32	32	4	6	38.2	44.7	93.4	93.4
Madagascar	56	58	59	59	30	30	37	40	43.4	46.1	47.4	47.4
Malawi	73	69	82	85	15	22	19	14	65.8	60.5	77.6	81.6
Mali	49	64	86	86	36	25	9	13	34.2	53.9	82.9	82.9
Mauritania	62	81	61	62	24	11	35	37	51.3	76.3	50.0	51.3
Mauritius	84	84	98	99	6	8	2	1	80.3	80.3	98.7	100.0
Mozambique	71	77	77	77	18	15	22	22	63.2	71.1	71.1	71.1
Namibia	69	68	73	63	21	24	25	35	60.5	59.2	65.8	52.6
Niger	34	39	47	47	46	44	44	45	14.5	21.1	31.6	31.6
Nigeria	35	36	62	62	45	46	34	37	15.8	17.1	51.3	51.3
Rwanda	74	69	89	95	13	22	7	3	67.1	60.5	86.8	94.7
Sao Tome and Principe	69	85	88	85	21	6	8	14	60.5	81.6	85.5	81.6
Senegal	48	54	74	80	38	35	24	21	32.9	40.8	67.1	75.0
Seychelles	97	98	99	99	1	1	1	1	97.4	98.7	100.0	100.0
Sierra Leone	37	62	67	67	43	27	31	29	18.4	51.3	57.9	57.9
Somalia	38	45	35	35	42	42	46	46	19.7	28.9	15.8	15.8
South Africa	77	78	84	85	10	12	14	14	71.1	72.4	80.3	81.6
Sudan	58	58	69	73	28	30	28	25	46.1	46.1	60.5	65.8
Swaziland	72	72	60	57	17	19	36	41	64.5	64.5	48.7	44.7
Tanzania	78	89	91	93	9	4	5	7	72.4	86.8	89.5	92.1
Togo	58	48	70	83	28	39	26	20	46.1	32.9	61.8	78.9
Uganda	61	77	86	89	25	15	9	10	50.0	71.1	82.9	86.8
Zambia	85	84	84	84	4	8	14	19	81.6	80.3	80.3	80.3
Zimbabwe	70	60	85	90	19	29	11	8	61.8	48.7	81.6	88.2

Immunization, DPT (% of Children Ages 12–23 Months)

WHO and UNICEF (as reported in the WDI 2008)

	RAW DATA:				SCALED DATA:							
					Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	31	47	47	44	45	38	42	42	13.9	34.2	34.2	30.4
Benin	79	79	93	93	11	16	9	11	74.7	74.7	92.4	92.4
Botswana	97	97	97	97	2	2	2	6	97.5	97.5	97.5	97.5
Burkina Faso	57	69	96	95	27	24	7	9	46.8	62.0	96.2	94.9
Burundi	74	74	74	74	20	20	28	29	68.4	68.4	68.4	68.4
Cameroon	53	63	80	81	31	27	22	20	41.8	54.4	75.9	77.2
Cape Verde	86	94	73	72	6	3	29	31	83.5	93.7	67.1	65.8
Central African Republic	37	40	40	40	41	42	43	43	21.5	25.3	25.3	25.3
Chad	24	23	20	20	47	48	48	48	5.1	3.8	0.0	0.0
Comoros	70	89	80	69	22	6	22	36	63.3	87.3	75.9	62.0
Congo	33	41	65	79	42	41	37	24	16.5	26.6	57.0	74.7
Congo, Democratic Rep.	40	43	73	77	37	40	29	26	25.3	29.1	67.1	72.2
Cote d'Ivoire	72	54	56	77	21	34	40	26	65.8	43.0	45.6	72.2
Djibouti	46	62	71	72	33	28	32	31	32.9	53.2	64.6	65.8
Equatorial Guinea	33	33	33	33	42	46	47	47	16.5	16.5	16.5	16.5
Eritrea	88	87	97	97	4	10	2	6	86.1	84.8	97.5	97.5
Ethiopia	56	61	69	72	29	29	35	31	45.6	51.9	62.0	65.8
Gabon	38	38	38	38	40	44	45	45	22.8	22.8	22.8	22.8
Gambia	83	90	88	95	8	5	13	9	79.7	88.6	86.1	94.9
Ghana	84	80	84	84	7	14	17	18	81.0	75.9	81.0	81.0
Guinea	45	46	68	71	34	39	36	35	31.6	32.9	60.8	64.6
Guinea-Bissau	42	50	80	77	36	37	22	26	27.8	38.0	75.9	72.2
Kenya	75	72	76	80	18	21	27	21	69.6	65.8	70.9	75.9
Lesotho	82	81	83	83	9	13	20	19	78.5	77.2	79.7	79.7
Liberia	55	51	87	88	30	36	14	15	44.3	39.2	84.8	86.1
Madagascar	57	60	61	61	27	30	39	40	46.8	50.6	51.9	51.9
Malawi	75	64	93	99	18	25	9	1	69.6	55.7	92.4	100.0
Mali	40	64	85	85	37	25	16	17	25.3	55.7	82.3	82.3
Mauritania	40	83	71	68	37	11	32	37	25.3	79.7	64.6	60.8
Mauritius	88	88	97	97	4	8	2	6	86.1	86.1	97.5	97.5
Mozambique	68	72	72	72	23	21	31	31	60.8	65.8	65.8	65.8
Namibia	79	77	86	74	11	17	15	29	74.7	72.2	83.5	68.4
Niger	31	34	39	39	45	45	44	44	13.9	17.7	24.1	24.1
Nigeria	24	25	54	54	47	47	41	41	5.1	6.3	43.0	43.0
Rwanda	90	88	95	99	3	8	8	1	88.6	86.1	94.9	100.0
Sao Tome and Principe	82	92	97	99	9	4	2	1	78.5	91.1	97.5	100.0
Senegal	52	60	84	89	32	30	17	14	40.5	50.6	81.0	87.3
Seychelles	98	99	99	99	1	1	1	1	98.7	100.0	100.0	100.0
Sierra Leone	44	52	64	64	35	35	38	39	30.4	40.5	55.7	55.7
Somalia	33	40	35	35	42	42	46	46	16.5	25.3	19.0	19.0
South Africa	79	82	97	99	11	12	2	1	74.7	78.5	97.5	100.0
Sudan	62	60	78	78	25	30	26	25	53.2	50.6	73.4	73.4
Swaziland	77	77	71	68	16	17	32	37	72.2	72.2	64.6	60.8
Tanzania	79	89	90	90	11	6	11	12	74.7	87.3	88.6	88.6
Togo	64	59	82	87	24	33	21	16	55.7	49.4	78.5	84.8
Uganda	58	72	84	80	26	21	17	21	48.1	65.8	81.0	75.9
Zambia	78	80	80	80	15	14	22	21	73.4	75.9	75.9	75.9
Zimbabwe	77	75	90	90	16	19	11	12	72.2	69.6	88.6	88.6

Category: Human Development

Sub-Category: Health and Sanitation

INDICATOR: HIV PREVALENCE

The highest HIV/AIDS rates in the world have been found in sub-Saharan Africa. HIV remains one of the most serious health risks in the region. This indicator assesses HIV prevalence, representing the percentage of people, 15–49 years old, who are infected with HIV. Estimates are drawn from the UNAIDS and WHO's *Report on the Global AIDS Epidemic*, as reported in the WDI 2008 for 2005.¹

Goal 6 of the Millennium Development Goals (MDGs) deals with combating HIV/AIDS, malaria, and other diseases. Target 7 is to “have halted by 2015 and begun to reverse the spread of HIV/AIDS.” Information on a number of related outcomes and risk factors can be found in the MDG Indicators, including data on AIDS deaths, HIV prevalence rate among pregnant women, and condom use.

Our data suggest an average HIV prevalence rate across African countries of 6.8 percent in 2005, ranging from a low of 0.1 percent in the Comoros to a high of 33.4 percent in Swaziland—over one-third of the population.

Technical Notes

Only 2003 and 2005 estimates were given for most countries. Figures for 2003 are thus given as estimates for 2000 and 2002, and figures for 2005 are given as estimates for 2006.²

For Ethiopia, 2003 figures are unavailable, so the 2005 figures are used for all years.

Estimates were unavailable for Cape Verde, Liberia, São Tomé and Príncipe, and the Seychelles.

1 Last accessed 2 August 2008. UNAIDS published its *2008 Report on the Global AIDS Epidemic* on 29 July 2008, which gives new estimates for 2001 and 2007. In general, these tend to be slightly lower than previously released estimates.

2 The WDI contains one figure for 2006, for Zimbabwe (18.1 percent). This figure is not given for 2006 in the interest of comparability.

HIV Prevalence (Percentage of People 15–49 Years Old Who Are Infected with HIV)

UNAIDS and WHO (as reported in the WDI 2008)

SCALED DATA:

	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	3.7	3.7	3.7	3.7	24	24	25	25	89.2	89.2	89.2	89.2
Benin	2.0	2.0	1.8	1.8	14	14	13	13	94.2	94.2	94.9	94.9
Botswana	24.0	24.0	24.1	24.1	43	43	43	43	28.2	28.2	27.9	27.9
Burkina Faso	1.8	1.8	2.0	2.0	13	13	14	14	94.9	94.9	94.3	94.3
Burundi	3.3	3.3	3.3	3.3	22	22	23	23	90.5	90.5	90.5	90.5
Cameroon	5.5	5.5	5.4	5.4	29	29	29	29	83.7	83.7	84.0	84.0
Cape Verde												
Central African Republic	10.8	10.8	10.7	10.7	35	35	35	35	67.8	67.8	68.1	68.1
Chad	3.4	3.4	3.5	3.5	23	23	24	24	90.0	90.0	89.7	89.7
Comoros	0.1	0.1	0.1	0.1	1	1	1	1	100.0	100.0	100.0	100.0
Congo	5.4	5.4	5.3	5.3	28	28	28	28	84.0	84.0	84.5	84.5
Congo, Democratic Rep.	3.2	3.2	3.2	3.2	20	20	21	21	90.6	90.6	90.6	90.6
Cote d'Ivoire	7.0	7.0	7.1	7.1	33	33	33	33	79.2	79.2	79.1	79.1
Djibouti	3.1	3.1	3.1	3.1	18	18	19	19	90.9	90.9	91.0	91.0
Equatorial Guinea	3.2	3.2	3.2	3.2	21	21	20	20	90.6	90.6	90.7	90.7
Eritrea	2.4	2.4	2.4	2.4	17	17	16	16	93.1	93.1	93.2	93.2
Ethiopia	1.4	1.4	1.4	1.4	8	8	8	8	96.1	96.1	96.1	96.1
Gabon	7.7	7.7	7.9	7.9	34	34	34	34	77.1	77.1	76.6	76.6
Gambia	2.2	2.2	2.4	2.4	16	16	17	17	93.7	93.7	93.0	93.0
Ghana	2.2	2.2	2.3	2.3	15	15	15	15	93.7	93.7	93.5	93.5
Guinea	1.6	1.6	1.5	1.5	9	9	9	9	95.6	95.6	95.7	95.7
Guinea-Bissau	3.8	3.8	3.8	3.8	27	27	26	26	88.9	88.9	88.9	88.9
Kenya	6.7	6.7	6.1	6.1	31	31	30	30	80.2	80.2	82.0	82.0
Lesotho	23.7	23.7	23.2	23.2	42	42	42	42	29.2	29.2	30.5	30.5
Liberia												
Madagascar	0.5	0.5	0.5	0.5	3	3	2	2	98.9	98.9	98.8	98.8
Malawi	14.2	14.2	14.1	14.1	36	36	36	36	57.7	57.7	58.0	58.0
Mali	1.8	1.8	1.7	1.7	12	12	12	12	95.0	95.0	95.1	95.1
Mauritania	0.7	0.7	0.7	0.7	4	4	4	4	98.3	98.3	98.3	98.3
Mauritius	0.2	0.2	0.6	0.6	2	2	3	3	99.6	99.6	98.6	98.6
Mozambique	16.0	16.0	16.1	16.1	37	37	37	37	52.2	52.2	51.9	51.9
Namibia	19.5	19.5	19.6	19.6	40	40	40	40	41.8	41.8	41.5	41.5
Niger	1.1	1.1	1.1	1.1	7	7	7	7	96.9	96.9	97.0	97.0
Nigeria	3.7	3.7	3.9	3.9	25	25	27	27	89.1	89.1	88.7	88.7
Rwanda	3.8	3.8	3.0	3.0	26	26	18	18	89.0	89.0	91.3	91.3
Sao Tome and Principe												
Senegal	0.9	0.9	0.7	0.7	6	6	5	5	97.5	97.5	98.2	98.2
Seychelles												
Sierra Leone	1.6	1.6	1.6	1.6	10	10	10	10	95.6	95.6	95.6	95.6
Somalia	0.9	0.9	0.9	0.9	5	5	6	6	97.7	97.7	97.7	97.7
South Africa	18.6	18.6	18.8	18.8	39	39	39	39	44.4	44.4	43.9	43.9
Sudan	1.6	1.6	1.6	1.6	11	11	11	11	95.6	95.6	95.5	95.5
Swaziland	32.4	32.4	33.4	33.4	44	44	44	44	2.9	2.9	0.0	0.0
Tanzania	6.6	6.6	6.5	6.5	30	30	32	32	80.6	80.6	80.9	80.9
Togo	3.2	3.2	3.2	3.2	19	19	22	22	90.7	90.7	90.6	90.6
Uganda	6.8	6.8	6.4	6.4	32	32	31	31	79.9	79.9	81.1	81.1
Zambia	16.9	16.9	17.0	17.0	38	38	38	38	49.4	49.4	49.4	49.4
Zimbabwe	22.1	22.1	20.1	20.1	41	41	41	41	33.9	33.9	39.9	39.9

Category: Human Development

Sub-Category: Health and Sanitation

INDICATOR: INCIDENCE OF TUBERCULOSIS

This indicator assesses the number of new TB cases per 100,000 people, from the World Health Organization's (WHO) *Global Tuberculosis Control Report*, as reported in the World Bank's World Development Indicators (WDI) 2008. Figures represent "the estimated number of new pulmonary, smear positive, and extra-pulmonary tuberculosis cases."¹ Although real figures, rather than estimates, would be ideal for the Index, these estimates are the best data currently available.

In 2006, estimated incidence ranged from a low of 22.7 per 100,000 people (Mauritius) to a high of 1,155.3 per 100,000 people (Swaziland). Environmental factors clearly played a role in estimated TB incidence. After Swaziland, the country with the highest estimated TB incidence was South Africa (940.2). Neighboring Namibia and Lesotho also showed high incidence, along with Djibouti. In addition to Mauritius, the countries with the lowest incidence included the Seychelles, the Comoros, Benin, and Eritrea.

The Millennium Development Goals (MDGs) address tuberculosis under Target 8. MDGs Indicators provide data on tuberculosis prevalence (rate per 100,000); the tuberculosis death rate (per 100,000); the tuberculosis treatment success rate under the Directly Observed Treatment, Short Course (DOTS); and the tuberculosis detection rate under DOTS.

This indicator cannot begin to provide complete data on the new serious epidemics in Africa, especially in southern Africa, of multidrug resistant TB and extensively drug resistant TB. Both epidemics are overwhelming health providers in Africa, especially in those many countries where both new forms of TB mix with HIV and create additional challenges to the already frayed health infrastructures.

1 WDI notes, last accessed 25 July 2008.

Incidence of Tuberculosis (per 100,000 People)

WHO's Global Tuberculosis Control Report (as reported in the WDI 2008)

	SCALED DATA:											
	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	251.1	262.0	279.3	285.3	19	20	20	21	79.8	78.9	77.3	76.8
Benin	84.7	86.4	89.0	89.9	4	4	4	4	94.5	94.4	94.1	94.1
Botswana	600.3	629.8	586.9	550.5	43	42	41	41	49.0	46.4	50.2	53.4
Burkina Faso	180.9	178.8	225.8	248.5	10	9	13	15	86.0	86.2	82.1	80.1
Burundi	317.8	361.7	372.1	366.9	28	29	30	30	73.9	70.1	69.2	69.6
Cameroon	166.0	188.9	194.3	191.6	9	10	9	9	87.3	85.3	84.8	85.1
Cape Verde	165.9	166.7	168.0	168.4	8	8	7	7	87.4	87.3	87.2	87.1
Central African Republic	298.8	340.1	349.8	345.0	27	27	28	27	75.6	72.0	71.1	71.5
Chad	258.7	294.4	302.8	298.6	22	24	22	22	79.2	76.0	75.3	75.6
Comoros	56.3	51.8	45.7	43.8	3	3	3	3	97.0	97.4	98.0	98.1
Congo	349.1	397.3	408.7	403.0	34	35	36	37	71.2	66.9	65.9	66.4
Congo, Democratic Rep.	339.2	386.0	397.1	391.6	30	32	34	35	72.1	67.9	66.9	67.4
Cote d'Ivoire	364.2	414.4	426.3	420.4	35	36	38	38	69.8	65.4	64.4	64.9
Djibouti	712.0	743.0	791.9	809.0	47	45	46	46	39.1	36.4	32.1	30.6
Equatorial Guinea	221.6	252.2	259.4	255.8	16	19	18	16	82.4	79.7	79.1	79.4
Eritrea	85.0	87.8	92.3	93.8	5	5	5	5	94.5	94.2	93.9	93.7
Ethiopia	327.5	372.7	383.4	378.1	29	31	31	32	73.1	69.1	68.2	68.6
Gabon	254.4	285.3	324.8	353.6	20	22	26	28	79.5	76.8	73.3	70.8
Gambia	226.4	236.3	251.8	257.3	17	16	16	17	82.0	81.1	79.8	79.3
Ghana	210.5	207.9	204.2	202.9	13	12	10	10	83.4	83.6	84.0	84.1
Guinea	198.1	218.3	252.4	264.9	12	13	17	18	84.5	82.7	79.7	78.6
Guinea-Bissau	192.7	201.0	214.3	218.9	11	11	11	12	85.0	84.3	83.1	82.7
Kenya	420.3	434.7	421.5	384.5	39	39	37	33	64.9	63.6	64.8	68.1
Lesotho	553.1	612.7	639.0	635.1	41	41	44	44	53.2	47.9	45.6	45.9
Liberia	287.0	326.6	336.0	331.3	25	26	27	26	76.7	73.2	72.3	72.8
Madagascar	218.0	227.5	242.5	247.8	15	15	15	14	82.8	81.9	80.6	80.1
Malawi	424.8	416.0	391.0	377.1	40	38	33	31	64.5	65.3	67.5	68.7
Mali	288.0	285.1	281.0	279.6	26	21	21	20	76.6	76.8	77.2	77.3
Mauritania	278.4	290.5	309.6	316.3	24	23	23	25	77.4	76.4	74.7	74.1
Mauritius	24.0	23.5	22.9	22.7	1	1	1	1	99.9	99.9	100.0	100.0
Mozambique	383.5	436.4	448.9	442.7	38	40	39	39	68.1	63.5	62.4	62.9
Namibia	664.1	755.7	777.4	766.6	46	46	45	45	43.4	35.3	33.4	34.3
Niger	152.8	159.4	169.9	173.6	7	7	8	8	88.5	87.9	87.0	86.7
Nigeria	269.1	306.2	315.0	310.6	23	25	24	23	78.2	75.0	74.2	74.6
Rwanda	343.8	391.3	402.5	396.9	33	34	35	36	71.6	67.5	66.5	67.0
Sao Tome and Principe	114.0	110.1	104.6	102.8	6	6	6	6	91.9	92.3	92.8	92.9
Senegal	238.0	248.3	264.7	270.4	18	18	19	19	81.0	80.1	78.6	78.1
Seychelles	36.5	35.3	33.5	32.9	2	2	2	2	98.8	98.9	99.0	99.1
Sierra Leone	371.5	414.7	489.3	517.0	37	37	40	40	69.2	65.4	58.8	56.4
Somalia	255.3	242.3	224.1	218.4	21	17	12	11	79.5	80.6	82.2	82.7
South Africa	575.8	779.8	925.2	940.2	42	47	47	47	51.2	33.1	20.3	19.0
Sudan	213.2	222.4	237.1	242.2	14	14	14	13	83.2	82.4	81.1	80.6
Swaziland	801.5	993.9	1141.0	1155.3	48	48	48	48	31.2	14.2	1.3	0.0
Tanzania	339.2	351.7	324.5	312.1	31	28	25	24	72.1	71.0	73.3	74.4
Togo	364.4	372.4	384.6	388.8	36	30	32	34	69.8	69.1	68.0	67.7
Uganda	340.2	386.1	369.6	354.7	32	33	29	29	72.0	67.9	69.4	70.7
Zambia	601.9	631.7	587.6	552.6	44	43	42	42	48.9	46.2	50.1	53.2
Zimbabwe	644.1	679.8	596.6	557.3	45	44	43	43	45.1	42.0	49.3	52.8

Category: Human Development

Sub-Category: Health and Sanitation

INDICATORS: HEALTH CARE WORKFORCE

Access to trained health care practitioners is another important component of Health and Sanitation outcomes. The two indicators in this area assess the number of physicians per 100,000 people and the number of nurses and midwifery personnel per 100,000 people. Estimates of the size of the health care workforce in each country are drawn from WHO's Statistical Information System.¹ Population estimates are drawn from the World Bank's World Development Indicators (WDI) 2008.²

Estimates are only available for one year during 2000 to 2006, except for Somalia, which is for 1997. Most are for 2004. This estimate is used for all years of the Index.³

The available data suggest considerable variation in the provision of health care across the continent. On average across countries, there are just under 20 physicians and 127 nurses and midwifery personnel per 100,000 people. Malawi has the lowest recorded numbers of physicians per 100,000 people (2.1), but better numbers for nurses and midwifery personnel (56.3 per 100,000). Burundi has the lowest rates for nurses and midwifery personnel (17.8 per 100,000) and among the lowest for physicians (2.6 per 100,000). At the other end of the spectrum, the Seychelles enjoys the highest rates for both physicians and nurses and midwifery personnel (146.7 and 768.5 per 100,000, respectively).

Further information on the health care workforce can be found in WHO's *World Health Statistics 2008* and *Global Atlas of the Health Workforce*. WHO health workforce data are based on ten categories: physicians, nurses, midwives, dentists, pharmacists, laboratory workers, environment and public health workers, community health workers, other health workers, and health management and support workers. For details on these categories, see WHO, "Human Resources for Health."⁴

Technical Notes

Estimates are for 2004 and numbers per 100,000 people are calculated using 2004 population estimates from the WDI 2008, except for the following countries:

Estimates from the following countries are for 2003: Ethiopia, the Gambia, Lesotho, and Nigeria.

Estimates from the following countries are for 2002: Kenya and Tanzania.

Estimates for Djibouti for physicians are from 2005.

Estimates for the Sudan are for 2006.

Estimates for Somalia are for 1997, and are probably wild over-estimates for 2008.

1 Available at <http://www.who.int/whosis> (last accessed 9 August 2008).

2 Last accessed 24 July 2008.

3 An additional problem with these data is that registries may not be up to date. Deceased physicians may remain on the registries in some countries and death rates may be uneven across countries. This point was brought to our attention by Christopher Murray, University of Washington, Institute for Health Metrics and Evaluation (7 August 2008).

4 Available at <http://www.who.int/whosis/indicators/compendium/2008/3hwo> (last accessed 9 August 2008).

Physicians per 100,000 People

WHO's Statistical Information System (WDI 2008 for population)

	RAW DATA:								SCALED DATA:			
	Total Number				Per 100,000 People				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	1,165	1,165	1,165	1,165	7.5	7.5	7.5	7.5	3.7	3.7	3.7	3.7
Benin	311	311	311	311	3.8	3.8	3.8	3.8	1.2	1.2	1.2	1.2
Botswana	715	715	715	715	39.4	39.4	39.4	39.4	25.8	25.8	25.8	25.8
Burkina Faso	708	708	708	708	5.2	5.2	5.2	5.2	2.2	2.2	2.2	2.2
Burundi	200	200	200	200	2.6	2.6	2.6	2.6	0.4	0.4	0.4	0.4
Cameroon	3,124	3,124	3,124	3,124	17.9	17.9	17.9	17.9	11.0	11.0	11.0	11.0
Cape Verde	231	231	231	231	46.7	46.7	46.7	46.7	30.8	30.8	30.8	30.8
Central African Republic	331	331	331	331	8.0	8.0	8.0	8.0	4.1	4.1	4.1	4.1
Chad	345	345	345	345	3.5	3.5	3.5	3.5	1.0	1.0	1.0	1.0
Comoros	115	115	115	115	19.6	19.6	19.6	19.6	12.1	12.1	12.1	12.1
Congo	756	756	756	756	21.4	21.4	21.4	21.4	13.4	13.4	13.4	13.4
Congo, Democratic Rep.	5,827	5,827	5,827	5,827	10.2	10.2	10.2	10.2	5.7	5.7	5.7	5.7
Cote d'Ivoire	2,081	2,081	2,081	2,081	11.4	11.4	11.4	11.4	6.4	6.4	6.4	6.4
Djibouti	140	140	140	140	17.4	17.4	17.4	17.4	10.6	10.6	10.6	10.6
Equatorial Guinea	153	153	153	153	32.4	32.4	32.4	32.4	20.9	20.9	20.9	20.9
Eritrea	215	215	215	215	4.9	4.9	4.9	4.9	2.0	2.0	2.0	2.0
Ethiopia	1,936	1,936	1,936	1,936	2.7	2.7	2.7	2.7	0.4	0.4	0.4	0.4
Gabon	395	395	395	395	31.1	31.1	31.1	31.1	20.1	20.1	20.1	20.1
Gambia	156	156	156	156	10.2	10.2	10.2	10.2	5.7	5.7	5.7	5.7
Ghana	3,240	3,240	3,240	3,240	14.7	14.7	14.7	14.7	8.7	8.7	8.7	8.7
Guinea	987	987	987	987	11.2	11.2	11.2	11.2	6.3	6.3	6.3	6.3
Guinea-Bissau	188	188	188	188	12.1	12.1	12.1	12.1	7.0	7.0	7.0	7.0
Kenya	4,506	4,506	4,506	4,506	13.7	13.7	13.7	13.7	8.0	8.0	8.0	8.0
Lesotho	89	89	89	89	4.6	4.6	4.6	4.6	1.7	1.7	1.7	1.7
Liberia	103	103	103	103	3.1	3.1	3.1	3.1	0.7	0.7	0.7	0.7
Madagascar	5,201	5,201	5,201	5,201	28.7	28.7	28.7	28.7	18.4	18.4	18.4	18.4
Malawi	266	266	266	266	2.1	2.1	2.1	2.1	0.0	0.0	0.0	0.0
Mali	1,053	1,053	1,053	1,053	9.3	9.3	9.3	9.3	5.0	5.0	5.0	5.0
Mauritania	313	313	313	313	10.9	10.9	10.9	10.9	6.1	6.1	6.1	6.1
Mauritius	1,303	1,303	1,303	1,303	105.6	105.6	105.6	105.6	71.6	71.6	71.6	71.6
Mozambique	514	514	514	514	2.6	2.6	2.6	2.6	0.3	0.3	0.3	0.3
Namibia	598	598	598	598	30.0	30.0	30.0	30.0	19.3	19.3	19.3	19.3
Niger	296	296	296	296	2.3	2.3	2.3	2.3	0.2	0.2	0.2	0.2
Nigeria	34,923	34,923	34,923	34,923	25.9	25.9	25.9	25.9	16.5	16.5	16.5	16.5
Rwanda	432	432	432	432	4.8	4.8	4.8	4.8	1.9	1.9	1.9	1.9
Sao Tome and Principe	81	81	81	81	54.0	54.0	54.0	54.0	35.9	35.9	35.9	35.9
Senegal	594	594	594	594	5.2	5.2	5.2	5.2	2.2	2.2	2.2	2.2
Seychelles	121	121	121	121	146.7	146.7	146.7	146.7	100.0	100.0	100.0	100.0
Sierra Leone	168	168	168	168	3.1	3.1	3.1	3.1	0.7	0.7	0.7	0.7
Somalia	310	310	310	310	4.8	4.8	4.8	4.8	1.9	1.9	1.9	1.9
South Africa	34,829	34,829	34,829	34,829	75.1	75.1	75.1	75.1	50.5	50.5	50.5	50.5
Sudan	11,083	11,083	11,083	11,083	29.4	29.4	29.4	29.4	18.9	18.9	18.9	18.9
Swaziland	171	171	171	171	15.3	15.3	15.3	15.3	9.1	9.1	9.1	9.1
Tanzania	822	822	822	822	2.3	2.3	2.3	2.3	0.2	0.2	0.2	0.2
Togo	225	225	225	225	3.7	3.7	3.7	3.7	1.1	1.1	1.1	1.1
Uganda	2,209	2,209	2,209	2,209	7.9	7.9	7.9	7.9	4.0	4.0	4.0	4.0
Zambia	1,264	1,264	1,264	1,264	11.2	11.2	11.2	11.2	6.3	6.3	6.3	6.3
Zimbabwe	2,086	2,086	2,086	2,086	16.0	16.0	16.0	16.0	9.6	9.6	9.6	9.6

Nursing and Midwifery Personnel per 100,000 People

WHO's Statistical Information System (WDI 2008 for population)

	RAW DATA:								SCALED DATA:			
	Total Number				Per 100,000 People				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	18,977	18,977	18,977	18,977	121.4	121.4	121.4	121.4	13.8	13.8	13.8	13.8
Benin	5,789	5,789	5,789	5,789	70.4	70.4	70.4	70.4	7.0	7.0	7.0	7.0
Botswana	4,753	4,753	4,753	4,753	261.9	261.9	261.9	261.9	32.5	32.5	32.5	32.5
Burkina Faso	6,557	6,557	6,557	6,557	48.5	48.5	48.5	48.5	4.1	4.1	4.1	4.1
Burundi	1,348	1,348	1,348	1,348	17.8	17.8	17.8	17.8	0.0	0.0	0.0	0.0
Cameroon	26,042	26,042	26,042	26,042	149.6	149.6	149.6	149.6	17.6	17.6	17.6	17.6
Cape Verde	410	410	410	410	82.8	82.8	82.8	82.8	8.7	8.7	8.7	8.7
Central African Republic	1,613	1,613	1,613	1,613	39.1	39.1	39.1	39.1	2.8	2.8	2.8	2.8
Chad	2,499	2,499	2,499	2,499	25.5	25.5	25.5	25.5	1.0	1.0	1.0	1.0
Comoros	588	588	588	588	100.0	100.0	100.0	100.0	10.9	10.9	10.9	10.9
Congo	3,672	3,672	3,672	3,672	104.0	104.0	104.0	104.0	11.5	11.5	11.5	11.5
Congo, Democratic Rep.	28,789	28,789	28,789	28,789	50.6	50.6	50.6	50.6	4.4	4.4	4.4	4.4
Cote d'Ivoire	10,180	10,180	10,180	10,180	55.7	55.7	55.7	55.7	5.1	5.1	5.1	5.1
Djibouti	296	296	296	296	37.5	37.5	37.5	37.5	2.6	2.6	2.6	2.6
Equatorial Guinea	271	271	271	271	57.3	57.3	57.3	57.3	5.3	5.3	5.3	5.3
Eritrea	2,505	2,505	2,505	2,505	57.5	57.5	57.5	57.5	5.3	5.3	5.3	5.3
Ethiopia	15,544	15,544	15,544	15,544	21.8	21.8	21.8	21.8	0.5	0.5	0.5	0.5
Gabon	6,778	6,778	6,778	6,778	533.6	533.6	533.6	533.6	68.7	68.7	68.7	68.7
Gambia	1,881	1,881	1,881	1,881	123.4	123.4	123.4	123.4	14.1	14.1	14.1	14.1
Ghana	19,707	19,707	19,707	19,707	89.3	89.3	89.3	89.3	9.5	9.5	9.5	9.5
Guinea	4,408	4,408	4,408	4,408	49.9	49.9	49.9	49.9	4.3	4.3	4.3	4.3
Guinea-Bissau	1,072	1,072	1,072	1,072	69.2	69.2	69.2	69.2	6.8	6.8	6.8	6.8
Kenya	37,113	37,113	37,113	37,113	112.8	112.8	112.8	112.8	12.6	12.6	12.6	12.6
Lesotho	1,123	1,123	1,123	1,123	57.6	57.6	57.6	57.6	5.3	5.3	5.3	5.3
Liberia	1,035	1,035	1,035	1,035	30.9	30.9	30.9	30.9	1.7	1.7	1.7	1.7
Madagascar	5,661	5,661	5,661	5,661	31.2	31.2	31.2	31.2	1.8	1.8	1.8	1.8
Malawi	7,264	7,264	7,264	7,264	56.3	56.3	56.3	56.3	5.1	5.1	5.1	5.1
Mali	8,338	8,338	8,338	8,338	74.0	74.0	74.0	74.0	7.5	7.5	7.5	7.5
Mauritania	1,893	1,893	1,893	1,893	65.7	65.7	65.7	65.7	6.4	6.4	6.4	6.4
Mauritius	4,604	4,604	4,604	4,604	373.3	373.3	373.3	373.3	47.4	47.4	47.4	47.4
Mozambique	6,183	6,183	6,183	6,183	30.8	30.8	30.8	30.8	1.7	1.7	1.7	1.7
Namibia	6,145	6,145	6,145	6,145	308.2	308.2	308.2	308.2	38.7	38.7	38.7	38.7
Niger	2,818	2,818	2,818	2,818	22.0	22.0	22.0	22.0	0.6	0.6	0.6	0.6
Nigeria	210,306	210,306	210,306	210,306	156.2	156.2	156.2	156.2	18.4	18.4	18.4	18.4
Rwanda	3,647	3,647	3,647	3,647	40.3	40.3	40.3	40.3	3.0	3.0	3.0	3.0
Sao Tome and Principe	308	308	308	308	205.2	205.2	205.2	205.2	25.0	25.0	25.0	25.0
Senegal	3,287	3,287	3,287	3,287	28.7	28.7	28.7	28.7	1.4	1.4	1.4	1.4
Seychelles	634	634	634	634	768.5	768.5	768.5	768.5	100.0	100.0	100.0	100.0
Sierra Leone	2,510	2,510	2,510	2,510	46.6	46.6	46.6	46.6	3.8	3.8	3.8	3.8
Somalia	1,486	1,486	1,486	1,486	23.1	23.1	23.1	23.1	0.7	0.7	0.7	0.7
South Africa	184,459	184,459	184,459	184,459	398.0	398.0	398.0	398.0	50.6	50.6	50.6	50.6
Sudan	33,354	33,354	33,354	33,354	88.5	88.5	88.5	88.5	9.4	9.4	9.4	9.4
Swaziland	6,828	6,828	6,828	6,828	609.7	609.7	609.7	609.7	78.9	78.9	78.9	78.9
Tanzania	13,292	13,292	13,292	13,292	37.3	37.3	37.3	37.3	2.6	2.6	2.6	2.6
Togo	1,937	1,937	1,937	1,937	31.9	31.9	31.9	31.9	1.9	1.9	1.9	1.9
Uganda	18,969	18,969	18,969	18,969	67.7	67.7	67.7	67.7	6.6	6.6	6.6	6.6
Zambia	22,010	22,010	22,010	22,010	195.3	195.3	195.3	195.3	23.6	23.6	23.6	23.6
Zimbabwe	9,357	9,357	9,357	9,357	71.8	71.8	71.8	71.8	7.2	7.2	7.2	7.2

Category: Human Development

Sub-Category: Health and Sanitation

INDICATOR: ACCESS TO DRINKING WATER

Access to potable water is a key, final component of Health and Sanitation. Our indicator measures the percent of the population with access to drinking water, from the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation, “Water for Life: Making it Happen” (<http://www.wssinfo.org>).¹ Estimates are available for 1990, 1995, 2000, and 2004.

There is sharp variation in access to potable water across sub-Saharan African countries. In Mauritius, 100 percent of the population is estimated to have access to potable water, while in Ethiopia estimates indicate that less than a quarter of the population has such access.

The JMP also includes useful information on drinking water for urban and rural populations and for sanitation overall and for urban and rural areas. Although we do not use these additional indicators directly in the Index of African Governance, they provide a useful resource for further comparative analysis of water and sanitation. Other key sources include the UNDP’s 2006 *Human Development Report*, subtitled “Beyond Scarcity: Power, Poverty and the Global Water Crisis,” which focused on the topic of water. Goal 7 of the Millennium Development Goals (MDG) also deals with drinking water and sanitation under Target 10.

Technical Notes

Figures for 2005 and 2006 are unavailable; 2004 estimates are used and reported in italics. Estimates for 2000 are used for 2002 and reported in italics.

1 Last accessed 30 July 2008.

Access to Drinking Water (% of Overall Population)

WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation

	SCALED DATA:											
	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	46	46	53	53	39	39	35	35	30.8	30.8	39.7	39.7
Benin	65	65	67	67	21	21	22	22	55.1	55.1	57.7	57.7
Botswana	95	95	95	95	2	2	2	2	93.6	93.6	93.6	93.6
Burkina Faso	54	54	61	61	33	33	26	26	41.0	41.0	50.0	50.0
Burundi	77	77	79	79	14	14	12	12	70.5	70.5	73.1	73.1
Cameroon	61	61	66	66	24	24	23	23	50.0	50.0	56.4	56.4
Cape Verde	80	80	80	80	9	9	11	11	74.4	74.4	74.4	74.4
Central African Republic	70	70	75	75	17	17	16	16	61.5	61.5	67.9	67.9
Chad	35	35	42	42	46	46	46	46	16.7	16.7	25.6	25.6
Comoros	88	88	86	86	3	3	7	7	84.6	84.6	82.1	82.1
Congo	57	57	58	58	28	28	32	32	44.9	44.9	46.2	46.2
Congo, Democratic Rep.	45	45	46	46	40	40	41	41	29.5	29.5	30.8	30.8
Cote d'Ivoire	83	83	84	84	7	7	8	8	78.2	78.2	79.5	79.5
Djibouti	73	73	73	73	15	15	19	19	65.4	65.4	65.4	65.4
Equatorial Guinea	43	43	43	43	44	44	44	44	26.9	26.9	26.9	26.9
Eritrea	54	54	60	60	33	33	29	29	41.0	41.0	48.7	48.7
Ethiopia	22	22	22	22	48	48	48	48	0.0	0.0	0.0	0.0
Gabon	86	86	88	88	6	6	3	3	82.1	82.1	84.6	84.6
Gambia	82	82	82	82	8	8	9	9	76.9	76.9	76.9	76.9
Ghana	70	70	75	75	17	17	16	16	61.5	61.5	67.9	67.9
Guinea	49	49	50	50	36	36	38	38	34.6	34.6	35.9	35.9
Guinea-Bissau	58	58	59	59	26	26	31	31	46.2	46.2	47.4	47.4
Kenya	57	57	61	61	28	28	26	26	44.9	44.9	50.0	50.0
Lesotho	79	79	79	79	12	12	12	12	73.1	73.1	73.1	73.1
Liberia	61	61	61	61	24	24	26	26	50.0	50.0	50.0	50.0
Madagascar	45	45	46	46	40	40	41	41	29.5	29.5	30.8	30.8
Malawi	64	64	73	73	22	22	19	19	53.8	53.8	65.4	65.4
Mali	45	45	50	50	40	40	38	38	29.5	29.5	35.9	35.9
Mauritania	47	47	53	53	38	38	35	35	32.1	32.1	39.7	39.7
Mauritius	100	100	100	100	1	1	1	1	100.0	100.0	100.0	100.0
Mozambique	42	42	43	43	45	45	44	44	25.6	25.6	26.9	26.9
Namibia	80	80	87	87	9	9	6	6	74.4	74.4	83.3	83.3
Niger	44	44	46	46	43	43	41	41	28.2	28.2	30.8	30.8
Nigeria	49	49	48	48	36	36	40	40	34.6	34.6	33.3	33.3
Rwanda	70	70	74	74	17	17	18	18	61.5	61.5	66.7	66.7
Sao Tome and Principe	79	79	79	79	12	12	12	12	73.1	73.1	73.1	73.1
Senegal	73	73	76	76	15	15	15	15	65.4	65.4	69.2	69.2
Seychelles	87	87	88	88	4	4	3	3	83.3	83.3	84.6	84.6
Sierra Leone	57	57	57	57	28	28	34	34	44.9	44.9	44.9	44.9
Somalia	29	29	29	29	47	47	47	47	9.0	9.0	9.0	9.0
South Africa	87	87	88	88	4	4	3	3	83.3	83.3	84.6	84.6
Sudan	69	69	70	70	20	20	21	21	60.3	60.3	61.5	61.5
Swaziland	62	62	62	62	23	23	24	24	51.3	51.3	51.3	51.3
Tanzania	58	58	62	62	26	26	24	24	46.2	46.2	51.3	51.3
Togo	51	51	52	52	35	35	37	37	37.2	37.2	38.5	38.5
Uganda	55	55	60	60	31	31	29	29	42.3	42.3	48.7	48.7
Zambia	55	55	58	58	31	31	32	32	42.3	42.3	46.2	46.2
Zimbabwe	80	80	81	81	9	9	10	10	74.4	74.4	75.6	75.6

Category: Human Development

Sub-Category: Education

INDICATORS: ADULT LITERACY RATES

UNESCO defines literacy as “the ability to identify, understand, interpret, create, communicate and compute, using printed and written materials associated with varying contexts.”¹ The adult literacy rate is a key indicator of educational outcomes—a measure of the accumulated impact of primary education and literacy programs. Basic literacy is necessary for full and effective participation in many aspects of the economy, politics, and culture.

The Index of African Governance includes two indicators of adult literacy, one for literacy overall and one for literacy among women. Estimates describe the percentage of the population over 15 years of age that can both read and write, with understanding, a short simple statement on his/her everyday life. Our figures are primarily from the UNESCO Institute of Statistics (UIS), “National Literacy Rates for Youths (15–24) and Adults (15+),” April 2008 release.² Estimates are from UNESCO, based on censuses and surveys, which are generally undertaken at 5–10 year intervals assuming that literacy rates generally do not change rapidly over time. The source and exact year of each estimate are given in the table below.

High literacy rates suggest that citizens in a particular country have benefited from strong educational programs over time. However, given the strong influence of past educational programs on current adult literacy rates, users of the Index should note that this indicator is a particularly “noisy” measure of the efforts of current governments. The legacies of previous administrations also mean that the deleterious effects of current policies will not show up immediately in this indicator. And, some governments may face sharp challenges in remedying the poor policies of previous administrations. Like other Human Development indicators, they are also closely correlated with income levels.

The Index’s estimates for adult literacy suggest some of the difficulties in interpretation posed by these lagged effects. The most recent overall literacy rates in the region range from an estimated 17.1 percent (Somalia) to 91.8 percent (the Seychelles), with an estimated average for 2006 of 62.2 percent. Given its recent instability, it is notable that Zimbabwe follows the Seychelles in terms of adult literacy (an estimated 90.7 percent in 2006). This figure might be explained in part by the lagged effects of current instability, estimation techniques used by UNESCO, and the possibility of flawed reporting.³ Other countries with high literacy rates include Namibia, South Africa, São Tomé and Príncipe, Equatorial Guinea, and Mauritius. All have reported adult literacy rates of at least 87 percent. In addition to Somalia, the reported lowest literacy rates are in Mali (22.9 percent), Chad (25.7 percent), and Burkina Faso (26 percent).

Adult literacy rates among women are even lower—the latest estimates average about 56 percent across countries, ranging from a low of 12.8 percent in Chad to a high of 92.3 percent in the Seychelles. In addition to Chad, countries with the lowest female literacy rates include Mali (15.6 percent), Niger (15.8 percent), Burkina Faso (17.9 percent), and Guinea (18.1 percent).

A final point to highlight about literacy rates is the problem of comparability and measurement. The information reported by countries in UNESCO’s Literacy Statistics Survey, for instance, is drawn from different national sources, including national population censuses, household surveys, and national sample surveys. One key effort to improve literacy statistics is the Literacy Assessment Practices (LAP) Project, undertaken jointly by the International Literacy Institute and UNESCO.⁴

Although UNESCO data are used in the 2008 Index as the authoritative source, estimates were also obtained from several other sources, including the U.S. Central Intelligence Agency’s (CIA) *The World Factbook*; Millennium Development Goals (MDG) Indicators; and the UNDP Human Development Reports. Literacy is highlighted under Goal 4 of the MDGs and is one of the four indicators used to calculate the UNDP’s Human Development Index (HDI).

1 UNESCO, *Literacy, A UNESCO Perspective* (Paris, 2003), 10.

2 Available at <http://stats.uis.unesco.org> (last accessed 1 August 2008).

3 It should be noted, however, that the CIA World Factbook also quotes a literacy rate of 90.7 percent in its 15 May 2008 update.

4 See International Literacy Institute, “Literacy Assessment Practices (LAP) in Selected Developing Countries: Analytic Review of Four LAP Country Case Studies” (Philadelphia, 2002).

Technical Notes

Estimates are not available for every year. The first table below summarizes all figures on overall literacy rates available for 1996 to 2006 from the UNESCO Institute of Statistics (UIS), “National Literacy Rates for Youths (15–24) and Adults (15+),” April 2008 release.⁵ Figures based on UIS estimation are noted. If figures are unavailable from this source, UIS estimates are taken from the *Human Development Report 2007/2008* (abbreviated in the table as “UIS est. from HDR”).

The Index of African Governance uses the closest available year’s figure or estimate for each Index year 2000, 2002, 2005, and 2006.⁶ Figures shown in italics indicate figures or estimates for a different year used as approximations.

The second table below shows literacy rates among women. The same sources and method are used. Estimates are unavailable for Djibouti, Eritrea, the Gambia, and Somalia.⁷

Adult Literacy Rates, Overall

Country	Reported Literacy Rates and Estimates, 1996–2006
Angola	67.4 (2001)
Benin	34.7 (2002), 38.9 (2005, UIS est.), 39.7 (2006, UIS est.)
Botswana	81.2 (2003), 81.4 (2005, UIS est.), 82.1 (2006, UIS est.)
Burkina Faso	12.8 (1996), 21.8 (2003), 23.6 (2005, UIS est.), 26.0 (2006, UIS est.)
Burundi	59.3 (2000)
Cameroon	67.9 (2001)
Cape Verde	81.2 (2004, UIS est.), 82.1 (2005, UIS est.), 83.0 (2006, UIS est.)
Central African Republic	48.6 (2000)
Chad	25.7 (2000)
Comoros	72.4 (2004, UIS est.), 73.3 (2005, UIS est.), 74.2 (2006, UIS est.)
Congo	84.4 (2004, UIS est.), 85.2 (2005, UIS est.), 86.0 (2006, UIS est.)
Congo, Democratic Rep.	67.2 (2001)
Côte d’Ivoire	48.7 (2000)
Djibouti	<i>70.3 (UIS est. from HDR)⁸</i>
Equatorial Guinea	87.0 (2000)
Eritrea	<i>60.5 (UIS est. from HDR)⁹</i>
Ethiopia	35.9 (2004)
Gabon	83.8 (2004, UIS est.), 84.6 (2005, UIS est.), 85.4 (2006, UIS est.)
Gambia	<i>38.0 (UIS est. from HDR)¹⁰</i>
Ghana	57.9 (2000), 63.4 (2005, UIS est.), 64.2 (2006, UIS est.)
Guinea	29.5 (2003)
Guinea-Bissau	59.2 (2004, UIS est.), 61.0 (2005, UIS est.), 62.8 (2006, UIS est.)
Kenya	73.6 (2000)
Lesotho	82.2 (2001)
Liberia	52.0 (2004, UIS est.), 53.2 (2005, UIS est.), 54.4 (2006, UIS est.)
Madagascar	70.7 (2000)
Malawi	64.1 (1998), 70.0 (2005, UIS est.), 70.9 (2006, UIS est.)
Mali	19.0 (1998), 24 (2003), 22.5 (2005, UIS est.), 22.9 (2006, UIS est.)
Mauritania	51.2 (2000), 54.6 (2005, UIS est.), 55.2 (2006, UIS est.)

⁵ Available at <http://stats.uis.unesco.org> (last accessed 1 August 2008).

⁶ If there is more than one estimate that fits this description, we use the earlier estimate.

⁷ The HDR 2007/2008 provides some estimates based on UIS sources for Djibouti (79.9), Eritrea (71.5), and the Gambia (49.9). The source cited is UIS, “Correspondence on Adult and Youth Literacy Rates,” (Montreal, 2003). HDR notes that these estimates are “based on outdated census or survey information, were used and should be interpreted with caution.” See <http://hdrstats.undp.org/indicators/272.html> (last accessed 1 August 2008). We do not use these estimates here because they appear inconsistent with other available information. For Somalia, an estimate of 25.8 percent is given in *The World Factbook*. However, this estimate is not used as *The World Factbook* estimate for overall literacy in Somalia (37.8 percent) differs significantly from our best estimate from the UNDP (17.1 percent), which is used for adult literacy overall.

Mauritius	84.3 (2000), 86.6 (2005, UIS est.), 87.0 (2006, UIS est.)
Mozambique	38.7 (1997), 43.2 (2005, UIS est.), 43.8 (2006, UIS est.)
Namibia	85.0 (2001), 87.2 (2005, UIS est.), 87.6 (2006, UIS est.)
Niger ¹¹	28.7 (2005), 29.8 (2006, UIS est.)
Nigeria	69.0 (2004, UIS est.), 70.0 (2005, UIS est.), 71.0 (2006, UIS est.)
Rwanda	64.9 (2000)
São Tomé and Príncipe	84.9 (2001), 87.0 (2005, UIS est.), 87.5 (2006, UIS est.)
Senegal	39.3 (2002), 41.4 (2005, UIS est.), 42.0 (2006, UIS est.)
Seychelles	91.8 (2002)
Sierra Leone	34.8 (2004), 36.0 (2005, UIS est.), 37.1 (2006, UIS est.)
Somalia	17.1 (UNDP Somalia 2001)
South Africa	82.4 (1996), 87.1 (2005, UIS est.), 87.6 (2006, UIS est.)
Sudan	60.9 (2000—data are for the North only)
Swaziland	79.6 (2000)
Tanzania	69.4 (2002), 71.6 (2005, UIS est.), 72.0 (2006, UIS est.)
Togo	53.2 (2000)
Uganda	68.1 (2002), 71.6 (2005, UIS est.), 72.6 (2006, UIS est.)
Zambia	68.0 (1999)
Zimbabwe	89.5 (2004, UIS est.), 90.1 (2005, UIS est.), 90.7 (2006, UIS est.)

Adult Literacy Rates, Female

Country	Reported Literacy Rates and Estimates, 1996–2006
Angola	54.2 (2001)
Benin	23.3 (2002), 26.2 (2005, UIS est.), 27.1 (2006, UIS est.)
Botswana	81.8 (2003), 81.4 (2005, UIS est.), 82.2 (2006, UIS est.)
Burkina Faso	8.1 (1996), 15.2 (2003), 16.6 (2005, UIS est.), 17.9 (2006, UIS est.)
Burundi	52.2 (2000)
Cameroon	59.8 (2001)
Cape Verde	75.5 (2004, UIS est.), 76.7 (2005, UIS est.), 77.8 (2006, UIS est.)
Central African Republic	33.5 (2000)
Chad	12.8 (2000)
Comoros	66.8 (2004, UIS est.), 67.8 (2005, UIS est.), 68.8 (2006, UIS est.)
Congo	78.5 (2004, UIS est.), 79.6 (2005, UIS est.), 80.7 (2006, UIS est.)
Congo, Democratic Rep.	54.1 (2001)
Côte d'Ivoire	38.6 (2000)
Djibouti	Unavailable
Equatorial Guinea	80.5 (2000)
Eritrea	Unavailable
Ethiopia	22.8 (2004)
Gabon	79.3 (2004, UIS est.), 80.3 (2005, UIS est.), 81.3 (2006, UIS est.)
Gambia	Unavailable
Ghana	49.8 (2000), 56.2 (2005, UIS est.), 57.2 (2006, UIS est.)
Guinea	18.1 (2003)
Guinea-Bissau	48.1 (2004, UIS est.), 50.2 (2005, UIS est.), 52.4 (2006, UIS est.)
Kenya	70.2 (2000)
Lesotho	90.3 (2001)
Liberia	45.7 (2004, UIS est.), 47.5 (2005, UIS est.), 49.2 (2006, UIS est.)
Madagascar	65.3 (2000)
Malawi	54.0 (1998), 62.0 (2005, UIS est.), 63.3 (2006, UIS est.)

Mali	11.9 (1998), 15.9 (2003), 15.2 (2005, UIS est.), 15.6 (2006, UIS est.)
Mauritania	43.4 (2000), 46.7 (2005, UIS est.), 47.5 (2006, UIS est.)
Mauritius	80.5 (2000), 83.6 (2005, UIS est.), 84.1 (2006, UIS est.)
Mozambique	25.0 (1997), 31.1 (2005, UIS est.), 32.0 (2006, UIS est.)
Namibia	83.5 (2001), 86.4 (2005, UIS est.), 86.9 (2006, UIS est.)
Niger	9.4 (2001), 15.1 (2005), 15.8 (2006, UIS est.)
Nigeria	60.0 (2004, UIS est.), 61.4 (2005, UIS est.), 62.8 (2006, UIS est.)
Rwanda	59.8 (2000)
São Tomé and Príncipe	77.9 (2001), 81.1 (2005, UIS est.), 81.9 (2006, UIS est.)
Senegal	29.2 (2002), 30.8 (2005, UIS est.), 31.5 (2006, UIS est.)
Seychelles	92.3 (2002)
Sierra Leone	24.2 (2004), 24.6 (2005, UIS est.), 25.7 (2006, UIS est.)
Somalia	Unavailable
South Africa	80.9 (1996), 86.2 (2005, UIS est.), 86.7 (2006, UIS est.)
Sudan	51.8 (2000—data are for the North only)
Swaziland	78.3 (2000)
Tanzania	62.2 (2002), 64.5 (2005, UIS est.), 65.2 (2006, UIS est.)
Togo	38.5 (2000)
Uganda	58.9 (2002), 62.7 (2005, UIS est.), 64.1 (2006, UIS est.)
Zambia	59.8 (1999)
Zimbabwe	86.2 (2004, UIS est.), 86.9 (2005, UIS est.), 87.6 (2006, UIS est.)

Further Discussion

Some resources for further reading include:

Sabo Indabawa, Akpovire Oduaran, Tai Afrik, and Shirley Walters, *The State of Adult and Continuing Education in Africa* (Windhoek, 2000).

International Literacy Institute, “Towards Guidelines for the Improvement of Literacy Assessment in Developing Countries: Conceptual Dimensions Based on the LAP Project” (Philadelphia, 2002).

Magda Becker Soares, “Literacy Assessment and Its Implications for Statistical Measurement. Current Surveys and Research in Statistics,” UNESCO (Paris, 1992).

UNESCO Institute of Statistics, *Guidelines and Methodology for the Collection, Processing and Dissemination of International Literacy Data* (Montreal, 2007).

8 The source for this estimate is given as UIS, “Correspondence on Adult and Youth Literacy Rates,” (Montreal, 2003). HDR notes that the estimate is “based on outdated census or survey information, were used and should be interpreted with caution.” See <http://hdrstats.undp.org/indicators/3.html> (last accessed 1 August 2008). The CIA *World Factbook 2007* estimate is 67.9 (2003).

9 See note for Djibouti. The CIA *World Factbook 2007* estimate is 58.6 (2003).

10 See note for Djibouti. The CIA *World Factbook 2007* estimate is 40.1 (2003).

11 UIS also reports 9.4 percent for 2001. We do not use this figure here because it appears inconsistent with dramatically higher figures in 2005 and with other estimates, suggesting possible errors or changes in measurement techniques.

Adult Literacy Rate

UNESCO Institute of Statistics

SCALED DATA:

	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	67.4	67.4	67.4	67.4	23	24	24	24	67.3	67.3	67.3	67.3
Benin	34.7	34.7	38.9	39.7	42	42	39	39	23.6	23.6	29.2	30.3
Botswana	81.2	81.2	81.4	82.1	11	11	12	12	85.8	85.8	86.1	87.0
Burkina Faso	21.8	21.8	23.6	26	46	47	46	45	6.3	6.3	8.7	11.9
Burundi	59.3	59.3	59.3	59.3	29	29	31	31	56.5	56.5	56.5	56.5
Cameroon	67.9	67.9	67.9	67.9	22	23	23	23	68.0	68.0	68.0	68.0
Cape Verde	81.2	81.2	82.1	83	11	11	11	10	85.8	85.8	87.0	88.2
Central African Republic	48.6	48.6	48.6	48.6	36	36	36	36	42.2	42.2	42.2	42.2
Chad	25.7	25.7	25.7	25.7	45	45	45	46	11.5	11.5	11.5	11.5
Comoros	72.4	72.4	73.3	74.2	15	15	15	14	74.0	74.0	75.2	76.4
Congo	84.4	84.4	85.2	86	6	7	8	8	90.1	90.1	91.2	92.2
Congo, Democratic Rep.	67.2	67.2	67.2	67.2	24	25	25	25	67.1	67.1	67.1	67.1
Cote d'Ivoire	48.7	48.7	48.7	48.7	35	35	35	35	42.3	42.3	42.3	42.3
Djibouti	70.3	70.3	70.3	70.3	17	17	19	21	71.2	71.2	71.2	71.2
Equatorial Guinea	87	87	87	87	3	4	5	6	93.6	93.6	93.6	93.6
Eritrea	60.5	60.5	60.5	60.5	28	28	30	30	58.1	58.1	58.1	58.1
Ethiopia	35.9	35.9	35.9	35.9	40	40	42	42	25.2	25.2	25.2	25.2
Gabon	83.8	83.8	84.6	85.4	8	9	9	9	89.3	89.3	90.4	91.4
Gambia	38	38	38	38	39	39	40	40	28.0	28.0	28.0	28.0
Ghana	57.9	57.9	63.4	64.2	31	31	27	27	54.6	54.6	62.0	63.1
Guinea	29.5	29.5	29.5	29.5	43	43	43	44	16.6	16.6	16.6	16.6
Guinea-Bissau	59.2	59.2	61	62.8	30	30	28	28	56.4	56.4	58.8	61.2
Kenya	73.6	73.6	73.6	73.6	14	14	14	15	75.6	75.6	75.6	75.6
Lesotho	82.2	82.2	82.2	82.2	10	10	10	11	87.1	87.1	87.1	87.1
Liberia	52	52	53.2	54.4	33	33	33	33	46.7	46.7	48.3	49.9
Madagascar	70.7	70.7	70.7	70.7	16	16	18	20	71.8	71.8	71.8	71.8
Malawi	64.1	70	70	70.9	26	18	20	19	62.9	70.8	70.8	72.0
Mali	19	24	22.5	22.9	47	46	47	47	2.5	9.2	7.2	7.8
Mauritania	51.2	51.2	54.6	55.2	34	34	32	32	45.6	45.6	50.2	51.0
Mauritius	84.3	84.3	86.6	87	7	8	7	6	90.0	90.0	93.0	93.6
Mozambique	38.7	43.2	43.2	43.8	38	37	37	37	28.9	34.9	34.9	35.7
Namibia	85	85	87.2	87.6	4	5	3	3	90.9	90.9	93.8	94.4
Niger	28.7	28.7	28.7	29.8	44	44	44	43	15.5	15.5	15.5	17.0
Nigeria	69	69	70	71	19	20	20	18	69.5	69.5	70.8	72.2
Rwanda	64.9	64.9	64.9	64.9	25	26	26	26	64.0	64.0	64.0	64.0
Sao Tome and Principe	84.9	84.9	87	87.5	5	6	5	5	90.8	90.8	93.6	94.2
Senegal	39.3	39.3	41.4	42	37	38	38	38	29.7	29.7	32.5	33.3
Seychelles	91.8	91.8	91.8	91.8	1	1	1	1	100.0	100.0	100.0	100.0
Sierra Leone	34.8	34.8	36	37.1	41	41	41	41	23.7	23.7	25.3	26.8
Somalia	17.1	17.1	17.1	17.1	48	48	48	48	0.0	0.0	0.0	0.0
South Africa	82.4	87.1	87.1	87.6	9	3	4	3	87.4	93.7	93.7	94.4
Sudan	60.9	60.9	60.9	60.9	27	27	29	29	58.6	58.6	58.6	58.6
Swaziland	79.6	79.6	79.6	79.6	13	13	13	13	83.7	83.7	83.7	83.7
Tanzania	69.4	69.4	71.6	72	18	19	16	17	70.0	70.0	73.0	73.5
Togo	53.2	53.2	53.2	53.2	32	32	33	34	48.3	48.3	48.3	48.3
Uganda	68.1	68.1	71.6	72.6	20	21	16	16	68.3	68.3	73.0	74.3
Zambia	68	68	68	68	21	22	22	22	68.1	68.1	68.1	68.1
Zimbabwe	89.5	89.5	90.1	90.7	2	2	2	2	96.9	96.9	97.7	98.5

Adult Literacy Rate, Female

UNESCO Institute of Statistics

SCALED DATA:

	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	54.2	54.2	54.2	54.2	23	24	25	25	54.0	54.0	54.0	54.0
Benin	23.3	23.3	26.2	27.1	38	38	37	37	16.8	16.8	20.3	21.4
Botswana	81.8	81.8	81.4	82.2	5	6	7	7	87.3	87.3	86.9	87.8
Burkina Faso	15.2	15.2	16.6	17.9	41	42	41	41	7.0	7.0	8.7	10.3
Burundi	52.2	52.2	52.2	52.2	26	26	27	28	51.6	51.6	51.6	51.6
Cameroon	59.8	59.8	59.8	59.8	19	20	21	21	60.8	60.8	60.8	60.8
Cape Verde	75.5	75.5	76.7	77.8	13	13	13	13	79.7	79.7	81.2	82.5
Central African Republic	33.5	33.5	33.5	33.5	34	34	34	34	29.1	29.1	29.1	29.1
Chad	12.8	12.8	12.8	12.8	42	43	44	44	4.1	4.1	4.1	4.1
Comoros	66.8	66.8	67.8	68.8	15	15	15	15	69.2	69.2	70.4	71.7
Congo	78.5	78.5	79.6	80.7	10	10	11	10	83.4	83.4	84.7	86.0
Congo, Democratic Rep.	54.1	54.1	54.1	54.1	24	25	26	26	53.9	53.9	53.9	53.9
Cote d'Ivoire	38.6	38.6	38.6	38.6	32	32	32	32	35.2	35.2	35.2	35.2
Djibouti												
Equatorial Guinea	80.5	80.5	80.5	80.5	7	7	9	11	85.8	85.8	85.8	85.8
Eritrea												
Ethiopia	22.8	22.8	22.8	22.8	39	39	39	39	16.2	16.2	16.2	16.2
Gabon	79.3	79.3	80.3	81.3	9	9	10	9	84.3	84.3	85.5	86.7
Gambia												
Ghana	49.8	49.8	56.2	57.2	28	28	24	24	48.7	48.7	56.5	57.7
Guinea	18.1	18.1	18.1	18.1	40	40	40	40	10.5	10.5	10.5	10.5
Guinea-Bissau	48.1	48.1	50.2	52.4	29	29	29	27	46.7	46.7	49.2	51.9
Kenya	70.2	70.2	70.2	70.2	14	14	14	14	73.3	73.3	73.3	73.3
Lesotho	90.3	90.3	90.3	90.3	2	2	2	2	97.6	97.6	97.6	97.6
Liberia	45.7	45.7	47.5	49.2	30	30	30	30	43.8	43.8	46.0	48.0
Madagascar	65.3	65.3	65.3	65.3	16	16	16	16	67.4	67.4	67.4	67.4
Malawi	54	62	62	63.3	25	18	19	19	53.8	63.4	63.4	65.0
Mali	11.9	15.9	15.2	15.6	43	41	42	43	3.0	7.8	7.0	7.5
Mauritania	43.4	43.4	46.7	47.5	31	31	31	31	41.0	41.0	45.0	46.0
Mauritius	80.5	80.5	83.6	84.1	7	7	6	6	85.8	85.8	89.5	90.1
Mozambique	25	31.1	31.1	32	36	35	35	35	18.8	26.2	26.2	27.3
Namibia	83.5	83.5	86.4	86.9	4	5	4	4	89.4	89.4	92.9	93.5
Niger	9.4	9.4	15.1	15.8	44	44	43	42	0.0	0.0	6.9	7.7
Nigeria	60	60	61.4	62.8	18	19	20	20	61.0	61.0	62.7	64.4
Rwanda	59.8	59.8	59.8	59.8	19	20	21	21	60.8	60.8	60.8	60.8
Sao Tome and Principe	77.9	77.9	81.1	81.9	12	12	8	8	82.6	82.6	86.5	87.5
Senegal	29.2	29.2	30.8	31.5	35	36	36	36	23.9	23.9	25.8	26.7
Seychelles	92.3	92.3	92.3	92.3	1	1	1	1	100.0	100.0	100.0	100.0
Sierra Leone	24.2	24.2	24.6	25.7	37	37	38	38	17.9	17.9	18.3	19.7
Somalia												
South Africa	80.9	86.2	86.2	86.7	6	3	5	5	86.2	92.6	92.6	93.2
Sudan	51.8	51.8	51.8	51.8	27	27	28	29	51.1	51.1	51.1	51.1
Swaziland	78.3	78.3	78.3	78.3	11	11	12	12	83.1	83.1	83.1	83.1
Tanzania	62.2	62.2	64.5	65.2	17	17	17	17	63.7	63.7	66.5	67.3
Togo	38.5	38.5	38.5	38.5	33	33	33	33	35.1	35.1	35.1	35.1
Uganda	58.9	58.9	62.7	64.1	22	23	18	18	59.7	59.7	64.3	66.0
Zambia	59.8	59.8	59.8	59.8	19	20	21	21	60.8	60.8	60.8	60.8
Zimbabwe	86.2	86.2	86.9	87.6	3	3	3	3	92.6	92.6	93.5	94.3

Category: Human Development

Sub-Category: Education

INDICATORS: PRIMARY EDUCATION COMPLETION

These two indicators assess the primary school completion rate as a percentage of the relevant age group, first, among all students and, second, among female students. Data are from UNESCO as reported in the World Bank's World Development Indicators (WDI) 2008. According to the WDI, they are "calculated by taking the total number of students in the last grade of primary school, minus the number of repeaters in that grade, divided by the total number of children of official graduation age."¹

In the Index of African Governance, figures are adjusted slightly before scores are calculated as several countries have primary school completion rates that exceed 100 percent of the relevant age group. For any country with rates above 100 percent, we assign a value of 100 percent.

In 2006, primary school completion rates ranged from an estimated low of 24.3 percent in the Central African Republic to highs of over 100 percent in the Seychelles and South Africa.² Among girls, primary school completion rates ranged from an estimated low of 18.0 percent in the Central African Republic to highs of over 100 percent in the Seychelles, Botswana, and South Africa.

Technical Notes for Primary Education Completion Overall

Data are unavailable for Angola and Somalia.

Other estimates are for the given year or closest available, as summarized below:

Data for Sierra Leone are unavailable before 2007. The 2007 figure is given as a rough estimate for 2005 and 2006.

Data for the Gambia are unavailable for 2000 through 2005. The figure for 1999 is given as an estimate for 2000 and 2002. The figure for 2006 is given as an estimate for 2005.

Data for 2006 are unavailable for Benin, Botswana, the Central African Republic, Chad, the Comoros, Equatorial Guinea, Ghana, Kenya, Nigeria, São Tomé and Príncipe, the Seychelles, the Sudan, Swaziland, and Uganda. Figures for 2005 are used as estimates for each of these countries.

Data for 2005 and 2006 are unavailable for the Democratic Republic of the Congo, Gabon, Rwanda, South Africa, and Zimbabwe. The most recent figure before that (2003 for the DRC, Gabon, and Zimbabwe and 2004 for Rwanda and South Africa) is given as a rough estimate for both years.

Data for Guinea-Bissau are unavailable after 2001. The 2001 figure is given as an estimate for 2002, 2005, and 2006.

Data for the Central African Republic are unavailable before 2003. The 2003 figure is given as an estimate for 2000 and 2002.

Data for the Comoros, Equatorial Guinea, São Tomé and Príncipe, Tanzania, and Zimbabwe are unavailable for 2000. The 1999 figures are given as estimates.

Data for Congo and Uganda are unavailable before 2001. The 2001 figure is given as an estimate for 2000.

Data for the Democratic Republic of the Congo and Gabon are unavailable before 2002. The 2002 figure is given as an estimate for 2000.

¹ Last accessed 29 July 2008.

² The Central African Republic's estimates are based on 2005 figures and South Africa's on 2004 figures. For the primary education completion rate among girls, Botswana's rate is based on 2005 figures.

Data for Côte d'Ivoire are unavailable for 2002 and 2005. Figures for 2001 and 2006 are given as estimates for 2002 and 2005.

Data for Djibouti are unavailable for 2002. The 2001 figure is given as an estimate.

Data for 2000 and 2002 are unavailable for Ghana. 1999 and 2001 are given as estimates. 2005 is given as an estimate for 2006.

Data for Kenya are unavailable through 2004. 2004 is given as an estimate for 2000 and 2002.

Data for Liberia are unavailable before 2006. 2006 is given as an estimate for 2005, but not before.

Figures for Nigeria are unavailable before 2003. The 2003 figures are given as estimates for 2000 and 2002.

Data for Rwanda are unavailable after 2004. The 2004 figure is given as an estimate for 2005 and 2006.

Technical Notes for Primary Education, Female

No data are available for Angola and Somalia.

Other estimates are for the given year or closest available, as summarized below:

Data for Sierra Leone are unavailable before 2007. The 2007 figure is given as a rough estimate for 2005 and 2006.

Data for the Gambia are unavailable for 2000 through 2005. The figure for 1999 is given as an estimate for 2000 and 2002. The figure for 2006 is given as an estimate for 2005.

Data for 2006 are unavailable for Benin, Botswana, the Central African Republic, Chad, the Comoros, Equatorial Guinea, Ghana, Kenya, Nigeria, São Tomé and Príncipe, the Seychelles, the Sudan, Swaziland, and Uganda. Figures for 2005 are used as estimates for each of these countries.

Data for 2005 and 2006 are unavailable for the Democratic Republic of the Congo, Gabon, Rwanda, South Africa, and Zimbabwe. The most recent figure before that (2003 for the DRC, Gabon, and Zimbabwe and 2004 for Rwanda and South Africa) is given as a rough estimate for both years.

Data for Guinea-Bissau are unavailable after 2001. The 2001 figure is given as an estimate for 2002, 2005, and 2006.

Data for the Central African Republic are unavailable before 2003. The 2003 figure is given as an estimate for 2000 and 2002.

Data for the Comoros, Equatorial Guinea, São Tomé and Príncipe, Tanzania, and Zimbabwe are unavailable for 2000. Data for 1999 are given as estimates.

Data for the Congo are unavailable for 1997 to 2000. The 2001 figure is given as an estimate for 2000.

Data for Djibouti are unavailable for 2002. The 2001 figure is given as an estimate for 2002.

Data for Mauritania are unavailable for 1998 to 2000. The 2001 figure is given as an estimate for 2000.

Data for Uganda are unavailable before 2001. The 2001 figure is given as an estimate for 2000.

Data for the Democratic Republic of the Congo are unavailable for 1995 to 2001. The 2002 figure is given as an estimate for 2000.

Data for Côte d'Ivoire are unavailable for 2002 and 2005. Figures for 2001 and 2006 are given as estimates for 2002 and 2005.

Data for Gabon are unavailable for 1997 to 2001. The 2002 figure is given as an estimate for 2000.

Data for Ghana are unavailable for 2000 and 2002. Estimates are from 1999 and 2001.

Data for Kenya are unavailable through 2004. The 2004 figure is given as an estimate for 2000 and 2002.

Data for Liberia are unavailable before 2006. The 2006 figure is given as an estimate for 2005, but not before.

Figures for Nigeria are unavailable before 2003. The 2003 figure is given as an estimate for 2000 and 2002.

Primary School Completion Rate (% of Relevant Age Group)

UNESCO (as reported in the WDI 2008)

	RAW DATA:				SCALED DATA:							
	As Reported				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola												
Benin	34.9	40.9	64.7	64.7	32	29	18	20	22.4	29.6	57.9	57.9
Botswana	89.9	94.1	95.2	95.2	7	5	4	3	87.9	92.9	94.2	94.2
Burkina Faso	25.0	27.1	30.3	31.3	37	38	43	43	10.6	13.1	16.9	18.1
Burundi	24.9	25.6	34.6	36.3	38	41	40	39	10.5	11.3	22.1	24.0
Cameroon	49.9	51.3	58.2	57.6	23	23	24	25	40.3	41.9	50.2	49.4
Cape Verde	101.8	97.1	81.4	92.3	1	3	7	6	100.0	96.5	77.8	90.8
Central African Republic	24.9	24.9	24.3	24.3	39	42	46	46	10.5	10.5	9.7	9.7
Chad	22.3	27.6	31.2	31.2	40	37	42	44	7.4	13.7	18.0	18.0
Comoros	38.9	47.8	50.5	50.5	26	24	31	29	27.2	37.8	41.0	41.0
Congo	54.5	56.9	67.1	73.2	20	20	15	16	45.8	48.7	60.8	68.1
Congo, Democratic Rep.	38.5	38.5	38.5	38.5	27	31	38	38	26.7	26.7	26.6	26.6
Cote d'Ivoire	39.1	42.2	42.8	42.8	25	27	35	36	27.4	31.1	31.8	31.8
Djibouti	28.0	27.7	31.2	35.5	35	36	41	41	14.2	13.8	18.0	23.1
Equatorial Guinea	65.7	54.3	58.2	58.2	12	21	23	24	59.2	45.5	50.2	50.2
Eritrea	36.4	35.2	51.6	48.4	30	34	29	33	24.2	22.8	42.3	38.5
Ethiopia	21.6	30.0	41.3	48.6	41	35	37	32	6.5	16.5	30.1	38.7
Gabon	76.0	76.0	74.7	74.7	9	9	12	13	71.3	71.3	69.8	69.8
Gambia	52.9	52.9	63.0	63.0	21	22	20	23	43.9	43.9	55.9	55.9
Ghana	62.8	62.5	70.7	70.7	14	15	14	17	55.6	55.2	65.0	65.0
Guinea	32.8	39.5	58.3	63.7	33	30	22	21	19.9	27.9	50.3	56.8
Guinea-Bissau	26.9	26.9	26.9	26.9	36	39	45	45	12.9	12.9	12.9	12.9
Kenya	90.0	90.0	92.6	92.6	6	6	5	4	88.1	88.1	91.2	91.2
Lesotho	60.1	63.3	62.3	78.3	16	13	21	10	52.4	56.3	55.1	74.1
Liberia			63.4	63.4			19	22			56.4	56.4
Madagascar	35.5	35.3	57.6	56.9	31	33	25	26	23.1	22.9	49.5	48.6
Malawi	65.7	67.9	56.2	55.1	11	12	27	27	59.2	61.7	47.7	46.4
Mali	32.8	37.7	44.1	49.4	34	32	34	30	19.9	25.7	33.4	39.7
Mauritania	52.6	46.0	46.0	47.1	22	25	33	34	43.5	35.6	35.6	37.0
Mauritius	104.6	103.2	97.2	92.3	1	1	3	5	100.0	100.0	96.7	90.8
Mozambique	16.1	22.2	41.7	41.8	44	43	36	37	0.0	7.3	30.5	30.6
Namibia	81.6	81.9	77.9	76.4	8	8	10	11	78.1	78.5	73.6	71.9
Niger	18.4	21.1	29.6	32.8	43	44	44	42	2.7	5.9	16.1	19.8
Nigeria	72.4	72.4	75.6	75.6	10	10	11	12	67.1	67.1	70.9	70.9
Rwanda	20.7	26.7	35.5	35.5	42	40	39	40	5.4	12.6	23.1	23.1
Sao Tome and Principe	46.4	61.8	74.2	74.2	24	16	13	15	36.1	54.4	69.3	69.3
Senegal	37.7	44.3	51.5	48.7	28	26	30	31	25.8	33.6	42.2	38.8
Seychelles	112.9	118.3	114.9	114.9	1	1	1	1	100.0	100.0	100.0	100.0
Sierra Leone			80.8	80.8			9	9			77.1	77.1
Somalia												
South Africa	90.1	94.7	100.2	100.2	5	4	1	1	88.2	93.7	100.0	100.0
Sudan	37.5	41.3	46.9	46.9	29	28	32	35	25.5	30.1	36.7	36.7
Swaziland	64.3	63.2	66.7	66.7	13	14	16	19	57.5	56.1	60.3	60.3
Tanzania	56.8	59.3	56.5	74.3	19	18	26	14	48.4	51.4	48.1	69.4
Togo	61.0	69.5	65.0	67.2	15	11	17	18	53.5	63.6	58.3	60.9
Uganda	57.2	59.2	54.4	54.4	18	19	28	28	49.0	51.4	45.7	45.7
Zambia	60.1	59.7	82.7	84.0	17	17	6	7	52.4	52.0	79.4	81.0
Zimbabwe	90.4	82.9	81.0	81.0	4	7	8	8	88.6	79.6	77.4	77.4

Primary School Completion Rate, Female (% of Relevant Age Group)

UNESCO (as reported in the WDI 2008)

	RAW DATA:				SCALED DATA:							
	As Reported				As Adjusted for the Index				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola												
Benin	24.2	28.9	51.3	51.3	33	33	27	27	13.4	18.7	44.3	44.3
Botswana	92.3	96.3	115.4	115.4	4	5	1	1	91.2	95.8	100.0	100.0
Burkina Faso	20.5	22.6	26.2	27.5	36	38	42	42	9.2	11.5	15.6	17.2
Burundi	22.7	22.7	30.2	32.4	35	37	40	39	11.7	11.6	20.3	22.8
Cameroon	46.5	50.0	52.9	50.5	21	22	25	28	38.8	42.9	46.2	43.5
Cape Verde	103.5	97.1	83.3	95.0	1	3	6	4	100.0	96.7	81.0	94.3
Central African Republic	18.1	18.1	18.0	18.0	40	41	46	46	6.4	6.4	6.3	6.3
Chad	12.7	16.7	21.1	21.1	43	44	44	44	0.2	4.8	9.7	9.7
Comoros	36.6	44.7	49.1	49.1	25	24	28	29	27.5	36.8	41.8	41.8
Congo	54.3	56.1	64.5	69.4	17	17	17	15	47.7	49.8	59.4	65.0
Congo, Democratic Rep.	30.8	30.8	30.8	30.8	30	30	39	41	20.9	20.9	20.9	20.9
Cote d'Ivoire	30.2	33.1	32.5	32.5	31	29	38	38	20.2	23.6	22.9	22.9
Djibouti	22.8	22.9	26.9	31.6	34	36	41	40	11.7	11.9	16.4	21.8
Equatorial Guinea	53.4	50.7	56.6	56.6	18	21	21	22	46.7	43.6	50.4	50.4
Eritrea	32.6	30.2	44.3	41.2	28	31	32	34	23.0	20.2	36.4	32.8
Ethiopia	15.2	21.2	34.2	42.4	41	39	37	33	3.1	9.9	24.7	34.1
Gabon	77.5	77.5	76.2	76.2	9	9	10	12	74.3	74.3	72.8	72.8
Gambia	45.5	45.5	63.6	63.6	23	23	18	19	37.7	37.7	58.4	58.4
Ghana	58.5	59.0	67.8	67.8	14	16	15	17	52.6	53.1	63.2	63.2
Guinea	20.5	27.6	47.1	53.4	37	34	30	25	9.2	17.2	39.6	46.8
Guinea-Bissau	19.3	19.3	19.3	19.3	38	40	45	45	7.8	7.8	7.8	7.8
Kenya	88.6	88.6	91.6	91.6	6	6	5	7	86.9	86.9	90.4	90.4
Lesotho	69.7	73.2	73.3	92.1	10	10	11	6	65.4	69.3	69.5	91.0
Liberia			57.5	57.5			20	20			51.4	51.4
Madagascar	35.7	35.7	57.5	56.7	26	28	19	21	26.5	26.5	51.5	50.5
Malawi	62.0	65.0	55.5	55.1	13	13	22	24	56.6	60.0	49.1	48.7
Mali	24.9	29.1	35.0	39.8	32	32	34	35	14.2	19.0	25.7	31.1
Mauritania	46.1	44.6	45.8	47.1	22	25	31	30	38.4	36.6	38.1	39.5
Mauritius	103.8	103.4	98.1	94.1	1	1	4	5	100.0	100.0	97.8	93.2
Mozambique	12.5	17.2	34.3	34.6	44	42	36	37	0.0	5.4	24.9	25.2
Namibia	86.8	86.9	81.4	80.3	8	7	7	8	84.9	85.0	78.7	77.5
Niger	14.8	16.9	23.5	26.1	42	43	43	43	2.6	5.0	12.5	15.6
Nigeria	64.1	64.1	67.8	67.8	12	14	16	18	59.0	59.0	63.2	63.2
Rwanda	19.0	25.6	34.9	34.9	39	35	35	36	7.4	15.0	25.6	25.6
Sao Tome and Principe	49.6	66.8	76.3	76.3	20	11	9	11	42.3	62.0	72.9	72.9
Senegal	31.8	39.2	47.6	46.6	29	26	29	31	22.0	30.5	40.1	38.9
Seychelles	111.9	116.4	117.5	117.5	1	1	1	1	100.0	100.0	100.0	100.0
Sierra Leone			69.8	69.8			13	14			65.5	65.5
Somalia												
South Africa	91.2	97.0	100.0	100.0	5	4	1	1	89.9	96.5	100.0	100.0
Sudan	35.5	38.5	43.4	43.4	27	27	33	32	26.3	29.7	35.3	35.3
Swaziland	65.9	65.2	69.1	69.1	11	12	14	16	61.1	60.2	64.7	64.7
Tanzania	58.0	60.2	55.3	73.2	15	15	23	13	52.0	54.5	48.9	69.3
Togo	45.1	55.3	54.2	56.2	24	18	24	23	37.3	48.9	47.7	50.0
Uganda	51.3	54.5	51.5	51.5	19	19	26	26	44.4	48.0	44.5	44.5
Zambia	54.9	54.2	70.1	79.0	16	20	12	10	48.4	47.7	65.8	75.9
Zimbabwe	87.9	81.0	79.5	79.5	7	8	8	9	86.2	78.3	76.5	76.5

Category: Human Development

Sub-Category: Education

INDICATOR: PUPIL-TEACHER RATIO, PRIMARY

The ratio of pupils to teachers in primary school is included in the Index as one measure of the quality of educational instruction. Data are from UNESCO as reported in the World Bank's World Development Indicators (WDI) 2008. The WDI notes for this variable that the ratio is "the number of pupils enrolled in primary school divided by the number of primary school teachers (regardless of their teaching assignment)."¹

In 2006, our estimates suggest that countries with the lowest (best) pupil-teacher ratios include the Seychelles (less than 14 pupils to 1 teacher) and Liberia (19.3 to 1). Liberia's estimates show a marked improvement over earlier estimates: in 2000, the ratio was 38.3 to 1. The highest (worst) pupil-teacher ratios were found in Mozambique (67.4 to 1).

Technical Notes

No figures are available for Angola, the Central African Republic, Malawi, and Somalia.

Other figures are for the given year or closest available, as summarized below:

Figures for 2002 to 2006 are unavailable for Sierra Leone. The 2007 figure is given as a rough estimate for 2005 and 2006.

Figures for Côte d'Ivoire and the Gambia are unavailable for 2005. For Côte d'Ivoire, the 2006 figure is used as an estimate for 2005, while for the Gambia, the estimate is the figure for 2004.

Figures for 2006 are unavailable for Benin, Botswana, Chad, the Comoros, Kenya, Nigeria, São Tomé and Príncipe, the Seychelles, and Swaziland. Figures for 2005 are given as estimates for each of these countries.

Figures for 2005 and 2006 are unavailable for the Democratic Republic of the Congo, Gabon, South Africa and Zimbabwe. The most recent figure before that (2003 for the DRC and Zimbabwe, 2004 for Gabon and South Africa) is given as a rough estimate for both years.

Figures for Guinea-Bissau are unavailable after 2001. The 2001 figure is given as an estimate for 2002, 2005, and 2006.

Figures for the Democratic Republic of the Congo, São Tomé and Príncipe, and the Sudan are unavailable for 2000. The 1999 figures are given as estimates for the DRC and São Tomé and Príncipe and the 2001 figure is given as an estimate for the Sudan.

Figures for Djibouti, Equatorial Guinea, and Namibia are unavailable for 2002. The 2001 figure is given as an estimate. For Equatorial Guinea, the 2003 figure is also given as an estimate for 2005 and 2006.

Figures for Ethiopia are unavailable before 2005. The 2005 figure is given as an estimate for 2000 and 2002.

Figures for Liberia are unavailable for 2001 to 2005. The 2006 figure is used as an estimate for 2005, and the 2000 figure, for 2002.

Data for Nigeria are unavailable for 2001–2002. The 2003 figure is used as an estimate for 2002.

Data for Sierra Leone in 2000 and 2002 are unavailable. The 2001 figure is used as an estimate for both.

1 Last accessed 29 July 2008.

Pupil Teacher Ratio, Primary

UNESCO (as reported in the WDI 2008)

	SCALED DATA:											
	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola												
Benin	52.6	53.0	46.8	46.8	36	36	30	32	43.6	43.2	52.1	52.1
Botswana	26.7	26.4	25.3	25.3	5	3	4	4	81.2	81.6	83.2	83.2
Burkina Faso	48.9	46.0	47.2	45.8	33	29	31	30	49.1	53.2	51.6	53.5
Burundi	56.8	49.1	48.7	54.2	38	34	34	38	37.7	48.8	49.4	41.4
Cameroon	51.9	60.8	48.2	44.1	35	41	33	27	44.8	31.8	50.1	56.0
Cape Verde	28.7	28.8	26.0	25.4	6	5	5	5	78.3	78.2	82.2	83.1
Central African Republic												
Chad	68.6	68.0	63.2	63.2	44	44	41	42	20.5	21.5	28.4	28.4
Comoros	36.8	39.2	35.0	35.0	14	20	15	13	66.5	63.1	69.2	69.2
Congo	60.5	56.2	82.8	54.8	40	38	44	39	32.3	38.5	0.0	40.5
Congo, Democratic Rep.	26.0	34.3	34.3	34.3	3	11	13	12	82.2	70.2	70.2	70.2
Cote d'Ivoire	45.0	43.9	46.1	46.1	26	26	29	31	54.7	56.3	53.1	53.1
Djibouti	32.0	35.6	34.6	33.6	9	14	14	10	73.5	68.3	69.8	71.2
Equatorial Guinea	43.4	43.4	32.0	32.0	23	25	9	8	57.1	57.1	73.6	73.6
Eritrea	47.5	44.1	47.5	47.2	30	27	32	33	51.1	56.1	51.1	51.5
Ethiopia	62.0	62.0	62.0	59.0	41	42	40	41	30.1	30.1	30.1	34.4
Gabon	46.6	42.6	36.0	36.0	29	23	18	17	52.4	58.1	67.7	67.7
Gambia	36.9	37.5	35.3	35.2	15	17	16	14	66.4	65.6	68.8	69.0
Ghana	33.8	32.1	32.8	35.4	11	8	10	15	70.9	73.4	72.4	68.6
Guinea	45.6	47.2	44.9	44.5	28	31	28	29	53.9	51.5	54.9	55.5
Guinea-Bissau	44.1	44.1	44.1	44.1	24	28	26	26	56.1	56.1	56.1	56.1
Kenya	34.4	34.4	39.5	39.5	12	12	21	22	70.0	70.0	62.6	62.6
Lesotho	47.9	47.0	41.6	40.4	31	30	23	24	50.5	51.8	59.6	61.4
Liberia	38.3	38.3	19.3	19.3	19	18	2	2	64.5	64.5	92.0	92.0
Madagascar	48.0	47.5	53.6	48.1	32	32	37	34	50.4	51.1	42.3	50.2
Malawi												
Mali	65.3	56.4	54.4	55.6	43	39	38	40	25.3	38.2	41.1	39.4
Mauritania	45.0	39.1	40.3	41.4	27	19	22	25	54.7	63.2	61.5	59.9
Mauritius	26.1	25.2	22.3	21.7	4	2	3	3	82.1	83.4	87.5	88.5
Mozambique	64.0	67.2	66.3	67.4	42	43	43	44	27.2	22.5	23.8	22.3
Namibia	31.6	31.6	30.8	30.8	8	7	8	7	74.1	74.1	75.2	75.2
Niger	40.7	41.3	43.7	40.0	20	22	25	23	61.0	60.1	56.6	61.9
Nigeria	41.1	36.4	37.2	37.2	21	15	19	18	60.4	67.2	66.0	66.0
Rwanda	54.0	59.0	65.9	65.9	37	40	42	43	41.6	34.5	24.4	24.4
Sao Tome and Principe	36.0	32.7	30.8	30.8	13	9	7	6	67.7	72.6	75.3	75.3
Senegal	50.9	48.9	41.7	39.0	34	33	24	21	46.1	49.1	59.5	63.4
Seychelles	14.7	13.9	13.7	13.7	1	1	1	1	98.6	99.8	100.0	100.0
Sierra Leone	37.3	37.3	44.2	44.2	17	16	27	28	65.9	65.9	55.9	55.9
Somalia												
South Africa	33.5	33.8	35.6	35.6	10	10	17	16	71.4	70.9	68.3	68.3
Sudan	24.0	28.7	29.0	34.3	2	4	6	11	85.1	78.3	77.9	70.2
Swaziland	31.3	31.1	32.9	32.9	7	6	11	9	74.6	74.9	72.3	72.3
Tanzania	41.4	53.0	55.9	52.4	22	37	39	37	60.0	43.1	39.0	44.0
Togo	37.5	35.2	33.6	37.6	18	13	12	19	65.6	68.9	71.2	65.5
Uganda	59.4	52.7	51.7	49.1	39	35	36	35	33.8	43.5	45.0	48.9
Zambia	45.0	42.8	51.1	51.2	25	24	35	36	54.8	57.9	45.9	45.7
Zimbabwe	37.0	39.4	38.6	38.6	16	21	20	20	66.2	62.8	64.0	64.0

Category: Human Development

Sub-Category: Education

INDICATOR: PROGRESSION TO SECONDARY SCHOOL

Progression to secondary school (percentage), from UNESCO as reported in the World Bank's World Development Indicators (WDI) 2008. The percentage "refers to the number of new entrants to the first grade of secondary school in a given year as a percentage of the number of students enrolled in the final grade of primary school in the previous year."¹

Our estimates for 2006 show that over 95 percent of students progressed to secondary school in the Sudan and in Botswana, according to statistics provided to UNESCO. The lowest rates of progression were estimated for Burundi (34.3 percent).

Technical Notes

No figures are available for Angola, the Democratic Republic of the Congo, Equatorial Guinea, Gabon, Kenya, Liberia, Nigeria, Rwanda, Sierra Leone, and Somalia.

Other figures are for the given year or closest available, as summarized below:

Figures for Benin are unavailable after 2002. The 2002 figure is given as an estimate for 2005 and 2006.

Figures for Botswana, Cameroon, the Central African Republic, Chad, the Comoros, Congo, Ethiopia, Lesotho, Mali, São Tomé and Príncipe, and Swaziland are unavailable after 2004. The 2004 figure is given as an estimate for 2005 and 2006.

Figures for 2006 are unavailable for Burkina Faso, Burundi, Cape Verde, Djibouti, Eritrea, Guinea, Madagascar, Malawi, Mauritania, Mauritius, Mozambique, Namibia, Niger, Senegal, the Sudan, Tanzania, Togo, Uganda, and Zambia. Figures for 2005 are used as estimates for each of these countries.

Figures are unavailable before 2001 for Burundi, Cape Verde, Congo, and São Tomé and Príncipe. Figures for 2001 are used as estimates for 2000. For the Comoros, the 2002 figure is used for 2000.

Figures for 1999 are given as estimates for 2000 in South Africa.

Figures for 2001 are given as estimates for 2002 in Côte d'Ivoire, Djibouti, Malawi, Mozambique, and Zambia. For Cameroon, the 2003 figure is used for 2002.

Figures for Ghana are unavailable after 2002. The 2002 figure is used as an estimate for 2005 and 2006.

Figures for the Seychelles and South Africa are unavailable after 2003. The 2003 figure is used as an estimate for 2005 and 2006.

No data were available for the Central African Republic before 2004, for the Gambia after 1999, for Guinea-Bissau after 2000, for Côte d'Ivoire after 2001, and for Zimbabwe after 2002. Figures for 1999 were used as estimates for 2000 for the Gambia and Zimbabwe. However, other years were left as missing values because the situation in each country gives reasons to expect sharp changes in educational outcomes.

¹ WDI notes, last accessed 29 July 2008.

Progression to Secondary School (%)

UNESCO (as reported in the WDI 2008)

	SCALED DATA:											
	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola												
Benin	73.5	51.1	51.1	51.1	13	21	26	26	67.6	39.9	39.9	39.9
Botswana	95.8	97.0	95.1	95.1	2	2	2	2	95.1	96.6	94.2	94.2
Burkina Faso	36.2	39.7	44.4	44.4	33	32	32	32	21.4	25.8	31.7	31.7
Burundi	21.3	21.0	34.3	34.3	36	34	34	34	3.0	2.7	19.1	19.1
Cameroon	26.7	48.1	44.7	44.7	35	23	31	31	9.8	36.1	31.9	31.9
Cape Verde	73.1	72.2	83.8	83.8	14	11	8	8	67.0	66.0	80.2	80.2
Central African Republic			48.1	48.1			28	28			36.2	36.2
Chad	43.8	59.5	51.3	51.3	27	17	25	25	30.9	50.2	40.1	40.1
Comoros	58.2	58.2	63.2	63.2	21	18	17	17	48.6	48.6	54.8	54.8
Congo	64.6	60.0	58.1	58.1	16	16	19	19	56.6	50.9	48.5	48.5
Congo, Democratic Rep.												
Cote d'Ivoire	39.6	39.7			30	31			25.7	25.8		
Djibouti	49.5	48.9	73.1	73.1	25	22	11	11	37.9	37.1	67.1	67.1
Equatorial Guinea												
Eritrea	80.8	82.8	82.7	82.7	9	8	9	9	76.6	79.0	78.9	78.9
Ethiopia	89.8	89.0	91.2	91.2	5	5	4	4	87.7	86.7	89.4	89.4
Gabon												
Gambia	82.3				7				78.5			
Ghana	82.1	86.8	86.8	86.8	8	7	7	7	78.2	84.0	84.0	84.0
Guinea	55.5	47.7	71.2	71.2	22	24	13	13	45.4	35.6	64.7	64.7
Guinea-Bissau	63.2				18				54.9			
Kenya												
Lesotho	60.8	63.5	65.9	65.9	20	13	15	15	51.8	55.2	58.1	58.1
Liberia												
Madagascar	46.6	44.6	54.8	54.8	26	27	22	22	34.3	31.9	44.5	44.5
Malawi	76.1	76.0	72.5	72.5	11	10	12	12	70.8	70.6	66.3	66.3
Mali	51.5	54.2	57.1	57.1	23	20	20	20	40.4	43.7	47.3	47.3
Mauritania	38.2	47.3	48.0	48.0	32	25	29	29	24.0	35.2	36.1	36.1
Mauritius	63.2	62.0	66.7	66.7	19	15	14	14	54.9	53.4	59.2	59.2
Mozambique	40.1	44.5	53.9	53.9	28	28	24	24	26.3	31.8	43.3	43.3
Namibia	89.8	87.9	74.6	74.6	4	6	10	10	87.7	85.4	68.9	68.9
Niger	30.6	42.1	60.2	60.2	34	29	18	18	14.5	28.8	51.1	51.1
Nigeria												
Rwanda												
Sao Tome and Principe	64.5	47.1	55.9	55.9	17	26	21	21	56.4	34.9	45.8	45.8
Senegal	38.9	40.1	50.2	50.2	31	30	27	27	24.8	26.2	38.8	38.8
Seychelles	98.8	99.7	94.9	94.9	1	1	3	3	98.8	100.0	94.0	94.0
Sierra Leone												
Somalia												
South Africa	91.3	95.2	89.7	89.7	3	3	5	5	89.5	94.4	87.6	87.6
Sudan	84.4	90.4	96.7	96.7	6	4	1	1	81.0	88.4	96.2	96.2
Swaziland	76.2	77.1	88.3	88.3	10	9	6	6	70.9	72.1	85.9	85.9
Tanzania	19.8	18.8	46.1	46.1	37	35	30	30	1.2	0.0	33.7	33.7
Togo	65.8	62.5	65.2	65.2	15	14	16	16	58.1	53.9	57.3	57.3
Uganda	40.0	37.8	42.9	42.9	29	33	33	33	26.1	23.4	29.7	29.7
Zambia	49.8	55.2	53.9	53.9	24	19	23	23	38.3	45.0	43.4	43.4
Zimbabwe	74.6	69.7			12	12			68.9	62.9		

Category: Human Development

Sub-Category: Education

INDICATOR: RATIO OF GIRLS TO BOYS IN SCHOOL

The ratio of girls to boys in primary and secondary education (both public and private) is included as a measure of equal educational opportunity. Data are from UNESCO as reported in the World Bank's World Development Indicators (WDI) 2008.¹

Our data for 2006 suggest that at least equal numbers of girls to boys were enrolled in primary and secondary education in the following countries: Botswana, the Gambia, Lesotho, Malawi, Mauritania, Mauritius, Namibia, Rwanda, the Seychelles, and South Africa. The worst inequalities in enrollment were found in Somalia, Chad, Guinea-Bissau, and Côte d'Ivoire, where ratios of enrollment were less than 70 girls to 100 boys.

Technical Notes

Data are unavailable for the Central African Republic.

Other figures are for the given year or the closest available, as described below:

Data are missing for 2006 for Benin, Botswana, Cameroon, Cape Verde, Chad, the Comoros, Kenya, Nigeria, Rwanda, São Tomé and Príncipe, Senegal, the Seychelles, Swaziland, Togo, and Uganda. Data for 2005 are given as estimates for all.

Data are missing for 2005 for the Gambia and Madagascar. Data for 2006 are given as estimates.

Data for Congo and South Africa are missing after 2004. Figures for 2004 are given as estimates for 2005 and 2006.

Data for the Democratic Republic of the Congo and Zimbabwe are missing after 2003. Figures for 2003 are given as estimates for 2005 and 2006.

Data for Côte d'Ivoire and Equatorial Guinea are missing after 2002. Figures for 2002 are given as estimates for 2005 and 2006.

Data for 1999 are given as estimates for 2000 for Angola, Cameroon, the Democratic Republic of the Congo, Madagascar, Nigeria, and Tanzania. For Nigeria and Madagascar, it is also the estimate for 2002. For Angola and Tanzania, the 1999 figures are the most recent estimates available and are thus used for all years of the Index.

Data for 2000 are also missing for Cape Verde, São Tomé and Príncipe, Sierra Leone, and the Sudan. Data for 2001 are given as estimates for all except São Tomé and Príncipe, where the 2002 figure is used.

Data for Burundi are missing before 2003. Figures for 2003 are given as estimates for 2000 and 2002.

Data for Gabon, Liberia, and Somalia are missing after 2000. The 2000 figure is used as an estimate for 2002, 2005, and 2006.

Data for 2001 are given as estimates for 2002 for Rwanda and Guinea-Bissau. For Guinea-Bissau the same figure is used as an estimate for 2005 and 2006.

Data for 2003 are given as estimates for 2002 for Togo and Mali.

Data for Sierra Leone are missing for 2002 to 2006. The 2001 figure is given as an estimate for 2002 and the 2007 figure, for 2005 and 2006.

¹ Last accessed 29 July 2008.

Ratio of Girls to Boys in Primary and Secondary Education (%)

UNESCO (as reported in the WDI 2008)

	SCALED DATA:											
	RAW DATA:				Ranked				Scaled Overall 0-100			
	2000	2002	2005	2006	2000	2002	2005	2006	2000	2002	2005	2006
Angola	85.2	85.2	85.2	85.2	23	24	26	27	57.8	57.8	57.8	57.8
Benin	64.2	67.0	73.5	73.5	44	42	36	38	17.6	22.9	35.4	35.4
Botswana	101.6	101.2	100.3	100.3	3	3	5	7	89.4	88.6	86.9	86.9
Burkina Faso	70.1	72.4	78.3	79.9	37	35	33	34	28.8	33.4	44.6	47.8
Burundi	79.9	79.9	84.0	88.6	30	30	28	25	47.8	47.8	55.5	64.4
Cameroon	82.4	83.0	83.7	83.7	26	26	29	30	52.4	53.6	55.1	55.1
Cape Verde	99.0	99.1	99.3	99.3	6	7	9	11	84.4	84.5	84.9	84.9
Central African Republic												
Chad	55.9	59.2	61.0	61.0	46	46	46	46	1.7	8.1	11.5	11.5
Comoros	84.1	82.2	84.2	84.2	25	28	27	29	55.8	52.2	56.0	56.0
Congo	84.5	87.6	90.2	90.2	24	23	23	23	56.4	62.5	67.4	67.4
Congo, Democratic Rep.	79.8	73.2	73.2	73.2	31	33	38	40	47.5	35.0	35.0	35.0
Cote d'Ivoire	69.1	68.4	68.4	68.4	38	41	44	44	27.1	25.7	25.7	25.7
Djibouti	71.0	71.5	75.6	75.8	35	36	35	35	30.6	31.7	39.6	39.9
Equatorial Guinea	86.3	82.5	82.5	82.5	22	27	32	32	60.0	52.7	52.7	52.7
Eritrea	77.4	74.3	71.7	72.0	32	32	42	42	42.9	37.0	32.0	32.6
Ethiopia	65.1	69.2	77.1	80.5	42	40	34	33	19.4	27.2	42.4	49.0
Gabon	95.8	95.8	95.8	95.8	12	13	17	18	78.2	78.2	78.2	78.2
Gambia	81.7	92.4	98.4	101.8	28	19	13	5	51.2	71.7	83.3	89.7
Ghana	89.4	91.2	92.6	93.9	20	21	21	21	66.0	69.4	72.1	74.6
Guinea	61.3	66.9	72.6	74.4	45	43	41	36	12.1	22.8	33.7	37.2
Guinea-Bissau	65.0	65.0	65.0	65.0	43	45	45	45	19.1	19.1	19.1	19.1
Kenya	97.6	95.1	95.8	95.8	9	15	18	19	81.6	76.9	78.2	78.2
Lesotho	107.2	105.2	103.9	103.9	1	1	1	1	100.0	96.2	93.7	93.7
Liberia	72.7	72.7	72.7	72.7	34	34	40	41	33.9	33.9	33.9	33.9
Madagascar	96.6	96.6	96.0	96.0	10	12	16	16	79.8	79.8	78.5	78.5
Malawi	92.6	93.4	98.9	100.0	18	18	12	10	72.1	73.6	84.1	86.2
Mali	68.5	69.4	72.7	74.4	40	39	39	37	25.8	27.6	34.0	37.1
Mauritania	95.0	96.8	102.8	101.5	14	11	3	6	76.7	80.1	91.6	89.2
Mauritius	98.2	100.3	99.6	103.0	8	5	8	3	82.8	86.7	85.4	92.0
Mozambique	74.9	78.3	83.0	84.7	33	31	30	28	38.2	44.7	53.7	56.9
Namibia	103.3	103.5	103.4	103.8	2	2	2	2	92.5	92.9	92.8	93.6
Niger	65.8	66.5	69.9	70.5	41	44	43	43	20.7	22.0	28.6	29.6
Nigeria	80.8	80.8	83.0	83.0	29	29	31	31	49.4	49.4	53.6	53.6
Rwanda	96.1	98.0	101.9	101.9	11	9	4	4	78.7	82.3	89.9	89.9
Sao Tome and Principe	93.5	93.5	99.0	99.0	16	17	10	12	73.7	73.7	84.3	84.3
Senegal	82.0	85.1	90.8	90.8	27	25	22	22	51.8	57.8	68.6	68.6
Seychelles	101.4	99.5	100.3	100.3	4	6	6	8	88.9	85.3	86.7	86.7
Sierra Leone	70.7	70.7	86.3	86.3	36	38	25	26	30.0	30.0	60.0	60.0
Somalia	55.0	55.0	55.0	55.0	47	47	47	47	0.0	0.0	0.0	0.0
South Africa	100.4	100.5	100.0	100.0	5	4	7	9	87.1	87.2	86.3	86.3
Sudan	88.0	87.6	88.9	89.3	21	22	24	24	63.3	62.5	64.9	65.7
Swaziland	95.4	94.9	94.7	94.7	13	16	19	20	77.4	76.4	76.0	76.0
Tanzania	98.9	98.9	98.9	98.9	7	8	11	13	84.1	84.1	84.1	84.1
Togo	68.8	71.5	73.4	73.4	39	37	37	39	26.5	31.7	35.3	35.3
Uganda	92.8	97.1	97.6	97.6	17	10	14	14	72.3	80.7	81.7	81.7
Zambia	91.3	91.5	92.7	95.9	19	20	20	17	69.6	69.9	72.3	78.3
Zimbabwe	94.5	95.3	96.3	96.3	15	14	15	15	75.6	77.3	79.2	79.2

 RESEARCHER'S REPORT: TERTIARY EDUCATION INDICATORS

Sagita Muco

This is a "Researcher's Report" prepared for the project, but not necessarily representative of the full range of analysis contained in the 2008 Index. For further information on education indicators, see the introduction to the Human Development category and the descriptive notes on the various education indicators.

Tertiary education is an important part of human development and even more so in sub-Saharan Africa, where local capacity is needed for all areas of development. The 2007 and 2008 Indexes of African Governance do not include a tertiary education component directly due to the difficulty of collecting reliable and comparable data across countries. However, we compiled the data, which are summarized here. Even though these data are still inadequate and cannot be incorporated into the 2008 Index, they have been listed below for reference. We hope that they will provide a baseline for further research.

International Data Sources on Tertiary Education

The two most widely used indicators on tertiary education are the Gross Enrollment Rate (GER) and Absolute Enrollment. The most accurate and reliable source of data for both is the UNESCO Institute for Statistics. This section clarifies some definitions and presents the available data on Tertiary GER in sub-Saharan Africa.

What is Tertiary Education?

Tertiary education is comprised of two levels, according to the newly revised International Standard Classification of Education (ISCED) 1997: Level 5 (corresponding to the first stage of tertiary education not leading directly to an advanced research qualification) and Level 6 (corresponding to the second stage of tertiary education leading to an advanced research qualification).¹ Both indicators take into account public and private institutions as well as part-time and full-time students whenever available.

Indicator Definitions²

Absolute Tertiary Enrollment measures the number of pupils enrolled in ISCED 5 and 6 in public and private higher education institutions, part time and full time.

Tertiary Gross Enrollment Rate (GER) measures the number of pupils enrolled in ISCED 5 and 6, regardless of age, expressed as a percentage of the population in the theoretical age group for the same level of education. For the tertiary level, the population used is the five-year age group following from the secondary school leaving age.

Interpretation of Indicators³

Absolute Tertiary Enrollment: This indicator, if calculated for a certain number of inhabitants or for a certain age group, can be used to compare the general level of participation in higher education among countries. It is also used to calculate all the other tertiary education indicators.

Tertiary GER: A high GER generally indicates a high degree of participation, whether the pupils belong to the official age group or not. A GER value of 100 percent indicates that a country is, in principle, able to accommodate its entire school-age population, but it does not indicate the proportion already enrolled. The achievement of a GER of 100 percent is therefore a necessary but not sufficient condition for enrolling all eligible children in school. When the GER exceeds 90 percent for a particular level of education, the aggregate number of places for pupils approaches the number required for universal access

1 UNESCO Institute of Statistics, "International Standard Classification of Education" (1997), available at www.uis.unesco.org/TEMPLATE/pdf/isced/ISCED_A.pdf (last accessed 19 May 2008).

2 UNESCO Institute of Statistics, "Education Indicators: Technical Guidelines" available at www.uis.unesco.org/file_download.php?URL_ID=5202&filename=10526426091UIS_education_indicator_definitions_EN.pdf&filetype=application%2Fpdf&filesize=139152&name=UIS_education_indicator_definitions_EN.pdf&location=user-S/ (last accessed 19 May 2008).

3 Ibid.

of the official age group. However, this is a meaningful interpretation only if one can expect the under-aged and over-aged enrollments to decline in the future to free up places for pupils from the expected age group.

A Note on the Reference Year

As of 2006, the UNESCO Institute for Statistics (UIS) changed its convention for citing the reference year of education data for countries with a school year spreading across two calendar years from the calendar year that begins the school year to the calendar year that ends the school year. For example, a 2003/2004 school year (starting in calendar year 2003 and ending in calendar year 2004), presented previously as “2003,” is now presented as “2004.”

This change was implemented to align the reporting of educational data with other international organizations, in particular the Organization for Economic Co-operation and Development (OECD) and the Statistical Office of the European Union (Eurostat). It also makes sense for most of the countries where there are more months of a school year in the later two calendar years. For example, if a school year starts in September of an earlier calendar year and ends in July of a later calendar year, there are seven months in the later calendar year while there are only four months in the earlier calendar year. Thus, it makes more sense to cite the later calendar year as a reference year.

This change applies only to data from 1998 onward. The reference year for the data prior to 1998 remains the same. Namely, where the school year is spread across two calendar years, the year is cited by the starting year. For example, 1994/1995 is presented as 1994. For this reason the time-series data for the years through 1997 are not consistent with those for 1998 and later. Any time-series analysis should therefore be undertaken with caution.⁴

Data for sub-Saharan Africa⁵

Between 2000 and 2007 data are missing completely for the following sub-Saharan African countries: Côte d’Ivoire, the Democratic Republic of the Congo, Gabon, São Tomé and Príncipe, the Seychelles, and Somalia. Tertiary GER values are also missing for Malawi and Guinea-Bissau. The Seychelles and São Tomé and Príncipe do not have proper higher education institutions or they have extremely low enrollment numbers. In Somalia, the war destroyed the Somali National University; since then Mogadishu University opened as a private institution, but enrollment numbers are extremely low.⁶

The table below shows the latest tertiary GER available from the UNESCO Institute for Statistics.⁷

Table 1. Tertiary Gross Enrollment Ratio

Country	2000	2001	2002	2003	2004	2005	2006	2007
Angola			0.85	3.15	2.37	2.94		
Benin	3.58	4.31	5.02	5.46	5.42	5.27	5.11	
Botswana	3.36	3.93	4.18		4.85	5.12		
Burkina Faso	1.02	1.10	1.35	1.53	1.54	2.21	2.34	
Burundi	1.16	1.15	1.81	1.91	2.33	2.33	2.20	
Cameroon	4.45	4.48	4.91	4.96	4.95	5.71	6.68	
Cape Verde	1.74	1.48	3.57	4.19	5.55	6.93	7.89	
Central African Republic	1.79				1.65	1.59	1.10	
Chad	0.80	0.80		0.89	1.16	1.16		

⁴ See World Bank, Edstats, available at <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTEDUCATION/EXTDATASTATISTICS/EXTEDSTATS/0,,contentMDK:21284843~isCURL:Y~pagePK:64168445~piPK:64168309~theSitePK:3232764,00.html> (last accessed 28 August 2008).

⁵ The data in the table is from the UNESCO Institute for Statistics Data Center from the Custom Table feature of their website available at http://stats.uis.unesco.org/unesco/TableViewer/document.aspx?ReportId=143&IF_Language=eng (last accessed 28 August 2008).

⁶ The Boston College Center for International Higher Education, “Country Profiles,” available at www.bc.edu/bc_org/avp/soe/cihe/inhea/profiles.htm (last accessed 28 August 2008).

⁷ Last accessed 9 July 2008.

Comoros	1.06			2.26	2.27			
Congo	5.03	4.20	3.72	3.73				
Côte d'Ivoire								
Democratic Republic of the Congo								
Djibouti		0.71	1.01	1.22	1.48	2.15	2.38	
Equatorial Guinea	2.74							
Eritrea	0.97	1.26	1.23	1.26	1.00			
Ethiopia	1.10	1.38	1.56	2.20	2.48	2.67	2.43	2.75
Gabon								
Gambia					1.15			
Ghana	2.77	3.15	3.26	3.25	3.15	5.23	4.70	5.84
Guinea				2.25	2.24	3.02	5.29	
Guinea-Bissau								
Kenya	2.75	2.82	2.82		2.75			
Lesotho	2.20	2.37	2.31	2.75		3.44	3.63	
Liberia	15.58							
Madagascar	2.15	2.01	2.02	2.19	2.52	2.61	2.80	
Malawi								
Mali	2.15	2.31	2.31	2.52	2.73	3.02		
Mauritania		3.56	3.13	3.33	3.37	3.09	3.50	
Mauritius	7.47	11.26	11.53	15.74	17.24	16.86	17.15	
Mozambique	0.67			0.93	1.17	1.46		
Namibia		7.07	5.66	5.85	5.84	6.25	5.83	
Niger				0.94	0.93	1.11	1.12	
Nigeria				9.62	9.72	10.15		
Rwanda	1.73	1.70	1.93	2.27	2.61	2.56		
São Tomé and Príncipe								
Senegal				5.03	5.04	5.51		
Seychelles								
Sierra Leone		2.16	2.12					
Somalia								
South Africa	14.35	14.44	14.59	15.29	15.68	15.35	15.41	
Sudan	6.19							
Swaziland	4.40	4.25	4.44	4.39	4.98	4.46	4.16	
Togo	3.06	3.57						
Uganda	2.53	2.74	3.02	3.02	3.47			
United Republic of Tanzania		0.69	0.81	0.93	1.25	1.45		1.48
Zambia	2.34							
Zimbabwe	3.53	4.15	4.06	3.64				

Source: See Note 5

Local Data Sources for Tertiary Education

For the 2008 Index of African Governance, we also collected national data on the number of students enrolled in tertiary education as part of our effort to collect data locally in all Index countries. Each country researcher collected data from official governmental sources, mainly from the ministries of education.

The first problem that was encountered during the process of local data collection was that researchers were not able to collect information on tertiary education enrollment in nearly half the countries. In the cases where the data were collected, in only one third of the countries was there a match between the locally reported data and the internationally reported tertiary

enrollment level from the UNESCO Institute for Statistics. This problem arises mainly because of the use of different definitions. UNESCO reports total tertiary enrollment, including public and private universities, full-time and part-time students. In the local data gathering process, local officials often reported information for only public universities or for only full-time students.

Other Problems with Cross-country Comparison

Apart from a mismatch between local and international sources of data for the tertiary education indicators, information regarding tertiary education was not included in the 2008 Index due to the difficulty in comparing it across countries. The Tertiary GER does not capture several important aspects of student mobility both within and outside of sub-Saharan Africa. Many countries have a significant number of students that are studying abroad in foreign universities. This information is captured by UNESCO through the Outbound Mobility Ratio, which is the number of students from a country studying abroad as a percentage of the total enrollment in that country.⁸ For countries such as Botswana, Cape Verde, the Comoros, Djibouti, and Guinea-Bissau there appear to be more students studying abroad than in country. For other countries such as the Gambia, Lesotho, Namibia, and Swaziland, the students studying abroad total more than half of those studying in country.

Other important information not captured by the Tertiary GER is the overestimation of enrollment because of international students coming to study in different countries of sub-Saharan Africa, mainly as a result of mobility among this region. This information is captured by UNESCO through the Inbound Mobility Ratio, which is the number of students from abroad studying in a country as a percentage of total tertiary enrollment in that country.⁹ The data for this indicator are much harder to gather and are missing completely for twenty-nine sub-Saharan African countries. However it appears that in the Central African Republic, 10 percent of students are international and in South Africa, around 7 percent of students are international.

8 UNESCO Institute of Statistics, "Education Indicators: Technical Guidelines," available at www.uis.unesco.org/file_download.php?URL_ID=5202&filename=10526426091UIS_education_indicator_definitions_EN.pdf&filetype=application%2Fpdf&filesize=139152&name=UIS_education_indicator_definitions_EN.pdf&location=user-S/ (last accessed 9 July 2008).

9 Ibid.