STRENGTHENING AFRICAN GOVERNANCE

INDEX OF AFRICAN GOVERNANCE RESULTS AND RANKINGS

2009

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A Project of The Program on Intrastate Conflict and Conflict Resolution at The Kennedy School of Government, Harvard University

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The World Peace Foundation

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 $\ensuremath{\mathbb{C}}$ The President and Fellows of Harvard College and Robert I. Rotberg

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NEW IN THE

2009 INDEX OF AFRICAN GOVERNANCE

1. The Index of African Governance now includes detailed scores and rankings on all fifty-three African countries, adding assessment of the five North African countries to the forty-eight sub-Saharan African countries assessed in previous editions.

2. The Index now uses raw data collected by in-country affiliates in thirty-eight of the fifty-three countries of Africa. Where and when appropriate, the Index supplements its assessments of Africa through internationally comparable data with data collected by its own researchers in those countries.

3. The Index is now subject to a thorough sensitivity analysis, rigorously undertaken for the Index by an outside research team.

4. The Index is now capable of being displayed and its data arrayed in a variety of useful ways and places.

5. The 2009 Index continues the 2007 and 2008 Ibrahim Indexes of African Governance, using the methods pioneered by Robert I. Rotberg and Rachel M. Gisselquist in those years. This is a continuation of the original Index.

6. The 2007 and 2008 Ibrahim Indexes, and the first four months of research on the 2009 Index were generously supported by the Mo Ibrahim Foundation. Since the end of 2008, there has been no official connection between the Mo Ibrahim Foundation and this Index. It is now backed by the World Peace Foundation of Cambridge, Massachusetts and remains based in the Program on Intrastate Conflict in the Harvard Kennedy School.

For details on the first five new items above, please see the end of the first essay in this Index, "The Meaning of Governance: Ranking Africa."

THE RESEARCH TEAM

2009

The Index of African Governance is compiled and updated annually by a team of researchers at Harvard University and across Africa, under the leadership of Robert I. Rotberg and Rachel M. Gisselquist. The 2007 and 2008 editions of the Index were published as the Ibrahim Index of African Governance. In the first edition, published in 2007, Rotberg and Gisselquist set out the Index's basic framework and theory of governance, building on earlier work by Rotberg. The Index and all of its data have been revised annually to reflect the latest research and best data currently available. The project has been advised by a distinguished Executive Council of African scholars and business leaders, whose names are listed below.

Although based at Harvard's Kennedy School, the Index of African Governance project is committed to African involvement—particularly of scholars and students—and to the transition of the project to African counterparts. The Index's team, both at Harvard and in Africa, reflects that commitment.

Since 2008, Rotberg and Gisselquist have built a team of research affiliates (institutions and individuals) throughout the continent. They have collaborated on the collection of basic data for the Index in thirty-eight countries. In 2009, affiliates in twenty-nine countries submitted data collection questionnaires. The 2009 Index also drew on data collection completed during 2007-2008 by research affiliates in nine additional countries. These research affiliates lend a wide range of experience; while most are in academia or national statistical agencies, others are from the NGO sector, in journalism, or have independent consulting backgrounds. Each year, this (growing) team of in-country researchers diligently collects official statistics and other information on a range of indicators from sources in their countries. Many of these in-country researchers, well-respected scholars and analysts, also share their insights on the reliability of the figures and the Index project more generally. As anyone who has conducted research in Africa will know, this task is far from straightforward: Many countries lack the resources to produce basic statistics in a timely way. Many others do not make public the information that they do collect. Although government agencies in some countries have provided extensive support for our project, in other countries the relevant agencies have cooperated less fully with our researchers.

In addition to this team of in-country researchers, the Index project, from its inception, has worked with a talented and international group of graduate student researchers at Harvard, including African students from across the continent. This Harvard-based team provides assistance with quantitative analysis and with coding projects, compiles data from international sources, and conducts literature reviews and desk studies. Several of our Harvard research assistants have also contributed published papers to the Index.

Finally, since 2008, the Index project has actively sought to build and deepen collaborative research with African academics and analysts. As part of this effort, the project in October 2008 held a workshop on the Ibrahim Index at Harvard (funded by the Mo Ibrahim Foundation and the World Peace Foundation). The workshop brought together for a week of discussions scholars from universities in Benin, Botswana, Burkina Faso, Ethiopia, Mauritius, Nigeria, Senegal, South Africa, and Tanzania. Rotberg and Gisselquist have also met directly with other scholars during trips throughout the region to solicit feedback, to learn about the latest research on the continent, and to introduce the Index as a research and teaching tool.

Rotberg and Gisselquist invite those interested in working with the Index project to contact them directly. They are especially interested in contacts from countries where the project currently lacks an in-country research affiliate.

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IN-COUNTRY RESEARCH AFFILIATES

The following individuals and organizations assisted with in-country data collection in the 2009 and 2007-2008 research cycles. The statistics compiled by these researchers have been invaluable in the development of the Index. Although not all of the numbers compiled are cross-nationally comparable (and thus cannot currently be included directly in our dataset), all statistics gathered inform the project and many are used and cited throughout this report. The Index project continues to work toward greater use of local numbers.

Benin:	Edgar Sasse for the Institut de Recherche Empirique en Economie Politique (Cotonou) (in 2007–2008)
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Mozambique:	International Capital Corporation (Maputo)
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	l'Institut Nationale de la Statistique (Niamey), collaborated on the research.)

¹ In 2007–2008, figures were provided directly by the relevant ministries through the support of a formal request from the Ambassador of Djibouti to the United States and the United Nations, and further accelerated by a directive from the Executive Office in Djibouti to all the relevant ministries to gather and prepare the requested national data. Data collection for Harvard University was coordinated by Abdulrahman R. Olhaye with assistance from local counterparts.

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Zambia:	George M'hango, Central Statistical Office (in 2009)
Zimbabwe:	Usha Patel, ICC-Zimbabwe
	(In 2007–2008, Dambudzo Muzenda, M.P.P., Harvard Kennedy School, collaborated on research.)

OCTOBER 2008 WORKSHOP

Beginning in February 2008, the Index project invited members of African universities and research institutes to participate in a workshop at Harvard on governance and the Index. The following organizations were selected to participate on the basis of their applications and sent the following nominated participants:

Addis Ababa University

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ACKNOWLEDGEMENTS

The purpose of the Index is not to rank, per se, but to offer African governments, civil societies, donors, and investors a complex method of diagnosing the way in which each of Africa's countries are governed, as compared to each of the other governments in Africa. By noting which indicators lag and which have advanced, governments can improve outcomes for their populations. Civil societies can agitate for improvements in certain identifiable sectors. The title of the published version of the Index each year is *Strengthening African Governance*. That, and bettering the lives of all of Africa's peoples, is the overriding purpose of the Index. Since 2007, the Index project has benefited from the generous advice and gracious assistance of many individuals and organizations both in and outside of Africa who share this objective, and have used and commented on the Index. Although we have not directly incorporated all suggestions, the Index has been greatly strengthened each year by much of this collective wisdom.

The 2009 Index is once again the product of many minds and hands. We gratefully acknowledge the work of our talented research assistants and growing team of in-country research affiliates, whose names are listed above. We also thank the members of our Executive Council, also listed above, who have shared expert advice and backed the project since 2007. Once again, Emily Wood provided invaluable editorial assistance and superbly managed the lengthy publication process.

A number of offices and individuals in the respective countries graciously assisted us and our affiliates with in-country research and data collection. We extend a special thanks in this year to Assefa Admassie, Mohamed Arteh, Dan Connell, Ahmed Diriye, Ahmed Hersi, Dan Hymowitz, Martha Kaanduka, Muyangwa Muyangwa, Bayo Okunade, Rolph Payet, Steven Radelet, Patrick Reilly, Amos Sawyer, David Sebudubudu, Anastase Shyaka, and Jackson Wonde.

For their expert and generous advice on indexes and our method, we are grateful to Paola Annoni, Michela Nardo, Jochen Jesinghaus, Micheala Saisana, Andrea Saltelli, and colleagues at the Joint Research Centre of the European Commission. Annoni, Nardo, and Saisana's statistical analysis of our 2008 Ibrahim Index is summarized in this report. Jesinghaus' "Dashboard of Sustainability" has proved an invaluable tool. In Rwanda, the Rwandan Ministry of Local Government, Ministry of Finance and Economic Planning, and Governance Advisory Council hosted a day long meeting on the 2008 Ibrahim Index. We thank in particular the participants in our October 2008 workshop on governance. We remain very grateful to Elisa Pepe and David Weil of the African Successes Project at the National Bureau of Economic Research; Merce Crosas and colleagues at the Institute for Quantitative Social Science, Harvard; Peter Bol, Ben Lewis, and the AfricaMap Project, Harvard; David L. Richards and David Cingranelli of the Cingranelli-Richards Human Rights Data Project; Christopher Murray of the Institute for Health Metrics and Evaluation, University of Washington; and Matt Andrews, Jeff Frankel, Calestous Juma, Lant Pritchett, and Christopher Stone at the Harvard Kennedy School; all offered excellent advice and vigorous counsel, some of which we were unable to take.

Philip Khoury, chair, and each of the other members of the Board of Trustees of the World Peace Foundation were closely involved with this Index and its several predecessor studies and offered excellent and welcome support along with the equally important backing received from Director Graham Allison and the Belfer Center for Science and International Affairs at the Kennedy School. We are also appreciative of support for the first four months of this Index from the Mo Ibrahim Foundation.

THE MEANING OF GOVERNANCE: RANKING AFRICA

The Index of African Governance (together with its book-length report, Strengthening African Governance) has been published annually since 2007.¹ The 2007 and 2008 editions were generously supported by a grant from the Mo Ibrahim Foundation and are known as the Ibrahim Indexes of African Governance. The introductory essay to the first edition of Strengthening African Governance set out the Index's basic framework and theory of governance, building on earlier work by Rotberg.² Since then, the authors have revised the rankings and report annually to reflect continuing work on the topic, discussions and collaborations with other experts (especially in Africa), and the release of new, better data. The 2009 edition of the introductory essay (below) is thus freshly updated. The authors invite all constructive comments and collaborations as they begin work on the 2010 Index of African Governance.

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. These 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, a chance to prosper, or access to decent schools, well-run hospitals, and carefully-maintained roads.

This 2009 Index of African Governance measures the degree to which each of these five categories of political goods is provided within Africa's fifty-three (forty-eight in prior Indexes) countries. 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, 2006, and 2007 (the last years with reasonably complete available data for nearly all African nation-states). For those analysts who would like separately to explore the performance of countries on various aspects of governance, the Index includes scores in each of the five categories.

Prior editions of the Index assessed governance in the forty-eight countries of sub-Saharan Africa. This year, we have expanded our coverage to include North Africa (Algeria, Egypt, Libya, Morocco, and Tunisia) based on comments from our readers who highlighted the importance of assessing governance in all countries on the continent and all members of the African Union. This year's Index assesses all African Union countries except Western Sahara. Because Western Sahara is not recognized by many countries outside of the African Union, there is insufficient information on its governance available at this time. In addition, the 2009 Index provides a new assessment of Morocco, the only country on the continent that is not a member of the African Union.

¹ The research for this edition's first four months was also supported by the Mo Ibrahim Foundation.

² See, for instance, Robert I. Rotberg, "Strengthening African Governance: Ranking Countries Would Help," *The Washington Quarterly*, XXIV (2004), 71–81; Robert I. Rotberg, "Improving Governance in the World: Creating a Measuring and Ranking System," in Rotberg and Deborah West, *The Good Governance Problem: Doing Something About It*, WPF Report 29 (Cambridge, MA, 2004), 3–30; Robert I. Rotberg, "On Improving Nation-State Governance," *Daedalus* (Winter 2007).

The Index is updated annually. This includes updating the sources of information for the indicators in our Index in order to use the best data currently available. Unlike many other projects, we also update the Index backward in each year; all data for all years are presented using the latest available sources. This allows the Index to be used to demonstrate comparatively how each of the fifty-three countries has shown progress or has retrogressed over time.

In focusing on its five categories, the Index takes a broader view of governance than some other projects that treat governance as relating only to the rule of law, democracy, and human rights. This narrow definition of governance is essentially what is called "political governance" in the African Peer Review Mechanism (APRM).³ Defining "good governance" as equivalent to good political governance, we argue, is too narrow. It ignores the central responsibilities of state governments to provide safety and security, as well as to provide for a basic level of well-being for their citizens. Moreover, our African advisors insist that the broader categories reflect African governmental performance more accurately and fully.

The importance of socio-economic rights, in addition to civil and political rights, is highlighted in the African context. Indeed, the African (Banjul) Charter on Human and Peoples' Rights notes that "civil and political rights cannot be dissociated from economic, social and cultural rights in their conception as well as universality and that the satisfaction of economic, social and cultural rights is a guarantee for the enjoyment of civil and political rights."⁴ Similarly, the APRM includes socio-economic development and economic and corporate governance, in addition to political governance, among its four focus areas.⁵ In the 1995 *Cairo Agenda for Action*, Heads of State and Government of the Organization of African Unity (OAU) highlighted the close relationship between "peace, democracy, and development," noting that "democracy, good governance, peace, security and justice are among the most essential factors in African socio-economic development."⁶

As the *Cairo Agenda* highlights, the term "governance" is sometimes used in the African context in the narrow sense; the broad definition employed in our Index of African Governance, however, is also widely and strongly in use on the continent. (In order to satisfy both user preferences, we do provide rankings using both governance approaches.)

The rest of this essay summarizes the Index's structure, uses, and underlying epistemology. It concludes with a summary of what is new in this year's Index. A more in-depth discussion of methodological choices is presented in the third essay, "Measurement, Methods, and More." In addition, this year's Index report includes the "Executive Summary" and "Conclusions" of an independent statistical evaluation of the Index methodology by Michaela Saisana, Paola Annoni, and Michela Nardo, of the Joint Research Centre of the European Commission. The study finds that the 2008 Ibrahim Index "can reliably be used to identify weaknesses and possible remedial actions, to make easy spatial and temporal comparisons (benchmarking), to prioritize African countries with relatively low levels of governance, and ultimately to monitor and evaluate policy effectiveness."⁷ The full publication, entitled *A Robust Model to Measure Governance in African Countries*, is available on our website. Finally, for a comparison of the Index of African Governance and other related indices and assessments, readers may refer to our essay, "Indices and Governance," published in the 2008 Ibrahim Index and available on our website.

³ The APRM also discusses economic governance and corporate governance. It includes a fourth focus area on socio-economic development.

⁴ African (Banjul) Charter on Human and Peoples' Rights Preamble, paragraph 7 (adopted 27 June 1981, OAU Doc. CAB/LEG/67/3 rev.5, 21 I.L.M. 58, 1982; entered into force 21 October 1986).

⁵ See also Georges Nzongola-Ntalaja, "MAP Draft Programme of Action: Creating Preconditions for Sustainable Development," presented in Abuja, Nigeria, 28 May 2001.

⁶ Organization of African Unity, Relaunching Africa's Economic and Social Development: The Cairo Agenda for Action (Addis Ababa, 1995), 6, as cited in Nzongola-Ntalaja, 4.

⁷ See A Robust Model to Measure Governance in African Countries, 5.

Categories and Sub-Categories

The Index of African Governance provides more than an overall ranking of countries. Within each of its five broad categories, separate evaluations and report cards concerning the attainments of each of the fifty-three countries 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, comprised 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 fifty-three 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.

The structure of the Index categories and sub-categories is summarized in Table 1 below. In the calculation of the Index, categories are each weighted equally within the overall Index, and sub-categories are each weighted equally within each category, with the one exception of Safety and Security. In the category of Safety and Security, the two sub-categories, National Security and Public Safety, are weighted two-thirds and one-third, respectively.

Table 1. BASIC STRUCTURE OF THE INDEX OF AFRICAN GOVERNANCE			
Category	Sub-Category		
	1. National Security (2/3rds of the Safety and Security Category)		
I. SAFETY AND SECORITY	2. Public Safety (1/3rd of the Safety and Security Category)		
	1. Ratification of Critical Legal Norms		
II. RULE OF LAW, TRANSPARENCY, AND CORRUPTION	2. Judicial Independence and Efficiency		
	3. Corruption		
	1. Participation in Elections		
III. PARTICIPATION AND HUMAN RIGHTS	2. Respect for Civil and Political Rights		
	1. Wealth Creation		
IV. SUSTAINABLE ECONOMIC OPPORTUNITY	2. Macroeconomic Stability and Financial Integrity		
	3. The Arteries of Commerce		
	1. Poverty		
V. HUMAN DEVELOPMENT	2. Health and Sanitation		
	3. Education		

The detailed structure of Index indicators, sub-categories, and categories is summarized in Table 2 at the end of this essay. Each of the Index indicators (sub-sub-categories) is also weighted equally within each sub-category, with one exception. In the category of Participation and Human Rights (in the sub-category of Respect for Civil and Political Rights), the Women's Rights indicator is made up of three separate indicators, Women's Economic Rights, Women's Political Rights.

Each category of the Index is presented in a separate section of this report. A table at the beginning of each section provides a more detailed summary of the structure and sources of each indicator in that category. Scores and rankings by category, sub-category, and indicator are also displayed and discussed.

Diagnostic Utility

The broader 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 third 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 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 figures 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 has 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 endowments and baseline GDP compilations could be used to disaggregate our fifty-three African cases for purposes of ranking, in addition to the overall ranking method that we have adopted since the 2007 Ibrahim Index of African Governance. However, we still need first to compare the attainments of all countries in Africa against their peers, irrespective of their wealth or size, or irrespective 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 and controversial ground. Many economists prefer to limit governance to the rule of law, efficient management, 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 governmental 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.

The Meaning of Governance: Ranking Africa

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 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, welcome all suggestions and constructive criticisms. The ultimate goal of the Index 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 2009 Index has two main sections. The first section gives the overall 2007 country rankings and scores for each of Africa's fifty-three countries, along with an essay describing those rankings. Those scores are equal to the average sum of the scores of the five categories by which governance is measured, on a 0–100 scale. Category scores are, in turn, averages of sub-category scores, and sub-category scores are averages of indicator scores.

Index rankings follow straightforwardly from Index 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 together with country scores, which provide important information about the magnitude of differences in performance between countries, some of which may be tiny.

The overall scores for 2000, 2002, 2005, 2006, and 2007 are also presented and described in this first section of the report. Category scores for 2007 are presented here as well. In addition, this first section includes several essays regarding the Index's methodology.

The second section of the 2009 report, divided into five sub-sections, 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 for each category, listed in ranked order and alphabetically for the years 2000, 2002, 2005, 2006, and 2007.

In each category section, following the summary tables, for each indicator, there is a descriptive note and table providing comprehensive statistics and scores for 2000, 2005, 2006, and 2007. Data for 2002 are not listed in this year due to space constraints; however, the full dataset including all Index years is available online through our project website. Descriptive notes range from one to eleven pages, and provide detailed information and discussion about the sources of our data, methods, and results. Our aim is to be fully transparent.

In the 2007 and 2008 Ibrahim Indexes of African Governance, we included selected "researcher's reports," which are descriptive notes prepared by our researchers as background material for the Index. These previous researcher's reports include discussions of legal indicators of small arms reduction, the measurement of corruption, the measurement of income inequality, and higher education (2008 Ibrahim Index), and of the measurement of crime, elections indicators, and data sources on gender (2007 Ibrahim Index). In the 2009 Index of African Governance, we include a researcher's report on the measurement of gender-based violence.

What is New in this Year's Index

The Index team continues to work with scholars and other experts to analyze and build on Index results. As the result of this continuing work, the 2009 Index of African Governance includes five new components:

1. For the first time, we include the North African countries. Previously, only sub-Saharan countries were included in the Index. Because the North African countries are part of Africa, we include them now, despite great differences in human development, infrastructure, economic growth, and participatory outcomes, north and south.

2. A "country response" from Rwanda, which critically analyzes the 2008 Ibrahim Index results for Rwanda and explores comparisons with local studies. The Index team invites other African scholars and local experts to submit other country responses.

3. A summary of the detailed multivariate, uncertainty, and sensitivity analysis and evaluation of the 2008 Ibrahim Index of African Governance, authored by Michaela Saisana, Paola Annoni, and Michela Nardo of the Joint Research Centre of the European Commission. The full report is available through our website.

4. A brief summary of results for "political governance" or "traditional governance"—the categories of Rule of Law, Transparency, and Corruption; and of Participation and Human Rights—as distinct from the three other Index categories. This summary allows readers easily to compare our results with those of other studies of governance that employ a more narrow definition of governance.

Additional working papers and longer studies will be published throughout the year on our project website. We invite scholars and experts to discuss research projects with us.

5. New ways of displaying the Index results: Thanks to the cooperation of a number of colleagues, Index of African Governance data can now be accessed and analyzed using several different methods. The following analysis tools are available through our website and at the links below:

- Index of African Governance "Dashboard of Sustainability:" The Dashboard is a free, non-commercial software package that allows users to study complex relationships among indicators. The Index of African Governance Dashboard provides the latest Index data ready for analysis, with several different display options. The package was developed by the International Institute for Sustainable Development (IISD) and the European Commission's Joint Research Centre (JRC) to study economic, social, and environmental issues in order to contribute to an informed debate about development policy options.
- Index of African Governance in "AfricaMap:" AfricaMap is a platform for displaying and analyzing spatial data on Africa. The incorporation of Index results into AfricaMap allows users to display and analyze results along with other data available through the project. AfricaMap is based on the Harvard University Geospatial Infrastructure (HUG) platform, and was developed by the Harvard Center for Geographic Analysis.
- Index of African Governance "Dataverse:" Index datasets are now available in Stata and Excel formats through the Institute for Quantitative Social Science (IQSS)'s Dataverse Network Project: http://dvn.iq.harvard.edu/dvn/dv/governance.
- National Bureau of Economic Research (NBER) listing: Index datasets are also available through the NBER's Data Collection at www.nber.org/data/iag.html.

The Meaning of Governance: Ranking Africa

The makers of the Index are very grateful in this year for the extensive feedback they have received from a number of African analysts, scholars, universities, and research organizations and from members of the Joint Research Centre of the European Commission, as well as the collaboration of numerous national statistical agencies and ministries across the continent, the National Bureau of Economic Research's African Successes Project, the Institute for Quantitative Social Science's Dataverse Network Project, the Harvard Center for Geographic Analysis's AfricaMap project, the Cingranelli-Richards (CIRI) Human Rights Data Project, and the trustees of the World Peace Foundation. A full list of warm acknowledgments is included at the beginning of this report.

Table 2. DETAILED STRUCTURE OF THE INDEX OF AFRICAN GOVERNANCE					
Category Sub-Category Sub-sub-Categories (Indicators)					
		Government Involvement in Armed Conflicts			
		Number of Battle Deaths			
	1 Netten al Consulta	Number of Civilian Deaths Due to One-Sided Violence			
I. SAFETY AND	1. National Security	Refugees and Asylum Seekers Originating From the Country			
SECURITY		Internally-Displaced People			
		Ease of Access to Small Arms and	d Light Weapons		
	2. Public Safety	Level of Violent Crime (Homicide Rate)			
		Ratification of Core Internation	Ratification of Core International Human Rights Conventions		
	1. Ratification of Critical Legal Norms	International Sanctions			
		Property Rights			
II. RULE OF LAW,		Judicial Independence			
CORRUPTION	2. Judicial Independence and Efficiency	Efficiency of the Courts, based o	n the Pre-Trial Detainees		
		Number of Days to Settle a Contract Dispute			
	3. Corruption	Public Sector Corruption			
		Free and Fair Executive Elections			
	1 Development on the Elevelopment	Opposition Participation in Executive Elections			
	1. Participation in Elections	Free and Fair Legislative Elections			
		Opposition Participation in Legislative Elections			
III. PARTICIPATION		Respect for Physical Integrity Rig	hts		
AND HUMAN RIGHTS		Respect for Civil Rights			
		Press Freedom			
	2. Respect for Civil and Political Rights		Women's Economic Rights		
		Women's Rights	Women's Political Rights		
			Women's Social Rights		

Category	Sub-Category	Sub-sub-Categories (Indicators)
		GDP per Capita (PPP)
	1. Wealth Creation	GDP per Capita (TT)
		Inflation
	2. Macroeconomic	Government Surplus/Deficits as a Percentage of GDP
IV SUSTAINABLE ECONOMIC	Stability and Financial	Reliability of Financial Institutions (Contract Intensive Money)
OPPORTUNITY	Integrity	Business Environment (Number of Days to Start a Business)
		Density of Paved Road Network
	3 The Arteries of	Electricity Installed Capacity per Capita
	Commerce	Phone Subscribers per 100 Inhabitants
		Internet Usage per 100 Inhabitants
		Poverty Rate at the National Poverty Line
	1. Poverty	Poverty Rate at the International Poverty Line (\$1.25 per person per day, PPP)
		Inequality (GINI Index)
		Life Expectancy at Birth
		Child Mortality
	2. Health and Sanitation	Maternal Mortality
		Undernourishment
		Immunization Rate for Measles
		Immunization Rate for Diphtheria, Pertussis, and Tetanus (DPT)
		HIV Prevalence
		Incidence of Tuberculosis
V. HUMAN DEVELOPMENT		Physicians per 1,000 People
		Nursing and Midwifery Personnel per 1,000 People
		Access to Improved Sanitation Facilities
		Access to Drinking Water
		Adult Literacy Rate
		Adult Literacy Rate, Female
		Primary School Completion Rate
	3. Education	Primary School Completion Rate, Female
		Progression to Secondary School
		Ratio of Girls to Boys in Primary and Secondary Education
		Pupil-Teacher Ratio

Table 2 (cont). DETAILED STRUCTURE OF THE INDEX OF AFRICAN GOVERNANCE

THE 2009 RESULTS: INDEX OF AFRICAN GOVERNANCE

The top performers in this year's Index of African Governance are Mauritius, the Seychelles, Cape Verde, and Botswana. Next, because this year we include all of Africa, including the countries of North Africa, is Tunisia, followed by Ghana, Algeria, Namibia, South Africa, and São Tomé and Príncipe, in tenth place. Mauritius heads the list with a score of 86 points out of a perfect 100. It is an "all around" performer, ranking in the top three in all five categories of the Index. The next six countries all score in the 70s, and the final three dip slightly under 70. Scores are based on data for 2007, the latest year for which data are reasonably complete for all countries.

As the category scores demonstrate, Tunisia and Algeria score as well as they do overall *despite* very low scores on participation and respect for civil and political rights. South Africa scores well despite very low scores in safety and security. Indeed, all three of these countries are buoyed in the overall rankings by their relative wealth and development compared with other countries on the continent, as can be seen in the disaggregated scores. Tunisia, for instance, has an appalling human rights record, but rates so well in terms of human development, economic opportunity, and security that those scores compensate for appropriately low results in the regard for human rights area.¹ Indeed, the North African nation-states generally score relatively high overall, despite poor rankings in the participation and human rights category. In sub-Saharan Africa, Gabon, this year in eleventh place, shows a similar trend, benefitting in the overall rankings by being secure, despite low participation scores. High income levels also give Gabon a big boost. South Africa, by contrast, does well because only in the safety sub-category does it perform abysmally, exhibiting very high homicide and crime rates.

At the bottom of this year's rankings, the worst performing ten countries are: Somalia, the Sudan, Chad, the Democratic Republic of the Congo, Côte d'Ivoire (because of continuing conflict in 2007, and other issues), the Central African Republic, Eritrea, Angola (despite its oil riches), Zimbabwe, and Guinea.²

Just above Guinea, at numbers 37 through 43 are Ethiopia, Nigeria, Burundi, Liberia, Equatorial Guinea, Swaziland, and Congo (Brazzaville), in that order. Nigeria, despite its vast oil wealth, suffers as in previous years by weak scores for safety and security, participation, rule of law, and human development.

As some of our readers have highlighted to us, a narrower approach to governance is often useful and consistent with some other (but not all) projects on governance. Thus, this year we also display rankings according to this "traditional" or "narrow" governance approach in order to facilitate comparisons across studies (see page 23). This approach is equivalent just to our categories of "Rule of Law, Transparency, and Corruption" and "Participation and Human Rights." If we thus exclude "Safety and Security," "Sustainable Economic Development," and "Human Development," the high performing list is still led by Mauritius, with Cape Verde moving up to second place and Botswana in third, but the North African states do not do as well. Thus, by this narrower method, the top ten countries, based on 2007 scores, would be: Mauritius, Cape Verde, Botswana, South Africa, Ghana, Namibia, the Seychelles, Lesotho, Benin, and São Tomé and Príncipe. The bottom eleven countries would be: Somalia (number 53), the Sudan, Eritrea, Libya, Angola, Equatorial Guinea, Côte d'Ivoire, Chad, Guinea, and Egypt.

¹ See Clement Henry, "Tunisia's 'Sweet Little' Regime," in Robert I. Rotberg (ed.), Worst of the Worst: Dealing with Repressive and Rogue Nations (Washington, D. C., 2007), 300–324.

² For additional views on Zimbabwe, see Robert I. Rotberg, "Winning the African Prize for Repression: Zimbabwe," in Ibid, 166–192.

As in previous editions, this 2009 Index of African Governance has benefited from several improvements, and new and enhanced sources of data. The previous essay, "The Meaning of Governance," explains the core method employed in the 2009 Index of African Governance (and in the 2007 and 2008 Ibrahim Indexes), as well as the exact ways in which the 2009 Index has been improved. To make it possible carefully to study improvements and declines in governance for each country, all changes have been incorporated retrospectively for all years in the 2009 Index (2000, 2002, 2005, 2006, and 2007). This report includes complete data on four years, and the full dataset is available through our website. Analysts, as per usual practice, should refer to the latest version of the data when making comparisons over time.

Improvements and Slippages

Looking at Index scores over time, the 2009 Index shows clearly that many aspects of good governance are slow to change, despite policy reforms and the efforts of leaders. However, one of the fastest ways that authoritarian countries can improve their quality of governance is to allow citizens to chose their leaders—i.e., to bring to political office leaders chosen in free, fair, and competitive elections.³ Conversely, one of the fastest ways countries can reduce their quality of governance is to boot out elected leaders. In addition, in assessing relative changes over time, it is also important to take into account a country's starting point: while countries at the top of the rankings certainly can improve their scores, dramatic year-to-year changes are more likely for countries in the middle and bottom of the rankings where there is more room for improvement.

In the latest two years covered in the Index (2006 and 2007), the "most improved" country in terms of governance scores was Mauritania, which returned to democratic rule after its 2005 coup through presidential elections in March 2007, and legislative elections at the end of 2006. While these elections were by no means perfect, they were judged to be generally free and fair by national and international observers. Mauritania's suspension from the African Union was lifted in 2007. (Mauritania's improvements, however, were unfortunately short-lived. In August 2008, the democratically elected president was overthrown in a military coup.)

The Democratic Republic of the Congo (DRC), which ranks near the bottom of the Index in all years, also showed improvement between 2006 and 2007. The inauguration of a new president and National Assembly, brought to office in elections judged to be generally free and fair (although also flawed) by the international community, made the difference. This improvement notwithstanding, as the Index illustrates, the DRC's security situation declined notably between these years, and it is in no way a governance success.

Looking at all years covered in the Index, from 2000 as compared to the most recent year (2007), the most improved country is Burundi, followed by Rwanda and Angola. Each of these post-conflict countries showed major improvements in terms of security between 2000 and 2007, continuing challenges notwithstanding. Burundi and Rwanda also retired their transitional governments and brought to office leaders chosen in elections, which were judged to be flawed, but at least partially free and fair, by most observers.

Anomalies and Chronological Notations on the 2009 Index

As was the case for the 2007 and 2008 Ibrahim Indexes of African Governance, this year's Index of African Governance is based on the most complete statistics available, which require a two year lag. The 2009 Index thus is based on international and locally acquired data for the 2007 year and does not reflect the myriad social, economic, and political upheavals affecting Africa during 2008 and 2009. We are aware of them, but cannot let these major changes distort our results, which depend on internationally supplied and locally supplied hard numbers that are simply unavailable in a consistent manner after 2007. The events and alterations of 2008 will be captured in next year's Index.

³ This point is of course tied to the Index's methodology. We argue, however, that it also holds more generally, even with many other conceptualizations of governance.

As a result, Zimbabwe's massive economic and political collapse and the terrible troubles of post-electoral Kenya are not fully captured in this year's results. Nor is the turmoil in Guinea-Bissau and Mauritania, the horrific results of war in the DRC, political shenanigans in other nation-states, and positive improvements in a few. 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.

Somalia, in last place this year as it has been in all years of the Index, has slipped in scores as well, 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. This year the makers of the Index had intended to include Somaliland as a fifty-fourth African polity, breaking out that unrecognized, politically organized, de facto state from the the larger geographical expression of Somalia, but even local research carried out in Hargeisa, the capital of Somaliland, could not supply sufficient data points to include Somaliland in our Index. At present, this insufficiency seems to reflect the difficulty of setting up a national statistics system from scratch rather than a lack of will or lack of cooperation with our researchers. Similarly, the Index is not able in this year to include Western Sahara, which is recognized by the African Union, but by few other international organizations.

THE 2009 INDEX OF AFRICAN GOVERNANCE RANKINGS

Rank	Country	Score Based on the Latest Index Year (2007)
1	Mauritius	85.7
2	Seychelles	79.8
3	Cape Verde	77.4
4	Botswana	72.7
5	Tunisia	71.5
6	Ghana	70.6
7	Algeria	70.2
8	Namibia	69.2
9	South Africa	68.4
10	Sao Tome and Principe	68.2
11	Gabon	66.5
12	Morocco	65.9
13	Benin	64.0
14	Malawi	63.3
15	Gambia	62.8
16	Senegal	62.7
17	Madagascar	62.4
18	Egypt	61.9
19	Burkina Faso	61.6
20	Tanzania	61.5
21	Libya	61.2
22	Mauritania	61.0
23	Lesotho	60.0
24	Zambia	59.6
25	Comoros	58.7
26	Rwanda	58.6
27	Kenya	58.2
28	Uganda	57.8
29	Niger	57.8
30	Mali	57.2
31	Mozambique	56.8
32	Djibouti	56.7
33	Cameroon	54.4
34	Togo	52.7
35	Sierra Leone	51.6
36	Guinea-Bissau	51.5
37	Ethiopia	51.1
38	Nigeria	50.3
39	Burundi	50.0
40	Liberia	50.0
41	Equatorial Guinea	49.5
42	Swaziland	49.4
43	Congo (Brazzaville)	48.7
44	Guinea	47.4
45	Zimbabwe	47.3
46	Angola	45.9
47	Eritrea	44.4
48	Central African Republic	43.0
49	Cote d'Ivoire	42.7
50	Congo, Democratic Republic	37.3
51	Chad	36.7
52	Sudan	34.8
53	Somalia	16.3

2009 INDEX OF AFRICAN GOVERNANCE COUNTRY SCORES (2000-2007)

	2000	2002	2005	2006	2007
Angola	35.7	37.1	47.0	47.1	45.9
Benin	64.6	63.1	61.4	62.5	64.0
Botswana	72.3	72.4	71.9	72.3	72.7
Burkina Faso	51.9	54.5	57.8	60.4	61.6
Burundi	35.7	36.7	42.5	50.1	50.0
Cameroon	48.9	48.8	53.7	54.3	54.4
Cape Verde	71.6	74.8	77.2	77.2	77.4
Central African Republic	45.6	45.3	43.2	41.8	43.0
Chad	39.6	40.9	40.0	34.6	36.7
Comoros	52.2	52.7	57.8	60.5	58.7
Congo (Brazzaville)	46.1	47.4	48.9	49.6	48.7
Congo, Democratic Rep.	27.5	28.2	30.9	30.4	37.3
Cote d'Ivoire	44.7	42.3	41.7	41.7	42.7
Djibouti	55.6	55.4	54.4	56.7	56.7
Equatorial Guinea	47.1	49.3	48.5	47.6	49.5
Eritrea	39.1	44.9	45.5	44.7	44.4
Ethiopia	44.5	50.9	52.7	51.4	51.1
Gabon	65.4	64.6	63.4	63.4	66.5
Gambia	53.7	59.2	58.9	57.7	62.8
Ghana	63.7	66.8	68.8	69.6	70.6
Guinea	52.1	51.0	49.0	48.0	47.4
Guinea-Bissau	54.3	51.8	48.0	52.7	51.5
Kenya	57.7	58.2	59.8	59.2	58.2
Lesotho	57.8	59.2	58.9	60.7	60.0
Liberia	40.7	38.5	39.1	49.1	50.0
Madagascar	58.7	55.8	59.4	62.1	62.4
Malawi	61.9	62.3	62.9	62.8	63.3
Mali	50.7	54.2	57.2	57.8	57.2
Mauritania	52.3	57.5	57.4	53.2	61.0
Mauritius	81.3	81.1	84.6	83.4	85.7
Mozambique	52.0	54.9	56.3	57.2	56.8
Namibia	71.1	70.6	68.4	68.6	69.2
Niger	54.0	54.8	58.5	58.3	57.8
Nigeria	45.7	46.2	48.1	49.6	50.3
Rwanda	47.1	49.1	57.4	58.7	58.6
Sao Tome and Principe	61.5	65.8	66.5	66.3	68.2
Senegal	62.0	64.9	66.0	66.0	62.7
Seychelles	77.6	77.8	78.4	80.1	79.8
Sierra Leone	41.6	53.1	51.1	51.7	51.6
Somalia	21.9	20.9	22.0	18.4	16.3
South Africa	68.5	68.7	68.8	69.4	68.4
Sudan	34.5	35.1	33.8	33.4	34.8
Swaziland	47.7	46.8	47.5	50.1	49.4
Tanzania	53.6	60.4	59.5	61.0	61.5
Togo	50.1	51.0	50.4	51.9	52.7
Uganda	49.4	53.2	53.4	57.9	57.8
Zambia	53.9	59.2	58.8	59.4	59.6
Zimbabwe	49.3	50.6	49.5	49.5	47.3
Algeria	61.9	62.1	68.9	67.1	70.2
Egypt	62.4	61.8	62.0	61.7	61.9
Libya	56.0	56.0	60.4	60.9	61.2
Morocco	62.3	61.3	63.5	66.8	65.9
Tunisia	69.8	70.1	70.9	71.2	71.5

2009 INDEX OF AFRICAN GOVERNANCE COUNTRY RANKS (2000-2007)

	2000	2002	2005	2006	2007	
Angola	50	49	44	46	46	
Benin	9	12	16	15	13	
Botswana	3	4	4	4	4	
Burkina Faso	31	28	25	22	19	
Burundi	49	50	47	38	39	
Cameroon	36	40	32	32	33	
Cape Verde	4	3	3	3	3	
Central African Republic	42	44	46	48	48	
Chad	47	47	49	50	51	
Comoros	28	32	26	21	25	
Congo (Brazzaville)	40	41	39	41	43	
Congo. Democratic Rep.	52	52	52	52	50	
Cote d'Ivoire	43	46	48	49	49	
Diibouti	21	25	31	31	32	
Equatorial Guinea	38	38	40	45	41	
Eritrea	48	45	45	47	47	
Ethiopia	44	36	34	37	37	
Gabon	8	11	13	13	11	
Gambia	25	18	22	29	15	
Ghana	10	8	7	6	6	
Guinea	29	35	38	44	44	
Guinea-Bissau	22	33	42	34	36	
Kenva	19	21	18	24	27	
Lesotho	18	20	21	20	23	
Liborio	46	48	50	43	40	
Madagagagar	40		20	16	17	
Malagascar	14	13	14	14	14	
Mali	22	20	20	29	20	
Mauritania	32	23	23	20	30	
Mouritius	21	1	27	35	1	
Magambigua	30	26	30	30	21	
Mozambique	50	20	30	30	31	
Namibia	3	3	3	0	0	
Niger_	23	21	24	20	29	
Ruenda	41	45	41	40	36	
Sao Tome and Principe	16	39	28	25	28	
Sao Tome and Emerge	12	10	11	12	16	
Sellegal	13	10	11	12	10	
Sigma Lagna	45	2	2	2	2	
Sierra Leolie	45	51	53	50	50	
Somalia			55		0	
South Africa	7	7 E4	6	51	9	
Sudan	37	51	51	30	52	
Swaziland	37	42	43	39	42	
Talizallia	20	17	19	16	20	
10g0	33	34	30	35	29	
\cup ganda	34	30	33	21	28	
	24	19	23	23	24	
Zimbabwe	35	3/	3/	42	45	
Aigena	15	14	0	9	1	
Egypt	11	15	15	17	18	
Libya	20	23	17	19	21	
Morocco	12	10	12	IU F	5	
i unista	0	0	5	5	5	

2009 INDEX CATEGORY SCORES AND TOTALS (BASED ON 2007 DATA; 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 2007
Angola	83.9	35.3	24.5	44.1	41.7	45.9
Benin	94.4	54.7	83.7	34.1	52.9	64.0
Botswana	77.8	84.8	84.3	50.5	66.0	72.7
Burkina Faso	94.4	62.7	72.3	33.2	45.6	61.6
Burundi	66.5	44.4	60.9	31.4	47.1	50.0
Cameroon	83.2	44.1	53.7	36.3	54.9	54.4
Cape Verde	100.0	88.5	84.8	43.2	70.6	77.4
Central African Republic	50.1	40.8	61.2	30.9	32.2	43.0
Chad	55.2	37.7	33.4	25.7	31.5	36.7
Comoros	94.4	51.2	66.5	31.0	50.5	58.7
Congo (Brazzaville)	71.4	42.8	42.5	33.0	54.1	48.7
Congo, Democratic Rep.	43.3	23.2	54.2	28.0	38.0	37.3
Cote d'Ivoire	69.9	37.5	25.3	32.9	47.9	42.7
Diibouti	94.4	45.0	48.9	37.2	57.9	56.7
Equatorial Guinea	94.4	41.9	20.6	53.0	37.6	49.5
Eritrea	89.4	46.0	10.3	29.6	46.6	44.4
Ethiopia	80.3	49.2	38.1	36.2	51.8	51.1
Gabon	100.0	53.9	56.0	50.8	71.7	66.5
Gambia	94.3	52.6	68.4	39.1	59.5	62.8
Ghana	94.4	75.1	80.5	36.7	66.3	70.6
Guinea	88.2	49.7	23.7	31.6	43.7	47.4
Guinea-Bissau	88.8	32.1	73.2	21.1	42.3	51.5
Kenya	76.2	52.9	59.3	38.6	63.7	58.2
Lesotho	66.7	67.1	74.2	37.2	54.9	60.0
Liberia	63.9	26.9	87.2	32.5	39.3	50.0
Madagascar	94.4	59.4	75.0	34.7	48.5	62.4
Malawi	94.4	63.4	70.9	34.8	53.1	63.3
Mali	79.4	56.6	74.1	32.8	43.3	57.2
Mauritania	76.6	62.5	69.5	36.2	40.0	61.0
Mauritius	100.0	84.6	95.5	59.8	88.8	85.7
Mozambique	94.4	49.5	64.8	36.0	38.4	56.8
Namibia	00.0	77.0	76.2	42.1	50. 4	60.2
Indilii0id	00.4	52.1	91.4	45.1	22.4	57.9
Nigeria	50.4 66.4	53.1	42.2	30.0	50.4	50.2
Rwanda	08.3	52.5	43.3	36.9	50.6	50.5
Sao Tome and Principe	96.5	40.4	66.4	35.1	42.9	50.6
Suo Tome una Emerge	04.1	46.2	91.5	43.0	59.5	60.2
Sevehelles	94.1	66.5	53.6	35.0	53.7	62.7 70.0
Sierra Leone	88.8	74.0	74.8	73.8	87.8	79.8
Somalia	77.1	35.3	69.2	34.7	41.7	51.6
South A frica	33.3	5.0	4.9	5.2	34.4	10.5
South Antea Sudan	61.1	77.0	82.0	56.1	65.5	68.4
Sucal	35.5	29.0	11.9	38.2	59.4	34.8
Swazinanu	72.2	59.6	23.2	40.0	52.1	49.4
Tanzania	88.9	58.9	66.9	36.0	56.9	61.5
logo	82.9	51.2	45.9	32.8	50.6	52.7
\cup ganda	81.3	54.4	63.1	35.8	54.5	57.8
Zambia	83.3	60.9	65.8	39.7	48.4	59.6
Zimbabwe	78.9	43.1	40.8	23.5	50.1	47.3
Algeria	93.7	62.1	60.7	48.9	85.7	70.2
Egypt	100.0	56.5	18.9	47.2	86.8	61.9
Libya	100.0	41.4	15.6	60.7	88.5	61.2
Morocco	100.0	61.7	44.3	46.8	76.7	65.9
Tunisia	100.0	70.5	45.3	52.5	89.0	71.5

2009 INDEX CATEGORY SCORES AND TOTALS (BASED ON 2007 DATA; 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 2007
Mauritius	100.0	84.6	95.5	59.8	88.8	85.7
Seychelles	88.8	74.0	74.8	73.8	87.8	79.8
Cape Verde	100.0	88.5	84.8	43.2	70.6	77.4
Botswana	77.8	84.8	84.3	50.5	66.0	72.7
Tunisia	100.0	70.5	45.3	52.5	89.0	71.5
Ghana	94.4	75.1	80.5	36.7	66.3	70.6
Algeria	93.7	62.1	60.7	48.9	85.7	70.2
Namibia	88.8	77.2	76.3	43.1	60.6	69.2
South Africa	61.1	77.0	82.0	56.1	65.5	68.4
Sao Tome and Principe	100.0	46.2	91.5	43.8	59.5	68.2
Gabon	100.0	53.9	56.0	50.8	71.7	66.5
Morocco	100.0	61.7	44.3	46.8	76.7	65.9
Benin	94.4	54.7	83.7	34.1	52.9	64.0
Malawi	94.4	63.4	70.9	34.8	53.1	63.3
Gambia	94.3	52.6	68.4	39.1	59.5	62.8
Senegal	94.1	66.3	63.8	35.8	53.7	62.7
Madagascar	94.4	59.4	75.0	34.7	48.5	62.4
Egypt	100.0	56.5	18.9	47.2	86.8	61.9
Burkina Faso	94.4	62.7	72.3	33.2	45.6	61.6
Tanzania	88.9	58.9	66.9	36.0	56.9	61.5
Libya	100.0	41.4	15.6	60.7	88.5	61.2
Mauritania	76.6	62.5	69.5	36.2	60.0	61.0
Lesotho	66.7	67.1	74.2	37.2	54.9	60.0
Zambia	83.3	60.9	65.8	39.7	48.4	59.6
Comoros	94.4	51.2	66.5	31.0	50.5	58.7
Rwanda	98.3	48.4	68.4	35.1	42.9	58.6
Kenva	76.2	52.9	59.3	38.6	63.7	58.2
Uganda	81.3	54.4	63.1	35.8	54.5	57.8
Niger	90.4	53.1	81.4	30.6	33.4	57.8
Mali	70.4	55.1	74.1	22.9	42.2	57.0
Mozambique	04.4	40.5	64.9	32.0	45.5	57.2
Diibouti	94.4	49.5	48.0	30.9	58.4	50.0
Cameroon	94.4	45.0	40.9	37.2	57.9	56.7
Taga	83.2	44.1	55.7	30.3	54.9	54.4
Sierra Leone	02.9	51.2	45.9	32.0	50.6	52.7
Cuince Dissou	77.1	35.3	79.2	34.7	41.7	51.0
Guillea-Bissau Ethionia	88.8	32.1	73.2	21.1	42.3	51.5
	80.3	49.2	38.1	36.2	51.8	51.1
Nigeria	66.4	52.3	43.3	38.9	50.6	50.3
Burundi	66.5	44.4	60.9	31.4	47.1	50.0
Liberia	63.9	26.9	87.2	32.5	39.3	50.0
Equatorial Guinea	94.4	41.9	20.6	53.0	37.6	49.5
Swaziland	72.2	59.6	23.2	40.0	52.1	49.4
Congo (Brazzaville)	71.4	42.8	42.5	33.0	54.1	48.7
Guinea	88.2	49.7	23.7	31.6	43.7	47.4
Zimbabwe	78.9	43.1	40.8	23.5	50.1	47.3
Angola	83.9	35.3	24.5	44.1	41.7	45.9
Eritrea	89.4	46.0	10.3	29.6	46.6	44.4
Central African Republic	50.1	40.8	61.2	30.9	32.2	43.0
Cote d'Ivoire	69.9	37.5	25.3	32.9	47.9	42.7
Congo, Democratic Republic	43.3	23.2	54.2	28.0	38.0	37.3
Chad	55.2	37.7	33.4	25.7	31.5	36.7
Sudan	35.5	29.0	11.9	38.2	59.4	34.8
Somalia	33.3	5.6	4.9	3.2	34.4	16.3

2009 INDEX "TRADITIONAL"* GOVERNANCE OVERALL SCORES (SORTED BY 2007 SCORE)

	2000	2002	2005	2006	2007
Mauritius	85.8	84.1	89.3	86.1	90.0
Cape Verde	74.9	82.4	88.1	85.6	86.7
Botswana	86.4	86.8	84.7	84.9	84.6
South Africa	83.7	82.9	81.5	82.5	79.5
Ghana	67.3	74.3	75.6	76.8	77.8
Namibia	85.3	82.6	75.8	76.3	76.8
Seychelles	75.5	75.5	74.2	76.7	74.4
Lesotho	69.6	72.3	70.1	71.9	70.6
Benin	75.2	71.4	64.2	66.6	69.2
Sao Tome and Principe	65.3	68.4	67.6	67.3	68.8
Burkina Faso	51.0	53.0	59.2	65.0	67.5
Niger	60.6	60.9	67.1	66.1	67.2
Madagascar	63.1	60.1	61.8	66.5	67.2
Malawi	70.5	68.9	67.5	66.1	67.1
Mauritania	49.8	61.2	58.7	45.2	66.0
Mali	52.5	59.8	64.4	64.7	65.3
Senegal	71.3	76.2	74.1	74.4	65.0
Zambia	52.6	70.2 66.9	74.1	62.1	62.4
Tanzania	48.0	64.1	60.5	63.0	62.0
Algoria	48.0	64.1	50.5	65.0 55.5	61.4
Algena	49.7	47.2	59.5	55.5	01.4
Gambia	40.3	58.4	53.3	49.3	60.5
Comoros	43.7	43.7	54.8	62.6	58.9
Uganda	42.1	53.3	51.0	59.0	58.8
Rwanda	36.0	37.1	55.9	58.6	58.4
I ullista Mozambiguo	61.3	60.9	59.2	58.2	57.9
Wiozanibique	54.2	58.0	59.0	60.0	57.2
Liberia	39.5	39.8	33.8	57.0	57.0
Kenya	57.9	59.9	62.0	59.2	56.1
Gabon	58.1	55.3	49.9	49.0	55.0
Morocco	52.3	47.8	49.1	54.7	53.0
Guinea-Bissau	61.1	57.5	44.9	56.5	52.7
Burundi	33.7	34.4	38.6	55.0	52.6
Sierra Leone	45.3	58.4	52.8	53.6	52.2
Central African Republic	57.3	59.1	52.6	50.6	51.0
Cameroon	38.5	38.1	48.7	49.4	48.9
Togo	45.6	44.7	42.9	46.1	48.6
Nigeria	41.4	43.8	44.4	46.8	47.8
Djibouti	49.5	47.7	42.5	47.1	46.9
Ethiopia	33.8	48.5	47.0	44.8	43.7
Congo (Brazzaville)	38.1	45.2	43.7	43.4	42.6
Zimbabwe	43.8	45.7	43.7	43.5	42.0
Swaziland	37.8	37.5	37.1	43.1	41.4
Congo, Democratic Republic	22.3	26.2	20.0	20.0	38.7
Egypt	44.0	42.1	40.5	38.6	37.7
Guinea	55.6	49.1	41.2	38.7	36.7
Chad	45.9	46.7	43.2	34.7	35.5
Cote d'Ivoire	37.2	37.8	28.7	29.8	31.4
Equatorial Guinea	32.7	34.5	31.1	31.9	31.3
Angola	23.6	24.2	33.6	33.3	29.9
Libya	20.8	20.0	27.7	28.5	28.5
Eritrea	29.1	34.5	30.6	29.8	28.1
Sudan	26.1	28.7	23.8	21.5	20.4
Somalia	14.0	14.0	13.2	7.7	5.3

III

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 national, provincial, municipal, and village polities to provide. We have rigorously attempted to do such measurement in this Index of African Governance. Our approach builds upon the explanatory papers that were published prior to the first Ibrahim Index of African Governance in 2007.¹ In addition to the five categories, thirteen sub-categories, and fifty-seven sub-sub-categories (or "indicators") that we are using to measure performance and governance in the 2009 Index, more variables could doubtless provide further calibrations and refinements. But we think that the 2009 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.² There are a variety of national, regional, and international attitudinal surveys, some extremely ambitious. But what makes this 2009 Index of African Governance unique (more so than the 2007 and 2008 Ibrahim Indexes) is its attempt to be comprehensive across a broad range of data for all fifty-three African countries, over multiple years.

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 *components* of good governance (here corruption, human development, and respect for political rights and civil liberties, respectively). Among other broader projects on governance in Africa, for instance, the United Nations Economic Commission for Africa's *African Governance Report* (AGR) covered twenty-seven African countries in its first report in 2005 and thirty-five countries in its second report, published in 2009. The latest round of Afrobarometer surveys, conducted during 2008 and released in May 2009, covered nineteen African countries. Twenty-nine African countries have acceded to the African Peer Review Mechanism (APRM), an important self-monitoring governance endeavor.³ However, country review reports are currently available for only seven countries.⁴

¹ In particular, see Robert I. Rotberg, "Improving Governance in the World: Creating a Measuring and Ranking System," in Rotberg and Deborah West, *The Good Governance Problem: Doing Something About It*, WPF Report 29 (Cambridge, MA, 2004).

² The UNDP Oslo Governance Centre's "Governance Assessment Portal" will provide a summary of many initiatives. See www.gaportal. org/.

³ As of June 2009. Cape Verde "...formally accede[d] to the APRM at the 11th Summit as the 29th member of the APRM...." See "Communique Issued at the End of the Eleventh Summit of Heads of State and Government Participating in the African Peer Review Mechanism [APR Forum], 30 June 2009, Sirte, Libya," available at http://aprm.krazyboyz.co.za/index.php?option=com_aprm_ about&Itemid=30&page=aprm-forum&nid=2 (last accessed 4 September 2009).

⁴ See www.aprm-international.org/.

National Sources

The availability of good data drive each of these efforts, not least our own. In preparing the first Ibrahim Index of African Governance in 2007, 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 our indicators, 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) and to determine whether some figures are collected in-country, but just not made available internationally, we have been attempting since 2007 to collect good numbers for approximately twenty indicators from national sources in each of sub-Saharan Africa's forty-eight countries. (We have not had research affiliates in the North African countries because we added assessment of them only in this year. In addition, international sources generally have more complete information for North African countries than for sub-Saharan countries, so the need for in-country affiliates has been less pressing. Similarly, we have not focused on finding a research affiliate in Mauritius, a country for which international statistics are relatively complete, as is the information available through the reports and website of the Central Statistics Office in Port Louis.)

In-country research affiliates, directed by the Index staff at Harvard, have sought to gather information from national statistical offices and from ministries of justice, health, education, and so on. This massive effort has been mostly successful; in this year's Index we provide measures that are fuller and stronger than in 2007 and 2008 because of the continued deployment of locally derived numbers. Nevertheless, missing numbers still remain a major problem for a few key indicators and countries. Each of those gaps is mentioned in the notes to the individual indicators.

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 research affiliates ably collected. Maternal mortality figures provide a good example of why. As statistics on maternal mortality published in UNICEF's *The State of the World's Children 2009* report illustrate, there are often major differences between country-reported and "adjusted" (and internationally-comparable) figures on the maternal mortality ratio.⁵ Such differences may be due to the varying methods that countries use to measure maternal mortality, as well as, as UNICEF notes, to "well-documented problems of misclassification and underreporting."⁶ In Guinea-Bissau, for instance, the nationally reported figure is 410 deaths per 100,000 live births and the adjusted figure is 1,100.

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—itself an indicator 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 remain attentive to them as we continue to develop more sophisticated methods of data collection, both internationally and locally, through our research affiliates on the ground in Africa.

The use of local data for particular indicators is discussed in the relevant descriptive notes. These notes detail how and when we decide to use local numbers. In several cases when the local numbers are not used directly in the Index, we summarize the data collected as a point of comparison and so that other researchers may use these figures.

The Latest Numbers

In each edition of the Index, assessment is based on the latest numbers available. Given the type of data that we use (hard numbers, focused on outcomes), the latest numbers available for most indicators for most countries are for two

⁵ See 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).

⁶ UNICEF, The State of the World's Children 2009: Maternal and Newborn Health (New York, 2008), 149.

years prior. Thus, the 2007 Ibrahim Index was up-to-date through 2005, the 2008 Ibrahim Index through 2006, and the 2009 Index through 2007. Other projects that rely on similar types of figures show a similar time lag (see, for instance, the well-known Human Development Index).

In accordance with standard research practices, the numbers used in our Index are fully updated in each year—both for the latest year *and* retrospectively for previous years. Thus the 2009 edition of the Index of African Governance reflects the best available numbers for all years, as of approximately June/July 2009.⁷ Although not all indices submit to this rigorous standard, we do so in order to take advantage of all the advances in research made during each year, 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 of simple errors. Standard international sources on even the most well-used indicators, such as GDP and inflation, are regularly revised. In several cases, new sources have been published that measure specific indicators more accurately than previously available sources.

Retrospective revision—compelled by international data reassessments and the importance of incorporating newly available information—means that some numbers used in the 2009 Index of African Governance are different from those used in our 2007 and 2008 Ibrahim Indexes. In other words, a country's rank in the 2008 Ibrahim 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 2009, that earlier assessment has been adjusted. Such revisions do imply some changes in previous years' overall scores and rankings. Comparisons year to year should thus be made using only the data published in each year's Index edition, as is standard practice.

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 indicators 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.

There is no single standard method of calculating an index.⁸ 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 for this Index to emphasize relative simplicity as compared to other methods (i.e., the ease with which the results could be understood by non-statisticians).⁹ The makers of the Index also sought to ensure that the real data themselves—rather than targets or reference points set arbitrarily—governed the scaling of the data.¹⁰ 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 indicators. Additionally, we sought a method that would not discard information, when available, about variation

⁷ Exact dates on which our sources were last accessed are noted in the descriptions for each indicator.

⁸ 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 Guider," OECD Statistics Working Paper, (Paris, 2005).

⁹ This was one reason that z-scores were not used.

¹⁰ This was one reason that "distance from a reference (or target)" methods were not used.

among countries. For instance, although some of the indicators 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 indicators), we refrain from normalizing the indicator data by grouping values into three (or five, or ten) categories.¹¹

Prior to the publication of the first Ibrahim Index in 2007, the Index authors examined several methods. For a description of the pros and cons of these methods, see the "Measurement, Methods, and More" essay in our 2008 report. The Index method employed since the 2007 Ibrahim Index is as follows:

For each indicator, the raw data are re-scaled such that the minimum value across all years of the Index (2000, 2002, 2005, 2006, and 2007) receives a score of "0" and the maximum value across all years of the Index, a score of "100." For each indicator in each country in each year, the score is calculated as follows:

$$SSC_{c}^{t} = 100 \times \left(\frac{x_{c}^{t} - MIN(X)}{MAX(X) - MIN(X)}\right), \text{ where } x_{c}^{t} \text{ is the raw value for that indicator for country } c \text{ in year } t \text{ and } X$$

describes all raw values across all countries for that indicator across all years 2000, 2002, 2005, 2006, and 2007.

(Note that because high values may indicate good performance for some indicators 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 indicators can be found in the descriptive notes to each and in the introductory notes to the various categories.)

The key benefit of this method is that scores for each country can be compared over time for 2000, 2002, 2005, 2006, and 2007, as well as relative to other countries within the same year. In addition, the real data for each indicator determine the minimum and maximum values. Doing so is useful for indicators 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 indicators for which the possible range of values is more predictable, such as the literacy rate. For instance, for the literacy rate indicator, 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 indicator (17.1 to 91.8 percent), arbitrarily setting the scale at 0 to 100 percent will mean that country values for this indicator will be lower than for other indicators 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.

The key drawback to this method is that the scores of the Index of African Governance must be adjusted in each year—both for the latest year and previous years—when there are changes in the real minimum and maximum values in various indicators. However, as noted above, the underlying data are also adjusted annually; thus, some such changes are inevitable.

Weights and Weighting

A second key decision in the calculation of the Index involved weighting. Within the five main categories of the Index of African Governance (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 indicators within each sub-category. Our basic rule is equal weighting, which reflects the equal importance of each category and sub-category in the Index's conceptualization of governance: In other words, within each category, the scores of each sub-category are

¹¹ This was one reason that methods employing rankings only or categorical scales were not used.
Measurement, Methods, and More

weighted equally and the sub-category scores are averaged to arrive at the overall score. Within each sub-category, each sub-sub-category (indicator) is weighted equally and the indicator scores are averaged to create the sub-category score. (See "The Meaning of Governance" for summary tables of the Index categories, sub-categories, and indicators.)

There are two exceptions to this rule: First, in the category of 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 the data and the extreme problem of missing data for crime (explained in the introduction to Safety and Security), we decided that it was more fair and more accurate to weight National Security (where the data were comparatively complete) twice as much as Public Safety, thus weighting the first two-thirds and the second one-third.

Second, in the sub-category of Respect for Civil and Political Rights (in the category of Participation and Human Rights), we include an indicator of women's rights that is based on the sum of three other indicators ("sub-"indicators) for women's economic rights, women's political rights, and women's social rights (each drawn from the Cingranelli-Richards Human Rights Dataset, as explained in the descriptive note on women's rights). Given the importance of these three sub-indicators, we list the results for each separately in the Index, just as we do for the other indicators.

In deciding to weight categories equally, we considered several alternatives. 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. The Index's Executive 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.

In the final analysis, we chose to weight all categories equally—a decision based on our underlying conceptualization of governance. In order to assess the effect of this decision on our results, we also ran the numbers for the 2007 Ibrahim Index in several different ways, over-weighting Safety and Security, Sustainable Economic Opportunity, and Human Development separately. This analysis suggested that our chosen method was generally robust to these different weighting schemes. Although there were some variations among middle-ranking countries, the best and worst performers were similar across these 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 one category over any other.

As our work on the Index has matured since 2007, we have completed additional analyses of the Index data to test the robustness of our results for different conceptualizations of governance and weighting schemes. As part of these analyses, we have explored how countries might rank against each other if governance were measured in a narrower, more traditional way, such as to include only our categories of the "Rule of Law, Transparency, and Corruption" and "Participation and Human Rights." (In other words, what happens if these two categories are weighted 50 percent each, and the other three categories are given no weight at all?) Rankings based on this approach are given on page 23.

Missing Values

The regular collection of reliable statistics, such as those used in our Index, is expensive and labor-intensive. Not surprisingly, missing data is a major problem for all analysts of African governance. A final, related decision for the Index authors thus concerned how to represent missing values. Our solutions here have again been governed by the project's commitment to providing ratings that are transparent and accessible to citizens, civil society, and governments, as well as to other scholars—statisticians and non-statisticians alike. Thus, although we are aware of other more statistically complex methods of imputation, we have chosen the simplest methods where possible.

The Index authors have continued to evaluate the effects of these methodological choices on the overall rankings each year. This year, we have had the opportunity to do so in light of the findings of a sensitivity analysis of the 2008 Ibrahim Index published by Saisana, Annoni, and Nardo (2009; see excerpts in this report). The report concludes that the method adopted in our 2008 Ibrahim Index is robust overall. The authors have made one major change to the Index this year as a result of this analysis: we have calculated the Index without one of its original indicators, the Environmental Performance Index. (Alternate results are also presented with this indicator included.) Although this indicator is important, we have chosen to not include it in the Index due to the findings of the sensitivity analysis and our continuing concerns over missing data problems with this indicator. Saisana, Annoni, and Nardo also make several other recommendations for missing data, including the use of the "hot deck" method for imputing missing values. The authors are still analyzing the implications of such changes and thus the findings of this sensitivity analysis will be further incorporated into the next, 2010, Index of African Governance.

There are three types of missing data in the Index. First, for some indicators, such as the homicide rate, values are simply unavailable for almost all countries for all years. In these cases, we have either found "second best" measures for essential indicators, or have not included these indicators in our Index for the time being. In the case of crime, for instance, we include a measure of the "level of crime," rather than actual crime rates per 100,000 people. On the other hand, we have chosen not to include an indicator on tertiary education rates, in addition to those already included on primary and secondary schooling. Details about specific indicators are discussed in the descriptive notes for the Index categories and indicators.

Second, missing data are a particular problem for some countries. The extreme example in the Index is Somalia, particularly in the categories of Sustainable Economic Opportunity and Human Development. We have chosen to keep Somalia in the Index given the project's commitment to assessing all African countries. In addition, we find its ranking at the bottom to be accurate. However, we caution readers about drawing conclusions about governance performance in Somalia based on changes in its Index scores, which are based on highly incomplete figures. On the other hand, the problem of missing data was so extreme for two countries, Western Sahara and Somaliland, that we chose not to include them in the 2009 Index. Although both Western Sahara and Somaliland act as states and Western Sahara is a member of the African Union, both lack full international recognition. Thus, many standard international statistics are simply not available, and we are unable to rate them in a way that is comparable to other African countries.

Third, for some indicators, values are available for some or selected years, but not for every year for every country. For instance, it is common for figures on poverty rates to be collected only every ten years. In addition, some projects only began collecting data at some point after 2000. The World Bank's *Doing Business* surveys, for instance, were first published in 2004. Prior to 2004, there is no source for some of the indicators collected by the *Doing Business* project. *Doing Business* also only began collecting statistics on some countries (such as Liberia) after 2004. For this type of missing data, we have either used the closest year's figure as an estimate (the year prior, if available), or we have calculated the Index without the figure. For instance, we use an indicator from the *Doing Business* surveys on the number of days necessary to start a business. Data are not available for the Index years 2000 and 2002, and we treat the value corresponding to 2003 as an estimate for these years. Given that we do not want to exclude this indicator for the years 2000 and 2002, that no earlier values are available, and that available values seem relatively stable year to year, we think our approach is reasonable.

In several instances (particularly in the category of Human Development), however, even such rough estimates are 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, thus calculating the relevant sub-category scores by equally weighting the scores from the available indicators (i.e. mean substitution). For instance, the poverty sub-category is calculated from three indicators: the rate of poverty using the national poverty line, the rate of poverty using the international (\$1.25 per person per day, PPP) line, and inequality measured in terms of the Gini index. Data are available for São Tomé and Príncipe on poverty at the national line and on inequality, but not on poverty at the international line. São Tomé and Príncipe's score is thus calculated based on an average of the scores for the two available

indicators. Effectively, this approach is the same as estimating missing values to be the average of available indicator scores in a respective sub-category. The resulting sub-category score would be the same if we were to estimate São Tomé and Príncipe's score on poverty at the international line as equal to the average of its scores on other indicators in this sub-category. We have carefully noted throughout the Index each instance of missing data and any estimates used.

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 sub-category relative to other countries. However, if there is significant variation in a country's performance across indicators in some sub-categories, this method will produce scores that are either lower or higher than reality, depending on the case. In the absence of better information about all of the instances of missing data, however, the method employed reflects our best overall assessment at this time.

Statistical Quality

A final challenge related to missing data is statistical quality. Often, 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?

In addition, country experts will surely have questions about many of the specific numbers used in this Index. Are literacy rates in Zimbabwe really that high? Do so many Malawians really have access to potable water? Is the ratio of students to teachers in the Democratic Republic of the Congo really so comparatively low? The authors of the Index continue to wrestle with such challenges, inviting comments from our readers and searching for new and better data sources. However, in large part, the quality of available statistics is a problem far beyond the capacity of the Index project: we cannot, and should not, recreate the work of national statistical agencies and international organizations charged with the collection and dissemination of statistics on population demographics, health, education, infrastructure, and so on.

Sub-regional Performance

A methodological challenge that we will seek to address more fully in future years has to do with variation in governmental performance within countries. In some cases, such variation can be extreme. For example, the difference in governance and performance between Somalia (a collapsed state with older, if out-of-date, borders) and Somaliland (a largely unrecognized but functioning state confined to the territory of pre-1960 British Somaliland) cannot be parsed fully in this Index. Few international sources present data that recognize this meaningful distinction, and hence, this Index cannot evaluate Somaliland in a manner analogous to other, internationally recognized countries. This year, however, the Index team has collected significant information on Somaliland through research in Hargeisa and is working to provide an estimate of Somaliland's performance, which will be published on our website.

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. Such variation is similarly masked in most projects that rely on national-level data. The Index team thus encourages sub-national studies employing the Index method. While the Index of African Governance does not currently include sub-national evaluations, it continues to work with local scholars and organizations to develop such studies, country by country.

Michaela Saisana, Paola Annoni, and Michela Nardo's report, A *Robust Model to Measure Governance in African Countries* (Ispra, 2009), presents the results of a detailed sensitivity and multivariate analysis of the Index, using data from the 2008 edition. The "Executive Summary" and "Conclusion" to the report are reprinted here with permission from the authors.

> Please visit http://belfercenter.ksg.harvard.edu for a link to the full publication

A ROBUST MODEL TO MEASURE GOVERNANCE IN AFRICAN COUNTRIES

Michaela Saisana, Paola Annoni and Michela Nardo

Executive Summary

Levels of performance in government do matter in determining the quality of civil society. As the UNDP (United Nations Development Program) Administrator Kemal Derviş recently stated, "Institutions, rules and political processes play a major role in determining whether economies grow, whether children go to school, and whether development goes forward....."

National governance assessments are generally carried out in order to investigate and strengthen the relationship between governance and the type of any intervention and assistance given. In African countries, the need to evaluate the quality of governance is even more pronounced. For example, the African Governance Forum (www.undp.org/ africa/agf/) is a governance programme of the UNDP in Africa which has been held regularly since 1997. It provides a platform for African leaders and other major players to come together for policy dialogue, mutual learning and exchange of experience on how to meet governance challenges on the continent.

The Ibrahim Index of African Governance developed by the Harvard Kennedy School (Rotberg and Gisselquist, 2008) shows how governance can be measured. The Index assesses governance issues over time (2000, 2002, 2005, 2006) for 48 African countries south of the Sahara, according to a five-pillar conceptual structure:

- (a) Safety and Security,
- (b) Rule of Law, Transparency, and Corruption,
- (c) Participation and Human Rights,
- (d) Sustainable Economic Opportunity, and
- (e) Human Development.

Together these five categories of political goods are considered to encapsulate the performance of any government. The five major pillars are described by fourteen sub-pillars composed in total of fifty-seven indicators (in a mixture of qualitative and quantitative measures). The main approach for the setting-up of the final Index of African Governance is quite straightforward: a simple average at all levels of aggregation (sub-pillar, pillar, overall Index).

This report aims to validate and critically assess the methodological approach to the 2006 Index of African Governance, by addressing two key questions:

- 1. Is the Index of African Governance internally sound and consistent, from a statistical and conceptual point of view?
- 2. What scenarios could have been used to build the Index and how do the results of these scenarios compare to the original results?

Regarding the first objective, the analysis of statistical quality and robustness of the Index is carried out at two different levels. At the first level, each of the five pillars is analysed by applying statistical techniques—adequate to both qualitative and quantitative data—to the original indicators included in the Index. The aim is to assess from a purely statistical perspective the internal validity and consistency of each pillar. At the second level, validity and consistency are assessed by applying statistical techniques at the sub-pillar and pillar level.

In line with the second objective, an *ex post* analysis is performed to evaluate the robustness of the 2006 Index ranking against alternative scenarios in which different sources of uncertainty are activated simultaneously. In these more sophisticated scenarios we deviate from the classic approach of building the Index through a simple weighted summation

of indicators normalised using a Min-Max scaling. These scenarios differ from one another in the inclusion/exclusion of a sub-pillar, the weighting scheme and the aggregation rule. Such a multi-modelling approach and the presentation of the results under uncertainty, rather than as single country ranks, helps to avert the criticism frequently raised against composite measures and rankings, namely that they are generally presented as if they had been calculated under conditions of certainty, while this is in fact rarely the case.

The overall assessment of the 2006 Index by means of multivariate analysis and uncertainty and sensitivity analyses reveals no particular shortcomings in the conceptual structure. In brief, the analyses demonstrate that the 2006 Index of African Governance:

- is internally consistent, from a conceptual and statistical point of view,
- is not double-counting indicators due to correlation among them,
- has a well-balanced structure (not dominated by a single sub-pillar or pillar),
- is not strongly affected by compensability (at the sub-pillar level), and
- is a summary measure of a plurality of alternative methodological scenarios (including *inter alia* multi-criteria analysis and cross-efficiency data envelopment analysis).

These conclusions support the conceptual framework and methodological approach of the 2006 Index, which additionally has a simple form (arithmetic average of scaled indicators) that is easy to communicate to the wider public.

Data-driven narratives on governance issues in Africa are also offered in this report in order to draw attention to messages and debates that may stem from an index-based analysis of governance.

Overall, the Index of African Governance can reliably be used to identify weaknesses and possible remedial actions, to make easy spatial and temporal comparisons (benchmarking), to prioritize African countries with relatively low levels of governance, and ultimately to monitor and evaluate policy effectiveness.

Conclusions

The Index of African Governance, developed by the Harvard Kennedy School (Rotberg and Gisselquist, 2008) distils key aspects of governance in five main dimensions:

- a. Safety and Security,
- b. Rule of Law, Transparency, and Corruption,
- c. Participation and Human Rights,
- d. Sustainable Economic Opportunity, and
- e. Human Development.

These dimensions of governance range from National Security and Participation in Elections to Environmental Sensitivity, Poverty and Education. A total of 57 indicators is included in the conceptual framework for the Index. As always when combining statistical indicators to capture a complex dimension, the Index of African Governance is a mixture of analysis and advocacy related to the political priorities of 48 African countries south of the Sahara.

Important findings suggest that:

- The performance of African countries is in general satisfactory in four of the five pillars. However, the Sustainable Economic Opportunity pillar, which captures issues of Wealth Creation, Macroeconomic Stability and Financial Integrity, Arteries of Commerce, and Environmental Sensitivity, represents the main challenge for the majority of the countries: only six countries manage to score more than 50 points (Botswana, Gabon, Mauritius, Namibia, Seychelles, South Africa).
- There is only one country, South Africa, which scores at the top of the Index (2nd) but has a very poor performance in one of the pillars, coming 42nd in Safety and Security. The challenges in South Africa lie in decreasing the "Ease of Access to Small Arms and Light Weapons" and the number of "Violent Crime (Homicides)". No other

country makes it to the top of the Index without scoring moderately to highly in all five pillars of governance. The opposite, however, is observed for three countries whose overall Index score is in the bottom quartile, while scoring in the top quartile in one of the pillars: Liberia has top performance in Participation and Human Rights (2nd), Equatorial Guinea in Sustainable and Economic Opportunity (9th), and Sudan in Human Development (12th).

- Possible determinants of governance success in African countries are, among others, (1) Judicial Independence using Freedom House's Rule of Law; (2) Public Sector Corruption; (3) Respect for Civil rights; (4) Child Mortality, (5) Access to Drinking Water; and (6) Primary School Completion Rate.
- Other important aspects of governance, such as GDP growth, inflation, income inequality and HIV prevalence, although they were included in the conceptual framework, do not bear any statistically significant association to the Index scores. These results do not imply that keeping inflation, income inequality and HIV prevalence at low levels, and GDP growth at high levels, should not be among the policy objectives of governments in African countries. They simply point to the fact that even if governments made an effort to improve these aspects, the effort would not be captured by the Index of African Governance. The same comment holds for other indicators, such as Number of Days to Settle a Contract Dispute, Deficits/Surplus as a % of GDP, Business Environment, Incidence of Tuberculosis, and Progression to Secondary School.
- Regarding an eventual question of whether population size can favour governance, in African countries south of the Sahara, the 2006 Index results show that there is no clear pattern as to whether population size can have a positive or negative impact on governance (regression coefficients either very low or not statistically significant).
- There is a high degree of reverse association (r = -0.908) between the Index scores and the variability in the 14 sub-pillars. An implication of this finding is that while changes in the Index scores over time could be regarded as a quantitative indication of trends in governance in Africa, those in respect of the variability could be seen as indicating qualitative changes. To be successful, an African country must put simultaneous efforts into achieving multiple goals within a coherent governance strategy, while working towards the reduction of existing gaps performance. As the exceptional behaviour of a few countries indicates (i.e. countries which have very low overall Index performance but very high performance in just one of the five pillars of governance, e.g. Liberia, Equatorial Guinea and Sudan), a disproportionate emphasis on a limited number of objectives without concomitant focus on the many other the determinants of governance can yield only marginal results.

We subjected the Index to thorough validity testing. First, we conducted an internal consistency check to assess whether the conceptual framework was confirmed by the statistical analysis and whether there were any potential pitfalls. Within this context, we suggested merging some categorical values in four qualitative indicators: Ratification of Core International Human Rights Conventions, Property Rights Index, Respect for Physical Integrity Rights and Respect for Civil Rights. We also confirmed the conceptual framework and its splitting into pillars and sub-pillars by means of (linear or non-linear) Principal Component Analysis. The impact of choosing an equal weighting within each pillar, as preferred by the developers, versus a PCA-based weighting to estimate the pillar ranking, was also estimated and was found to be non-important in the case of four of the five pillars. Only the pillar on Sustainable Economic Opportunity needs to be treated with caution due to missing data, in particular on the Environmental Sensitivity index. The original approach to estimating missing data by mean substitution is not particularly apt, as discussed in Sect. 3; hot-deck imputation is recommended instead. Despite these pitfalls, the Index of African Governance is supported by more sophisticated statistical analysis, and has the advantage of computational simplicity.

Among the good features of the Index, we would also stress three points:

- All correlations between the overall Index scores and each of the five pillar scores are positive and relatively high (r = 0.69 0.89). This shows that the pillars and the Index point in the same direction and that there are no trade-offs between the main pillars of the composite indicator.
- Overall, there is no strong dominance issue, neither at the sub-pillar nor at the pillar level. However, given that the variance of the pillar on Participation and Human Rights is twice or even almost five times greater than the variance of the other pillar scores, it seems that this pillar has a higher discriminating power among the Index scores compared to the other pillars, despite the equal weighting of the five pillars. This phenomenon could be avoided by standardising the five pillar scores prior to finally aggregating them into an overall Index score. The

same remark, at the sub-pillar level, holds for Participation in Elections.

• The overall Index reflects, without distortion, the information content in the dataset, given the compatibility of the cluster analysis results at the sub-pillar level and the pillar level.

Second, we conducted an uncertainty analysis to assess the impact on the Index ranking of simultaneous variations in the methodological assumptions related to the weighting scheme, the aggregation method and the number of sub-pillars included in the framework. The effect proved to be acceptable for the vast majority of the countries, but important for seven countries: Rwanda, Mali, Niger, Guinea-Bissau, Zambia, Gambia and Nigeria. Any Index-driven narrative on those countries should be considered only as suggestive and contingent on the original methodological assumptions made in developing the Index. Overall, the Index of African Governance gives a fair representation of the ensemble of models considered and, consequently, it is a construct that African governments could relate to and utilise. The sensitivity analysis results indicated that although the different scenarios produce relatively different rankings compared to the original Index ranking, on average these rankings are very similar to the 2006 Index ranking. The Spearman correlation between the 2006 Index ranking and the most extreme scenario is 0.872, and the correlation between the 2006 Index ranking and the most extreme scenario employing the full framework of 14 sub-pillars is 0.936. Additionally, the scenarios which employ a multi-criteria analysis aggregation rule produce results that are relatively similar to the Index ranking ($r_s \ge 0.94$). This conclusion supports the methodological approach used by the developers, which, despite its linear form, provides a ranking that is not particularly affected by compensability issues. Finally, the strong correlation between the Index ranking and the cross-efficiency DEA ranking ($r_s = 0.984$) suggests that even if the ensemble of the 48 "country-specific weighting schemes" had been employed to build the Index of African Governance, as opposed to a single and fixed set of weights for all countries, the picture of the state of governance in African countries would not have been substantially affected.

The Index of African Governance, having passed the "statistical" filters of index quality, can reliably be used to measure governance in countries south of the Sahara, to identify weaknesses and propose remedial actions. From the point of view of implications, the assessment carried out on the Index does not represent merely a methodological or technical appendage. Composite measures are often attached to regulatory mechanisms whereby governments or organizations are rewarded or penalised according to the results of such measurements. The use and publication of composite measures can generate both positive and negative behavioural responses and if significant policy and practice decisions rest on the results, it is important to have a clear understanding of the potential risks involved in constructing a composite and arriving at a ranking or benchmarking.

The analysis undertaken in this work provides no guarantee of the true ability of the Index to describe governance in African countries. Yet, it provides enough evidence that the Index of African Governance, tailored to the specific policy objectives and priorities in countries south of Sahara, cannot easily be falsified.

COUNTRY RESPONSES

The Index of African Governance is anxious to confer with as many African countries as possible about the many ways in which African governments and civil societies could best adapt the Index and its annual findings to their needs. In 2009, based on the 2008 Ibrahim Index, Rwanda initiated such a dialogue, as explained in the Rwandan critique that follows. We have also discussed the Index and its work with colleagues during smaller meetings in a number of other countries.

Because we prefer the broadest possible outreach and dissemination of the work of the Index, and as much feedback as possible, we have invited scholars and officials throughout the region to contribute "country responses," short papers that discuss and critique the Index results on each country and form a basis for continuing research and discussion. The following paper from Rwandan officials and academics who attended the Rwandan dialogue is the first such contribution.

Written from the Rwandan perspective, it contains an important commentary on the way in which the Index has been constructed. Rwandans, in Kigali and again in the following paper, requested the fuller use of locally collected data for several of the critical indicators. They regard their locally derived data as superior to the internationally compiled data that the Index most often employs. They point out some notable discrepancies between their locally derived figures and international figures used by the World Bank, UNESCO, WHO, and our Index, among others. And they argue for a stronger weighting and a rethinking of some key sub-categories, such as public sector corruption.

The following paper provides an important basis for continued discussions—discussions which will be enriched by similar such responses from other governments, and from non-government actors. By way of a preliminary response, we offer several observations:

At least a few of the local figures presented in the following paper are clearly measured in different ways than the international figures that we deploy. Thus, at least some of the "discrepancies" highlighted in the paper between local and international figures are not discrepancies per se, but different measurements. For instance, as the authors acknowledge, in measuring adult literacy, our figure refers to literacy among all adults above the age of 15, while the Rwandan national figure refers to those 15–24 years of age. It is not surprising then that the Rwandan figure is higher than ours. Further careful technical analysis would need to be done to assess to what extent such measurement issues explain the data discrepancies identified.

At the same time, as we say elsewhere in this Index (p. 1), we ourselves have an extensive team of African researchers gathering local data on the ground. Those data are being refined and tested. We introduce at least some of those local data in this Index and hope to incorporate more local data in future Indexes. We have found so far that the local data, in Rwanda and elsewhere, sometimes vary considerably from the internationally developed data. We are attempting to reconcile those differences and to learn how best to deploy the local data that we obtain. We intend to continue engaging in local data collection and to continue testing and refining it.

Finally, much of the local data offered in the paper and in Kigali are perceptually based, and the Index attempts to rely little on perceptions. The Index, as indicated in its opening pages, much prefers "hard" data—outcome data objectively derived. And, because so many other projects focus on perceptual data, our focus on hard data means that the Index can provide a useful point of comparison to this other work.

Interestingly, however, we cannot make that assertion with regard to the measurement of national corruption, a key component of the Index. In the Index we rely on the international gold standard—the Corruption Perceptions Index of Transparency International. It is based on surveys and perceptions. The Rwandans say, with some justice, that their local estimates are better. But the Index, at least for now, is constrained to attempt comparability across all countries,

hence our preference for an international data source and our reluctance to use local sources when their accuracy is as yet imperfectly tested.

We invite readers and users to offer their own national responses to the results displayed in the 2009 Index. We are pleased to share the Rwandan response to the 2008 Index.

THE INDEX OF AFRICAN GOVERNANCE: RWANDA RESPONSE

Anastase Shyaka, Yusuf Murangwa and Mohammed Alibata¹

On January 14, 2009, a high-level workshop on the Index of African Governance was convened in Kigali, Rwanda. The aim of this seminar was to provide a platform for an in-depth discussion on the 2008 Ibrahim Index of African Governance between governance stakeholders in Rwanda and the creators of the Index, who came from Harvard University. This seminar was the first of its kind on the continent, providing a forum for governance experts and African leaders directly to discuss the results of the Index.

The meeting was organized by the Ministry of Finance and Economic Development and the Ministry of Local Government, in collaboration with the Rwanda Governance Advisory Council. It was attended by cabinet ministers and other high-ranking government officials, development partners, members of civil society and the private sector, and media and religious leaders. Some of the points reflected in this paper were raised at the workshop.

How Does Rwanda Perform Over Time and How Does It Score by Category?

As the following table shows, Rwanda made tremendous progress over time both in terms of overall scores and rank among its peers.

Table 1: Overall Scores and Ranks for Rwanda: 2000-2006

	2000	2002	2005	2006
Overall Score (out of 100 points)	47.6	49.6	57.9	59.0
Overall Rank (out of 48 countries)	35th	35th	17th	18th

Source: Robert I. Rotberg and Rachel M. Gisselquist, Strengthening African Governance: Ibrahim Index of African Governance, Results and Rankings 2008 (Cambridge, MA, 2008).

From 2000 to 2006, Rwanda improved its overall score more than ten points (out of 100). In 2005 and 2006, its overall score was above 50 (57.6 and 59.0, respectively), while in the two previous Index years, its overall score was below 50. Its overall rank also improved over time. In 2000 and 2002, Rwanda was ranked among the last fifteen countries, while in 2005 and 2006, it ranked among the top twenty best-governed African states.

When you look at Rwanda's scores by category over time, you see three evident trends. Rwanda has scored well over time (above 90) in the "Safety and Security" category. In "Participation and Human Rights," Rwanda has improved its score over time from less than 25 in 2000 and 2002 to 66.5 and 69.5, in 2005 and 2006, respectively. In the three remaining categories, Rwanda's scores are below fifty.

How Does Rwanda Compare to Its Neighbors of the East African Community (EAC) and sub-Saharan Africa (SSA) in the 2008 Ibrahim Index of African Governance?

The following table sheds light on Rwanda's performance in 2008 in all five categories of the Ibrahim Index, compared to its peers in the EAC and in sub-Saharan Africa.

¹ Professor Anastase Shyaka is Executive Secretary of the Rwanda Governance Advisory Council, Yusuf Murangwa is Acting Director General of the National Institute of Statistics of Rwanda, and Dr. Mohammed Alibata is Senior Technical Advisor of the National Institute of Statistics of Rwanda.

Auste 27 Australia 5 2000 Category Scores a						
Category	Scores by	SSA rank	EAC Rank			
	category (values	(out of 48)	(out of 5)			
	out of 100)					
Safety and Security	98.4	4	1			
Rule of Law, Transparency, and	46	34	5			
Corruption						
Participation and Human Rights	69.5	22	1			
Sustainable Economic Opportunity	37.7	29	4			
Human Development	43.6	37	4			

Table 2: Rwanda's 2008 Category Scores and Its Ranking in SSA and the EAC

Source: Elaborated by Rwanda Governance Advisory Council (GAC) on the basis of data from Rotberg and Gisselquist, Strengthening African Governance (2008).

Scoring 98.4 in the category of Safety and Security, Rwanda leads the EAC and is among the top four countries on the whole continent in this category. In terms of Participation and Human Rights, Rwanda is number one in the EAC region, but it scores only 69.5, which makes it behind on a continental scale. However, on the three remaining categories, Rwanda's scores are low: compared with other EAC countries, it ranks second to last in two categories and last in the third. Why does Rwanda score so low in these categories? Do these poor scores reflect poor performance on the ground? In other words, do the results of the Index match up with locally conducted studies of governance in Rwanda? The next section attempts to respond to these questions.

The 2008 Ibrahim Index Results Compared with the Findings of Locally Conducted Studies

A comparison between the results of the 2008 Ibrahim Index of African Governance and those of locally conducted studies shows that on some sub-sub-categories (indicators), the Ibrahim Index scores are the same or nearly the same as local data sources. On other indicators, the two do not match up, and, sometimes, differences are large. And, in almost all the cases, 2008 Ibrahim Index values are lower than values from local studies.

The categories in which such differences are largest are those where Rwanda has poor scores in the 2008 Ibrahim Index, namely Human Development; Sustainable Economic Opportunity; and Rule of Law, Transparency, and Corruption. The above-mentioned workshop in Kigali discussed these data discrepancies and recommended the use of local sources in future editions of the Index of African Governance.

In the category of Safety and Security, the data used by the 2008 Ibrahim Index are found to be similar or close to local data. A study commissioned by the Regional Center on Small Arms (RECSA) has shown that 96 percent of members of civil society organizations and 94 percent of the general public declare a high level of trust and satisfaction with security organs and their effectiveness in providing security to citizens.²

In the category of Sustainable Economic Opportunity, data on the following indicators are the same as, or close to that from local sources: GDP per capita (\$715.4 in 2006); inflation (8.8 percent); computer usage per 100 inhabitants (0.3); and internet usage per 100 inhabitants (1.08 in the 2008 Ibrahim Index and 1.00 according to local sources). In the category of Human Development, data are identical to local sources on the following indicators: poverty rate at \$1 per person per day (57 percent); poverty rate at the national poverty line (56.9 percent); inequality measured with the GINI index (51); HIV prevalence (3.0 percent); and adult literacy rate, female (59.8 percent). However, where are there data discrepancies in these categories, and how significant are they? Tables 3 and 4 shed some light on these questions.

² RECSA and RNFP/SALW NAP Survey on Eradication of Illicit Small Arms and Light Weapons (Kigali, 2008). RNFP/SALW is the Rwanda National Focal Point on Small Arms and Light Weapons. NAP is the National Action Plan on Small Arms Control and Management.

Indicator	2008 Ibrahim Index of	National Sources
	African Governance	
GDP per capita growth (annual %)	2.74	14.6 ³
Electricity installed capacity per	0.0034	0.00484
capita (kilowatts)		
Deficits/surplus as a percentage of	-0.5	-0.4
GDP		

Table 3: Sustainable Economic Opportunity: Areas Where Index Values Differ from Local Sources

Sources: Rotberg and Gisselquist, Strengthening African Governance (2008); National Institute of Statistics–Rwanda (NISR), Annual Report 2006 (Kigali, 2006); Ministry of Finance and Economic Planning (MINECOFIN), data for 2006.

The difference in values does not appear to be large for "Electricity Installed" and "Deficits." It must be noted, however, that the data discrepancy for GDP is overwhelmingly large (near 12 percent). The same situation is also observed in the category of Human Development, as shown below.

Indicator	2008 Ibrahim Index of	National Sources
	African Governance	
Life expectancy at birth (years)	45.6	51
Child mortality per 1,000	167.1	152
Maternal mortality (per 100,000 live births)	1300	750 ⁵
Adult literacy	64.9	776
Primary school completion rate (% of	35.5	51.77
relevant age group)		

 Table 4: Human Development: Areas Where Index Values Differ from Local Sources

Source: NISR database. Data provided by the Ministries of Health and Education for 2006.

Major differences in value are noted in the following indicators: maternal mortality (-550 of difference); primary school completion (16.2 percent difference); and life expectancy (5.4 years difference).

We thus find that the category scores for Sustainable Economic Opportunity and Human Development have been substantially underestimated, due to underestimation of these indicator values. In our view, although there might be slight differences in how some of the indicators are calculated locally versus how they are calculated in the Index, such data discrepancies explain Rwanda's poor scores in some categories of the 2008 Ibrahim Index. If the Index had used updated data, Rwanda's scores in these categories could have significantly improved and so too could have its overall score.

Rule of Law, Transparency, and Corruption

The category of Rule of Law, Transparency, and Corruption raised even more debate during the Kigali workshop. In our view, the origin of the controversy is three-fold: First, the three parts of the category are so important to governance that they should be split into at least two separate categories (Rule of Law on the one hand, and Corruption and

³ For national sources, the GDP per capita growth rate in 2006 is based on GDP valued at constant prices for the years 2005 and 2006, as well as population estimates for the two mentioned years.

⁴ The national figures refer to "electricity generated," which must be less than or equal to the electricity installed.

⁵ The national figure for maternal mortality is calculated using the direct sisterhood method as applied in the Demographic and Health Survey (DHS). The national figure refers to the average for 2002–2005. Naturally, the 2006 figure must be less than the figure given here.

⁶ The national figure refers to those 15-24 years of age. It is consistent with the MDG Indicators.

⁷ The national figure is calculated by taking the total number of students in the last grade of primary school, minus the number of repeaters in the last grade, divided by the total number of children of official graduation age.

Transparency on the other). Second, corruption, which is an important indicator of governance, is underweighted in this category and, therefore, the scores are likely to miss data on corruption and anti-corruption policies/practices and, thus, misrepresent the reality. Third, the results of the 2008 Ibrahim Index in this area do not match up with findings from locally conducted studies.

The fact that in this category Rwanda is ranked last in the EAC region and yet Rwanda is generally recognized as the leading nation in the EAC on anti-corruption issues constitutes a particular discrepancy. The following figures tell more about data discrepancies in this category:



Source: Elaborated by Rwanda Governance Advisory Council (GAC) on the basis of the results of surveys conducted in 2005–2007 by the National Unity and Reconciliation Commission (NURC) and the International Rescue Committee; NURC, Social Cohesion–Opinion Survey, 2005; 2006; and 2007. Sample size: 9,000 respondents in all 416 sectors of Rwanda.



Figure 2: Perceptions of Corruption and Corruption Trends

Source: Elaborated by the GAC on the basis of findings of Transparency Rwanda's independent study in 2008, "Corruption and Governance in Rwanda" (unpublished). Sample size: 2,400 respodents from 80 (out of 416) sectors of Rwanda

As Figure 2 illustrates, survey respondents clearly indicated that corruption is being reduced in Rwanda. And, for them, this reduction is a result of an anti-corruption culture that is growing in government and institutions of accountability, as well as because of government effectiveness in fighting corruption. It is also worth noting that the same study asked respondents to rank corruption in Rwanda on a 0 to 1 scale (with '0" meaning that corruption is not a problem in society and "1" meaning that it is a major problem in society). On average, corruption scores were 0.07 for the public sector and 0.06 for the private sector.



Source: Ombudsman's Office Annual Report for 2006 and 2007. About 1,000 cases were brought to the ombudsman annually.

Figure 3 illustrates the consolidation of institutional accountability to fight corruption and injustice in two ways: The first way is the growing effectiveness of the Ombudsman Office in dealing with problems brought by citizens and finding suitable solutions to them. The second one is related to the growing effectiveness of organs and institutions charged with the responsibility to enforce the Ombudsman's decisions/resolutions. And in most of the cases, these enforcing organs are local government authorities and central government departments.

Governance Trends in Rwanda

Governance in Rwanda keeps improving and Rwanda's governance stakeholders continue to be mobilized for good governance. The category of Safety and Security is likely to maintain its high score or even increase, especially with the impact of Parliament's newly adopted National Policy on Small Arms and Light Weapons (SALW), as well as the National Action Plan (NAP) on SALW currently in the approval process. In addition, the 2008 parliamentary elections conferred 56 percent of parliamentary seats to women, which makes Rwanda the only country in the world with female representation in parliament of more than 50 percent. This is likely to improve Rwanda's score on the Participation and Human Rights category. Rwanda's scores in the categories of Human Development and Sustainable Economic Opportunity should increase as well, given reforms in the education and health sectors, especially campaigns for girls' education and improved health conditions thanks also to the countrywide Health Insurance Scheme (*Mutelle de Santé*). The other element to likely improve Rwanda's score is the current, vibrant business-friendly reforms engendered by the Private Sector Federation and the newly established Rwanda Development Board.

The anticipated positive trend in the overall governance of Rwanda is also evident through various government innovations, actions, and institutional developments. The adoption and impact of *Imihigo*, the adoption of the Joint Governance Assessment and its outputs, continued improvement of gender representation, and the establishment of the Rwanda Governance Advisory Council (GAC) and its impact on governance policy formulation and implementation are a few indicative examples:

Known also as a performance contract, *Imihigo* has mobilized government, and in particular local government authorities, toward rapid results in achieving good governance, social welfare and justice, poverty reduction, and national development. Combining elements of competitiveness and performance, *Imihigo* is catalyzing good governance at the local level and is intensifying rural transformation.

In conjunction with its development partners, Rwanda developed and adopted a Joint Governance Assessment (JGA) in 2008. This assessment, the first ever successful undertaking of its kind on the continent, noted the progress made in advancing good governance in post-genocide Rwanda. The JGA also provides a set of agreed-upon indicators that are used by Rwanda and its development partners to assess and report on governance in the country. The JGA is globally resourced and locally sensitive and is made up of fifteen indicators and forty-five variables grouped into three areas, namely, Ruling Justly, Government Effectiveness, and Investment Climate and Corporate Governance.

Many institutions of accountability have been created to boost good governance in the country. In particular, the Rwanda Governance Advisory Council (GAC) has been established and mandated, among others, to provide to public and private institutions research-based recommendations for actions and policy reforms that are likely to raise governance standards in the civic, political, and corporate domains. GAC has been also specifically mandated to monitor and evaluate the progress of the JGA indicators.

Conclusion

At the Kigali seminar, Rwandan governance stakeholders expressed their appreciation for the Index of African Governance. They appreciated the methodology that the experts used in the Index, and especially their willingness to bring it closer to African stakeholders and to improve it based on local feedback. As we have shown in this report, data discrepancies identified in three out of five categories of the 2008 Ibrahim Index of African Governance have weakened Rwanda's scores. We conclude that there is a need to use locally generated and locally authentic sources in future reports to have scores reflect, as accurately as possible, the reality on the ground. Local opinion surveys on governance standards also need to be given more importance in the Index, as they illustrate people's appreciation for governance as a political and public good.

Finally, given the challenge that corruption poses to governance in Africa, the weighting of corruption should be revisited and better-represented in its respective category. Another option to address this issue would be to consider corruption (and transparency) as a separate category that stands on its own, with its own set of indicators.

CATEGORIES OF ANALYSIS

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 segment 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 2009 Index of African Governance analyzes a country'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) that are measured to create each national profile. Indicators are summarized in the table on "Summary of Indicators and Principal Sources" and described further below.

In the overall results for this category, Cape Verde scores at the top in the latest Index year (2007), followed closely by Mauritius, Gabon, Egypt, Morocco, São Tomé and Príncipe, Tunisia, Libya, and Rwanda, in ninth place. (Indeed, scores for the first eight of these countries all round to 100.0. The difference in scores between Cape Verde in first place and Libya in eighth place is thus miniscule.) All of these countries benefit in this category from their relative peace and relative lack of violent crime. By contrast, civil war, displacement, or violent crime have been extreme in the countries at the bottom of this category: these are, from the bottom up, Somalia (53rd place), the Sudan, the Democratic Republic of the Congo, the Central African Republic, and Chad (49th place). South Africa (in 48th place) is also notable. Its poor scores in this category contrast with its strong performance in other categories, and are due largely to its high crime rates.

National Security

1. The number of armed conflicts in which a government is involved during that year and in which there are at least twentyfive battle-related deaths.² It is adapted from the Uppsala Conflict Data Program (UCDP) and Centre for the Study of Civil Wars, International Peace Research Institute, Oslo (PRIO)'s "UCDP/PRIO Armed Conflict Dataset v.4–2009, 1946–2008."³

¹ See the extended argument in Robert I. 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 4–2009," 1).

³ 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 www.pcr.uu.se/research/UCDP/data_and_publications/datasets.htm (last accessed 22 July 2009).

2. Intensity of the violent conflicts in the country in that year, expressed in terms of 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. 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.2, 2002–2006." Estimates for years not included in these datasets were compiled by our team directly from the UCDP Database.⁴

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. Estimates for 2000, 2002, 2005, and 2006 are drawn from the "UCDP One-Sided Violence Dataset v.1.3 1989–2006."⁵ Estimates for 2007 were unavailable from this source and have been compiled by our team directly from the UCDP Database.⁶

4. *Refugees and asylum seekers originating from each country*, based on the UNHCR's Statistical Online Population Database.⁷ 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 Bank's World Development Indicators 2009.⁸

5. Internally displaced persons (IDPs), based principally on estimates and reports of the Internal Displacement Monitoring Centre (IDMC) and, for earlier years of the Index, the U.S. Committee for Refugees and Immigrants (USCRI)'s World Refugee Survey. 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 three-point scale adapted from coding done by the Economist Intelligence Unit (EIU) for the Global Peace Index 2008 and 2009, and supplemented by our own estimates for seventeen countries. Estimates provide a snapshot assessment for 2000–2007, but do not show variation over time.

Public Safety

7. *Level of violent crime*, based on the homicide rate, and scored on a four-point scale, adapted from coding on homicide rates done by the EIU for the Global Peace Index 2008 and 2009. This year we present new data on homicide rates based on national statistics gathered by our Index researchers throughout Africa and on the United Nations Surveys on Crime Trends and the Operation of Criminal Justice Systems (7th, 8th, 9th, and 10th surveys).⁹ In addition, we draw on the approach and information provided by the Global Peace Index on its indicator of homicides.

Future Work

The category of Safety and Security presents strong challenges for measurement. The authors are particularly aware of—and continue to work toward solutions for—two additional weaknesses:

First, the category of Safety and Security does not currently capture intermediate-sized conflict—those conflicts larger than criminal acts affecting individuals (as captured under the Public Safety indicators), but smaller than conflicts involving at least twenty-five deaths (as captured under the National Security indicators). Events such as the targeting of migrants in South Africa or food riots in Burkina Faso in 2008, for instance, clearly threaten safety and security, but

⁴ The Database was last accessed 16 August 2009.

⁵ 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. See also Joakim Kreutz, "UCDP One-sided Violence Codebook (Version 1.3–September 4, 2008)," (2008), available at www.pcr.uu.se/research/UCDP/data_and_publications/datasets.htm (last accessed 22 July 2009).

⁶ Last accessed 16 August 2009.

⁷ Last accessed 7 August 2009.

⁸ Last accessed 7 May 2009.

⁹ The 10th Survey covers 2005 to 2006, the 9th Survey covers 2003 to 2004, the 8th covers 2001 to 2002, the 7th covers 1998 to 2000. The 10th Survey was collected during 2008 and, as of 20 May 2009, data collected as of 10 December 2008 was made available.

would not be fully captured in the Index.¹⁰ (They might be captured in part under measures for Respect for Physical Integrity Rights and under violent crime.) Better indicators of such conflicts might assess the number of riots per year, the number of individuals killed or injured in riots, or property damage associated with riots.

The Index team explored a number of sources for such data but concluded that no existing study provides sufficiently up-to-date and cross-nationally comparable data for direct inclusion in the Index, and that completing a comprehensive coding on riots from primary sources is also infeasible at this time. Coding riots in a reliable manner is problematic for several reasons: First, reporting of such events is selective, making it difficult to find a source that can be used to generate reliable information. International news sources pay little attention to events short of war in many countries. Local news sources, which may provide more complete coverage, similarly may be biased toward events in the capital or in large cities. In addition, in many countries, state dominance of the media raises doubts about the quality of local news coverage and media bias. Given these difficulties, the Index team judged that such variables would be misleading at this time; instead, this is an important area for additional qualitative research and country-specific case studies.

Among existing sources with information on all African countries, one of the sources we are aware of is Arthur Banks's Cross-National Time-Series Data Archive.¹¹ The Banks database employs Rummel's definition of riots as any violent demonstration or clash of more than 100 citizens involving the use of physical force.¹² Based on this definition, the database recorded the following riots in Africa from 2005 to 2007:

	2005	2006	2007
Congo (Brazzaville)			3
Congo, Democratic Republic		2	1
Côte d'Ivoire		2	
Egypt	2		
Ethiopia	2		
Guinea			1
Kenya			2
Nigeria		4	
Sudan	1		
Tanzania	1		
Togo	3		
Uganda	1		

Another source of potentially relevant information is Michael Bratton and Nicolas van de Walle's *Democratic Experiments in Africa: Regime Transitions in Comparative Perspectives* (New York, 1997) and the underlying dataset used in its analysis. Unfortunately, this source is not up to date.

¹⁰ This point was discussed in detail in our October 2008 workshop on the Ibrahim Index, "Capacity Building for Governance: Index of African Governance Workshop," 13–17 October 2008, Harvard Kennedy School, Cambridge, Massachusetts. We thank, in particular, Gavin Cawthra for comments.

¹¹ Arthur S. Banks, "Cross-National Time-Series Data Archive (CNTS) 1815–2007," hdl:1902.1/11448 Databanks International [Distributor] (last accessed 16 September 2009).

¹² See Rudolph J. Rummel, "Dimensions of Conflict Behavior Within and Between Nations," General Systems: Yearbook of the Society for General Systems, VIII (1963), 1–50.

Measures of crime present a second challenging area for the Index, as discussed further below. 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 below in the descriptive notes on violent crime. In addition to the information presented here on homicide rates, the Index team has also collected official statistics from local sources on assault, theft, and rape, which will be analyzed and made available at a later date.

SAFETY AND SECURITY RANKINGS (LISTED BY 2007 SCORE)

1	Cape Verde	100.0
2	Mauritius	100.0
3	Gabon	100.0
4	Egypt	100.0
5	Могоссо	100.0
6	Sao Tome and Principe	100.0
7	Tunisia	100.0
8	Libva	100.0
9	Rwanda	98.3
10	Madagascar	94.4
11	Mozambique	94.4
12	Benin	94.4
13	Burkina Faso	94.4
14	Comoros	94.4
15	Ghana	94.4
16	Malawi	94.4
17	Diibouti	94.4
18	Equatorial Guinea	94.4
19	Gambia	94 3
20	Senegal	94.1
21	Algeria	93.7
22	Niger	90.4
23	Eritrea	89.4
24	Tanzania	88.9
25	Namibia	88.8
26	Guinea-Bissau	88.8
27	Sevchelles	88.8
28	Guinea	88.2
29	Angola	83.9
30	Zambia	83.3
31	Cameroon	83.2
32	Тодо	82.9
33	Uganda	81.3
34	Ethiopia	80.3
35	Mali	79.4
36	Zimbabwe	78.9
37	Botswana	77.8
38	Sierra Leone	77.1
39	Mauritania	76.6
40	Kenya	76.2
41	Swaziland	72.2
42	Congo (Brazzaville)	71.4
43	Cote d'Ivoire	69.9
44	Lesotho	66.7
45	Burundi	66.5
46	Nigeria	66.4
47	Liberia	63.9
48	South Africa	61.1
49	Chad	55.2
50	Central African Republic	50.1
51	Congo, Democratic Republic	43.3
52	Sudan	35.5
53	Somalia	33.3

SAFETY AND SECURITY CATEGORY SCORES (LISTED BY COUNTRY "A" TO "Z")

	2000	2002	2005	2006	2007
Angola	62.6	62.2	87.2	87.5	83.9
Benin	94.4	94.4	94.4	94.4	94.4
Botswana	77.8	77.8	77.8	77.8	77.8
Burkina Faso	94.4	94.4	94.4	94.4	94.4
Burundi	47.1	48.1	59.6	62.0	66.5
Cameroon	83.3	83.3	83.2	83.3	83.2
Cape Verde	100.0	100.0	100.0	100.0	100.0
Central African Republic	55.6	50.4	51.6	46.4	50.1
Chad	56.6	55.2	54.7	46.7	55.2
Comoros	94.4	94.4	94.3	94.4	94.4
Congo (Brazzaville)	70.6	64.6	70.5	71.3	71.4
Congo, Democratic Rep.	38.3	30.2	51.8	47.9	43.3
Cote d'Ivoire	71.5	59.8	70.0	69.7	69.9
Djibouti	94.1	94.4	94.3	94.4	94.4
Equatorial Guinea	94.3	94.3	94.3	94.3	94.4
Eritrea	72.9	84.0	90.3	89.3	89.4
Ethiopia	81.0	83.9	83.6	80.3	80.3
Gabon	100.0	100.0	100.0	100.0	100.0
Gambia	94.4	94.4	94.3	94.3	94.3
Ghana	94.4	94.2	94.3	94.4	94.4
Guinea	83.7	88.2	88.7	88.7	88.2
Guinea-Bissau	86.6	88.8	88.8	88.8	88.8
Kenya	77.6	77.3	76.7	77.1	76.2
Lesotho	66.7	66.7	66.7	66.7	66.7
Liberia	52.8	49.4	59.0	61.6	63.9
Madagascar	94.4	94.4	94.4	94.4	94.4
Malawi	94.4	94.4	94.4	94.4	94.4
Mali	83.3	83.3	83.3	83.3	79.4
Mauritania	76.5	76.5	76.5	76.5	76.6
Mauritius	100.0	100.0	100.0	100.0	100.0
Mozambique	94.4	94.4	94.4	94.4	94.4
Namibia	85.1	87.0	88.8	88.8	88.8
Niger	94.4	94.4	94.4	94.4	90.4
Nigeria	66.6	64.5	65.8	66.4	66.4
Rwanda	91.4	95.0	97.5	98.8	98.3
Sao Tome and Principe	100.0	100.0	100.0	100.0	100.0
Senegal	90.4	94.0	94.2	93.7	94.1
Seychelles	88.8	88.8	88.8	88.8	88.8
Sierra Leone	53.9	74.3	76.9	76.9	77.1
Somalia	45.6	40.4	46.1	38.8	33.3
South Africa	61.1	61.1	61.1	61.1	61.1
Sudan	32.5	29.5	27.8	27.5	35.5
Swaziland	72.2	72.2	72.2	72.2	72.2
Tanzania	88.9	88.9	88.9	88.9	88.9
Togo	83.2	83.1	82.3	82.7	82.9
Uganda	80.7	75.7	77.1	80.9	81.3
Zambia	83.3	83.3	83.3	83.3	83.3
Zimbabwe	81.4	82.6	80.5	80.7	78.9
Algeria	89.0	91.7	94.5	94.0	93.7
Egypt	100.0	100.0	98.4	100.0	100.0
Libya	100.0	100.0	100.0	100.0	100.0
Morocco	100.0	100.0	100.0	100.0	100.0
Tunisia	100.0	100.0	100.0	100.0	100.0

SAFETY AND SECURITY RANK (LISTED BY COUNTRY "A" TO "Z")

	2000	2002	2005	2006	2007
Angola	44	44	29	29	29
Benin	12	13	14	14	12
Botswana	35	35	36	37	37
Burkina Faso	13	14	13	13	13
Burundi	50	50	47	46	45
Cameroon	30	32	33	32	31
Cape Verde	2	1	2	2	1
Central African Republic	47	48	51	51	50
Chad	46	47	49	50	49
Comoros	15	16	19	16	14
Congo (Brazzaville)	41	42	42	42	42
Congo, Democratic Rep.	52	52	50	49	51
Cote d'Ivoire	40	46	43	43	43
Djibouti	19	17	17	18	17
Equatorial Guinea	18	19	20	19	18
Eritrea	38	28	23	23	23
Ethiopia	33	29	30	36	34
Gabon	3	4	3	3	3
Gambia	16	18	21	20	19
Ghana	17	20	18	17	15
Guinea	27	26	28	28	28
Guinea-Bissau	25	25	27	26	26
Kenya	36	36		38	40
Lesotho	42	41	44	44	44
Liberia	49	49	48	47	47
Madagascar	43	10	11	12	10
Malawi	10	12	16	10	16
Mali	20	31	32	21	35
Mouritonio	23	37	40	40	30
Mauritania_	31	2	40	40	39
Maufilius	-	11	12	11	- 11
Niozambique_	3	27	12	25	25
Indilibia	20	15	20	25	20
Nigeria	14	15	15	15	22
Pwanda	43	43	45	45	40
Sao Tome and Principe	20	g	9	9	9
Sao Tome and Emerge	8	0	5	0	6
Senegal	21	21	22	22	20
Sigrra Laona	24	24	25	27	27
Siena Leone	48	39	38	39	38
Somana	51	51	52	52	53
South Africa	45	45	46	48	48
Sudan	53	53	53	53	52
Swaziland	39	40	41	41	41
Tanzania	23	23	24	24	24
Togo	31	33	34	33	32
Uganda	34	38	37	34	33
Zambia	28	30	31	30	30
Zimbabwe	32	34	35	35	36
Algeria	22	22	10	21	21
Egypt	5	5	8	4	4
Libya	7	8	7	8	8
Morocco	1	2	4	5	5
Tunisia	6	7	6	7	7

SAFETY AND SECURITY SUMMARY OF INDICATORS AND PRINCIPAL SOURCES

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); Center for the Study of Wars; and International Peace Research Institute, Oslo (PRIO) "UCDP/PRIO Armed Conflict Dataset (Version 4–2009, 1946–2008)"
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.2, 2002–2006"; 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.1.3, 1989–2006" and UCDP Database
4	Refugees and asylum seekers originating from the country	UNHCR's Statistical Online Population Database
5	Internally displaced persons (IDPs) within the country	"IDP Database" of the Internal Displacement Monitoring Centre (IDMC) and the U.S. Committee for Refugees and Immigrants (USCRI)'s World Refugee Survey
6	Ease of access to small arms and light weapons	Global Peace Index 2008 and 2009, supplemented by our own estimates

Sub-Category 1: National Security

Sub-Category 2: Public Safety

7		United Nations Surveys on Crime Trends and the
	Violent crime, expressed in terms of the	Operation of Criminal Justice Systems; official national
	homicide rate	statistics gathered from our own local research; Global
		Peace Index 2008 and 2009; and our own estimates

SAFETY AND SECURITY

a) National Security

	Government Involvement in Armed Conflict	Number of Battle Deaths	Civilian Deaths Due to One- Sided Violence
Angola	2	25	0
Benin	0	0	0
Botswana	0	0	0
Burkina Faso	0	0	0
Durkina Faso	0	50	0
Cameroon	0	0	0
Cape Verde	0	0	0
Central African Republic	0	0	25
Chad	2	195	0
Comoros	0	0	0
Congo (Progravilla)	0	0	0
Congo Democratic Ren	4	660	44
Cote d'Ivoire	0	0	0
Diibouti	0	0	0
Equatorial Guinea	0	0	0
Eritrea	0	0	0
Ethiopia	5	0	0
Gabon	5	507	225
Gambia	0	0	0
Ghana	0	0	0
Glialia	0	0	0
Guinea Cuinea Diagou	0	0	45
Guinea-Bissau	0	0	0
Kenya	0	0	66
Lesotho	0	0	0
Liberia	0	0	0
Madagascar	0	0	0
Malawi	0	0	0
Mali	2	39	0
Mauritania	0	0	0
Mauritius	0	0	0
Mozambique	0	0	0
Namibia	0	0	0
Niger	2	81	0
Nigeria	0	0	0
Rwanda	0	0	55
Sao Tome and Principe	0	0	0
Senegal	0	0	0
Seychelles	0	0	0
Sierra Leone	0	0	0
Somalia	2	1589	25
South Africa	0	0	0
Sudan	2	884	355
Swaziland	0	0	0
Tanzania	0	0	0
Togo	0	0	0
Uganda	2	116	67
Zambia	0	0	0
Zimbabwe	0	0	0
Algeria	2	468	0
Egypt	0	0	0
-o,r- Libva	0	0	0
Morocco	0	0	0
Tunisia	0	0	0
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SUMMARY OF RAW DATA (2007)

b) Public Safety

Refugees/	IDPs			
Asylum Seekers	Per 100,000	Ease of Access	Violent Crime	
Per 100,000 People	People	to SALW	(Homicide Rate)	
1 102	0.0	3	2	
5	0.0	3	3	
3	0.0	2	2	
4	0.0	3	2	
4 506	1177.0	4	2	
79	0.0	4	2	
7	0.0	3	2	
2 280	4535.6	5	5	
5/3	1662.2	4	5	
22	0.0	4	2	
685	207.1	4	4	
652	2112.0	5	5	
154	3681.6	4	4	
82	0.0	4	2	
96	0.0	4	2	
00	0.0	4	2	
4,304	227.4	4	2	
11	310.1	4	2	
122	0.0	3	2	
30	0.0	4	2	
29	0.0	4	2	
109	0.0	5	2	
76	0.0	5	2	
25	0.0	5	3	
1	0.0	3	5	
2,560	0.0	5	4	
1	0.0	4	2	
60	0.0	4	2	
42	0.0	4	3	_
1,093	0.0	5	3	
8	0.0	3	2	_
4	0.0	4	2	
55	0.0	3	3	_
8	0.0	4	2	
16	337.9	5	4	_
916	0.0	3	2	
21	0.0	3	2	_
135	322.3	4	2	
78	0.0	3	3	
629	0.0	5	3	
5,448	11499.6	5	5	
1	0.0	4	5	
1,407	12229.1	5	5	
8	0.0	4	4	
10	0.0	3	3	
362	0.0	4	3	
79	4237.3	3	3	
6	0.0	4	3	
363	6864.3	4	3	
35	1477.0	3	2	
11	0.0	3	2	
42	0.0	3	2	
15	0.0	3	2	
28	0.0	3	2	

SAFETY AND SECURITY SUMMARY OF INDEX

	<i>a) National Security</i> Government Involvement in Armed Conflict	Number of Battle Deaths	Civilian Deaths Due to One- Sided Violence	Refugees/ Asylum Seekers
Angola	66.7	99.2	100.0	89.3
Benin	100.0	100.0	100.0	100.0
Botswana	100.0	100.0	100.0	100.0
Burkina Faso	100.0	100.0	100.0	99.9
Durundi	100.0	98.4	100.0	56.3
Cameroon	100.0	100.0	100.0	99.2
Cane Verde	100.0	100.0	100.0	99.9
Central African Republic	100.0	100.0	97.1	77.8
Chad	66.7	93.9	100.0	94.7
Comoros	100.0	100.0	100.0	99.8
Congo (Brazzaville)	100.0	100.0	100.0	93.3
Congo Democratic Ren	33.3	79.3	95.0	93.7
Cote d'Ivoire	100.0	100.0	100.0	98.5
Djibouti	100.0	100.0	100.0	99.2
Equatorial Guinea	100.0	100.0	100.0	99.2
Eritrea	100.0	100.0	100.0	55.7
Ethiopia	16.7	84.1	74.3	98,9
Gabor	100.0	100.0	100.0	99,9
Gambia	100.0	100.0	100.0	98.7
Ghana	100.0	100.0	100.0	99.7
Guinea	100.0	100.0	94.9	98.9
Guinea-Bissau	100.0	100.0	100.0	99.3
Kenya	100.0	100.0	92.5	99.8
Lesotho	100.0	100.0	100.0	100.0
Liberia	100.0	100.0	100.0	75.1
Madagascar	100.0	100.0	100.0	100.0
Malawi	100.0	100.0	100.0	99.4
Mali	66.7	98.8	100.0	99.6
Mauritania	100.0	100.0	100.0	89.4
Mauritius	100.0	100.0	100.0	99,9
Mozambique	100.0	100.0	100.0	100.0
Namibia	l 100.0	100.0	100.0	99.5
Niger	66.7	97.5	100.0	99,9
Nigeria	100.0	100.0	100.0	99.8
Rwanda	100.0	100.0	93.7	91.1
Sao Tome and Principe	100.0	100.0	100.0	99.8
Senegal	100.0	100.0	100.0	98.7
Sevehelles	100.0	100.0	100.0	99.2
Sierra Leone	100.0	100.0	100.0	93.9
Somalia	66.7	50.1	97.1	47.1
South Africa	100.0	100.0	100.0	100.0
Sudan	66.7	72.2	59.5	86.3
Swaziland	100.0	100.0	100.0	99.9
Tanzania	l 100.0	100.0	100.0	99.9
Togo	100.0	100.0	100.0	96.5
Uganda	66.7	96.4	92.4	99.2
Zambia	100.0	100.0	100.0	99.9
Zimbabwe	100.0	100.0	100.0	96.5
Algeria	66.7	85.3	100.0	99.7
Egypt	100.0	100.0	100.0	99.9
Libva	100.0	100.0	100.0	99.6
Morocco	100.0	100.0	100.0	99.9
Tunisia	100.0	100.0	100.0	99.7

SCORES AND CATEGORY CALCULATIONS (2007)

b) Public Safety

IDPa	Ease of Access	Violent Crime	National Security	Public Safety	SAFETY & Security 2007
101.2	IU SALW		Sub-Score (2/3)	Sub-Score (1/3)	2007
100.0	100.0	66.7	92.5	66.7	83.9
100.0	50.0	100.0	91.7	100.0	94.4
100.0	100.0	33.3	100.0	33.3	77.8
100.0	50.0	100.0	91.7	100.0	94.4
93.7	50.0	33.3	83.1	33.3	66.5
100.0	50.0	66.7	91.5	66.7	83.2
100.0	100.0	100.0	100.0	100.0	100.0
75.7	0.0	0.0	75.1	0.0	50.1
91.1	50.0	0.0	82.7	0.0	55.2
100.0	50.0	100.0	91.6	100.0	94.4
98.9	50.0	33.3	90.4	33.3	71.4
88.7	0.0	0.0	65.0	0.0	43.3
80.3	50.0	33.3	88.1	33.3	69.9
100.0	50.0	100.0	91.5	100.0	94.4
100.0	50.0	100.0	91.5	100.0	94.4
98.8	50.0	100.0	84.1	100.0	89.4
98.3	50.0	100.0	70.4	100.0	80.3
100.0	100.0	100.0	100.0	100.0	100.0
100.0	50.0	100.0	91.5	100.0	94.3
100.0	50.0	100.0	91.6	100.0	94.4
100.0	0.0	100.0	82.3	100.0	88.2
100.0	0.0	100.0	83.2	100.0	88.8 Z
93.9	0.0	66.7	81.0	66.7	76.2 Ote
100.0	100.0	0.0	100.0	0.0	66.7 Se
100.0	0.0	33.3	79.2	33.3	63.9 Inc
100.0	50.0	100.0	91.7	100.0	94.4 lic
100.0	50.0	100.0	91.6	100.0	94.4 for
100.0	50.0	66.7	85.8	66.7	79.4 des
100.0	0.0	66.7	81.6	66.7	76.6 Crip
100.0	100.0	100.0	100.0	100.0	100.0 tion
100.0	50.0	100.0	91.7	100.0	94.4 IS fc
100.0	100.0	66.7	99.9	66.7	88.8 OF SO
100.0	50.0	100.0	85.7	100.0	90.4 OUTC
98.2	0.0	33.3	83.0	33.3	66.4 <u>e</u> s
100.0	100.0	100.0	97.5	100.0	98.3 and
100.0	100.0	100.0	100.0	100.0	100.0 add
98.3	50.0	100.0	91.2	100.0	94.1 litio
100.0	100.0	66.7	99.9	66.7	88.8 na
100.0	0.0	66.7	82.3	66.7	77.1
38.4	0.0	0.0	49.9	0.0	33.3 OTH
100.0	50.0	0.0	91.7	0.0	61.1 atio
34.5	0.0	0.0	53.2	0.0	35.5 ^m
100.0	50.0	33.3	91.7	33.3	72.2 Un
100.0	100.0	66.7	100.0	66.7	88.9 nb
100.0	50.0	66.7	91.1	66.7	82.9 IS
77.3	100.0	66.7	88.7	66.7	81.3
100.0	50.0	66.7	91.7	66.7	83.3 lics
63.2	50.0	66.7	84.9	66.7	78.9 ar
92.1	100.0	100.0	90.6	100.0	93.7 es
100.0	100.0	100.0	100.0	100.0	100.0
100.0	100.0	100.0	99.9	100.0	100.0 ates
100.0	100.0	100.0	100.0	100.0	100.0
100.0	100.0	100.0	100.0	100.0	100.0

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 and in which there are at least twenty-five battle-related deaths. It is adapted from the Uppsala Conflict Data Program (UCDP) and Center for the Study of Wars, International Peace Research Institute, Oslo (PRIO)'s "UCDP/PRIO Armed Conflict Dataset v.4–2009, 1946–2008."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 it was involved through active military support of a primary party to a conflict. We focus here only on involvement by governments; the nationality of non-state actors is not used to determine state involvement. 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 2007 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 2007 include the Democratic Republic of the Congo, as well as Algeria, Angola, Chad, Mali, Niger, 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 Thus, this indicator does not allow for monitoring of conflicts with fewer deaths.

The Index of African Governance uses the following variables to code this indicator:

- "Location:" "The name(s) of the country/countries whose government(s) have a primary claim to the issue in dispute"
- "SideA:" Country/countries that are the primary parties to the conflict (and always the government in internal conflicts)
- "SideB:" The opposition or second side to the conflict
- "SideA2nd" and "SideB2nd:" Countries that support SideA or SideB in the conflict³

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 www.pcr.uu.se/re search/UCDP/data and publications/datasets.htm (last accessed 22 July 2009).

² See UCDP and PRIO, "UCDP/PRIO Armed Conflict Dataset Codebook (Version 4-2009)," 1.

³ Ibid., 4.

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. For a useful introduction to this work, see Kristine Eck, A *Beginner's Guide to Conflict Data: Finding and Using the Right Dataset*, UCDP Paper #1 (Uppsala, 2005).

GOVERNMENT INVOLVEMENT IN ARMED CONFLICT

UCDP/PRIO Armed Conflict Dataset (Version 4-2009)

					SCAL	ED D	ATA:					
	RAW	DATA	<u>۱:</u>		Ranke	d			Scaled	Overall	0-100	
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007
Angola	3	0	0	2	50	1	1	44	50.0	100.0	100.0	66.7
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	0	39	48	45	1	66.7	66.7	66.7	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	2	0	1	1	45	1	100.0	100.0	66.7	100.0
Chad	2	2	2	2	39	48	45	44	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 (Brazzaville)	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Congo. Democratic Rep.	2	0	2	4	39	1	45	52	66.7	100.0	66.7	33.3
Cote d'Ivoire	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Diibouti	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Equatorial Guinea	2	0	0	0	20	1	1	1	66.7	100.0	100.0	100.0
Eflurea	2	0	5	5	59	50	50	50	0.0	100.0	10.0	10.0
Caban	0	4	5	5	53	53	53	53	0.0	33.3	16.7	10.7
Gambia	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Chana	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Gnana	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Guinea Cuinea Diagou	2	0	0	0	39	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	0	0	0	39	1	1	1	66.7	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	2	1	1	1	44	100.0	100.0	100.0	66.7
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	0	0	0	39	1	1	1	66.7	100.0	100.0	100.0
Niger	0	0	0	2	1	1	1	44	100.0	100.0	100.0	66.7
Nigeria	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Rwanda	3	0	0	0	50	1	1	1	50.0	100.0	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	39	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	39	1	1	1	66.7	100.0	100.0	100.0
Somalia	0	0	2	2	1	1	45	44	100.0	100.0	66.7	66.7
South Africa	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Sudan	2	3	2	2	30	52	45	44	66.7	50.0	66.7	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
Tanzailia	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
10go	2	2	2	2	E0	40	AF	44	50.0	66.7	66.7	66.7
Uganda Zambia	0	2	4	2	50	40	4	1	100.0	100.0	100.0	100.7
		0	0	0	1	1	1	4	100.0	100.0	100.0	100.0
Zimbabwe	1	0	U	U	38	1	1	1	83.3	100.0	100.0	100.0
Aigella	2	2	2	2	39	48	45	44	66.7	66.7	66.7	66.7
Egypt	0	0	0	U	1	1	1	1	100.0	100.0	100.0	100.0
Libya	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Morocco	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Tunisia	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: BATTLE-DEATHS IN ARMED CONFLICT

This indicator assesses the intensity of the violent conflicts in each country in each year 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.2, 2002–2006." Estimates for years not included in these datasets were compiled by our team directly from the UCDP Database.¹

The estimates presented here suggest the extent of violent conflict in Africa. In 2007, more than 4,500 people were killed in violent conflicts in Africa, with the highest numbers recorded in Somalia, the Sudan, the Democratic Republic of the Congo, Ethiopia, Algeria, Chad, and Uganda. Given the nature of such assessments, we expect readers to disagree with some of the estimates given here. We urge readers to review the material on each conflict in the UCDP Database, and continue to invite all constructive criticisms. Several difficult cases are discussed further below.

Readers of the Index of African Governance sometimes ask why we do not use local figures for this indicator, or why we do not conduct primary research, instead of relying on a secondary source. We rely on UCDP figures not because we lack access to primary data, but because, in this case, UCDP figures are more reliable than those we might compile ourselves. Estimates of deaths in conflict can be highly controversial, as recent debate over death estimates in Iraq has illustrated.² One key difficulty is that, for obvious reasons, reports from different sources (sometimes opposing parties to the conflict) often disagree. Even when ample primary data are available, assessing where the truth lies for each incidence of conflict is an enormous task. For this reason, we use figures compiled by the UCDP Database project, which focuses on this research area and has recognized expertise in providing such assessments.

In assessing the figures presented here, readers should also note that these figures cover only conflicts in which at least twenty-five people were killed. In addition, estimates for the year 2000 tend to be low estimates and less precise than those for the other years covered in the Index of African Governance. Estimates for 2000 include only battle deaths in conflicts in which a government was involved, not deaths in non-state conflict, which was not recorded in the UCDP Database prior to 2002.

Technical Notes

In using the "UCDP Battle-Deaths Dataset v.4.1, 2002–2005" and "UCDP Non-State Conflict Dataset v.2, 2002–2006," the Index of African Governance includes the "best estimate of the number of battle-related deaths ("bdBest") listed for the country or countries given under "Location."³ If multiple "Locations" are listed for a particular conflict, we divide the deaths among each Location equally (unless additional information is available), and we give estimates to the nearest whole number. This occurs only in three instances: the war between Eritrea and Ethiopia in 2000; the conflict in 2006 between the Dongiro and Turkana in Kenya and Ethiopia; and the conflict in 2005 between the Garre subclan of the Digil clan (Digil-Mirifle) and the Murule subclan of the Gugundabe clan (Hawiye) in Kenya and Somalia. More than 1,000 people were killed in the first conflict, 48 people in the second, and 63 in the third.

¹ The Database was last accessed 16 August 2009.

² For a summary of the debate, see Paul Reynolds, "Huge Gaps Between Iraq Death Estimates," BBC News (20 October 2006).

³ For further information on these datasets, see Joakim Kreutz, "UCDP Non-State Conflict Codebook (Version 2–2008)," 2008, and UCDP, "Codebook for the UCDP Battle-Deaths Dataset: Definitions, Sources and Methods for the UCDP Battle-Deaths Estimates (Version 4.1)," (1 December 2006). Both codebooks are available at www.pcr.uu.se/research/UCDP/data_and_publications/datasets.htm. Note that the UCDP has changed some codings in this latest version of the UCDP Non-State Conflict Dataset when compared to the last edition used in the 2008 Index of African Governance.

Figures for 2000 and 2007 and for battle deaths in 2006 are estimated using information provided in the UCDP Database, and figures for these years are thus given in italics in the corresponding table. Note that estimates of deaths in the UCDP Database and its various datasets sometimes conflict. (For instance, we note major discrepancies in the estimates for deaths in non-state conflict for Kenya and Ethiopia in 2006.) In all such cases, we use the estimates provided in the latest UCDP Battle-Deaths Dataset or UCDP Non-State Conflict Dataset, rather than the UCDP Database.

For most conflicts, the Database includes high and low estimates, along with best estimates and the best estimate is used. When best estimates are unavailable, we generally take the most conservative estimate, using the minimum estimate in the given range. Exceptions are made in several cases:

- In Ethiopia, for the Ogaden and Oromiya conflicts, we use the high estimates from the UCDP Database for battle deaths in 2006 and 2007 for the Oromiya conflict, and the high estimate for battle deaths in 2006 in the Ogaden conflict. The UCDP Database notes that most figures on these conflicts are provided by the Ogaden National Liberation Front (ONLF) and Oromo Liberation Front (OLF), and independent coverage is scarce, however, independent reports on other issues "oftentimes unconsciously corroborate information given" in such statements. In these cases, the lack of independent reports meant "low" and "best" estimates for battle deaths were 25 (the minimum for that category), while "high" estimates were the ONLF or OLF figure. (In the Ogaden conflict in 2007, additional information was available such that the low and best estimates were 146, based on these additional reports, and the high estimate was 734. We thus used the best estimate in this year.) The use of the "high" estimates here is consistent with the estimates used for Ethiopia in 2005 in the UCDP Battle-Deaths Dataset.
- In the conflict in Guinea in 2000, best estimates indicate between 150 and 450 battle deaths. We use the midpoint (300) as a rough estimate.

BATTLE DEATHS IN ARMED CONFLICT

UCDP Non-State Conflict Dataset (v.2), UCDP Battle Deaths Dataset (v.4.1), and UCDP Database

					SCAI	ED D	ATA:					
	RAW	DATA	\:		Ranke	d			Scaled	Overall	0-100	
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007
Angola	1000	0	0	25	49	1	1	43	68.6	100.0	100.0	99.2
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	285	137	50	49	49	47	45	68.6	91.0	95.7	98.4
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	45	0	1	1	44	1	100.0	100.0	98.6	100.0
Chad	25	100	1390	195	40	44	52	48	99.2	96.9	56.3	93.9
Comoros	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Congo (Brazzaville)	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Congo. Democratic Rep.	2500	0	40	660	53	1	43	51	21.5	100.0	98.7	79.3
Cote d'Ivoire	0	1/1	0	0	1	47	1	1	100.0	95.6	100.0	100.0
Diihauti	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Djibouti E sustanial Cuinas	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Equatorial Guinea	500	0	0	0	17	1	1	1	100.0	100.0	100.0	100.0
Eritrea	500	0	0	0	47	1	1	1	84.3	74.0	100.0	100.0
Ethiopia	550	918	1211	507	48	53	51	50	82.7	/1.2	62.0	84.1
Gabon	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Chana	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Guinaa	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Guinea-Bissau	300	0	0	0	46	1	1	1	90.6	100.0	100.0	100.0
Vanya	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Lasotha	0	100	53	0	1	44	45	1	100.0	96.9	98.3	100.0
Lesouio	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Liberia	61	0	0	0	45	1	1	1	98.1	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
Malı	0	0	0	39	1	1	1	44	100.0	100.0	100.0	98.8
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	81	1	1	1	46	100.0	100.0	100.0	97.5
Nigeria	0	100	25	0	1	44	42	1	100.0	96.9	99.2	100.0
Rwanda	25	0	0	0	40	1	1	1	99.2	100.0	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	124	0	44	1	46	1	98.3	100.0	96.1	100.0
Seychelles	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Sierra Leone	25	0	0	0	40	1	1	1	99.2	100.0	100.0	100.0
Somalia	0	339	1145	1589	1	50	50	53	100.0	89.4	64.0	50.1
South Africa	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Sudan	2150	531	1419	884	52	51	53	52	32.5	83.3	55.4	72.2
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	693	221	116	40	52	48	47	99.2	78.2	93.1	96.4
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
Algeria	1000	253	255	468	49	48	49	49	68.6	92.1	92.0	85.3
Egypt	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Libva	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Morocco	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Tunisia	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 resulted in at least twenty-five deaths. (For information on other human rights violations, readers should refer to the indicator on "Respect for Physical Integrity Rights," under the category of "Participation and Human Rights.")

Estimates for 2000, 2002, 2005, and 2006 are drawn from the "UCDP One-Sided Violence Dataset v.1.3, 1989–2006."¹ Estimates for 2007 were unavailable from this source and have been compiled by our team directly from the UCDP Database.²

Countries with the worst records of one-sided violence in the years covered in the Index include the Sudan, the Democratic Republic of the Congo, Burundi, Uganda, Chad, and Algeria. In 2007, incidents of one-sided violence involving more than twenty-five civilian fatalities were recorded in the Sudan, Ethiopia, Uganda, Kenya, Rwanda, Guinea, the Democratic Republic of the Congo, the Central African Republic, and Somalia.

Technical Notes

The Index of African Governance focuses on the following variables from the UCDP One-Sided Violence Dataset:

- "Location," which describes the country or countries in which the one-sided violence occurs. (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 national security is effectively poor if citizens are killed in one-sided violence, whether or not it is directly perpetrated by a government.)
- "Fat_best," which is the best estimate of civilian deaths in one-sided violence. Low and high estimates are also available in the Dataset. If multiple "locations" are listed for an episode of violence and no additional information is available on the location of the civilian deaths, we divide the number of fatalities among the "locations."
- The year of the observation.

Figures for 2007 are estimated using information provided in the UCDP Database, and figures for this year are thus given in italics in the data table.

If multiple "Locations" are listed for a particular conflict, we divide the deaths among each Location equally (unless additional information is available). We provide all estimates to the nearest whole number. For 2000–2006, Location is as given in the UCDP One-Sided Violence Dataset. For 2007, Location is assessed by our team based on the UCDP Database. In 2007, we thus classify violence by the "Rasta group," a Rwandan organization, as having two locations, Rwanda and the Democratic Republic of the Congo (DRC), due to its attacks in the DRC's South Kivu region.

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. See also Joakim Kreutz, "UCDP One-sided Violence Codebook (Version 1.3–September 4, 2008)," (2008), available at www.pcr.uu.se/research/UCDP/data and publications/datasets.htm (last accessed 16 August 2009).

² Last accessed 16 August 2009.
ONE-SIDED VIOLENCE

UCDP One-sided Violence Dataset (v.1.3) and UCDP Database

					SCAI	ED D	ATA:					
	RAW	DATA	\:		Ranke	Ranked				Overall	0-100	
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007
Angola	267	0	0	0	53	1	1	1	69.6	100.0	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	260	68	0	0	52	47	1	1	70.4	92.2	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	108	25	1	1	50	45	100.0	100.0	87.7	97.1
Chad	0	142	377	0	1	51	52	1	100.0	83.8	57.0	100.0
Comoros	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Congo (Brazzaville)	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Congo, Democratic Rep.	148	92	157	44	49	48	51	47	83.1	89.5	82.1	95.0
Cote d'Ivoire	58	0	0	0	47	1	1	1	93.4	100.0	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	0	26	225	1	1	48	52	100.0	100.0	97.0	74.3
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	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Guinea	0	0	0	45	1	1	1	48	100.0	100.0	100.0	94.9
Guinea-Bissau	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Kenya	0	0	0	66	1	1	1	50	100.0	100.0	100.0	92.5
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	32	0	0	1	46	1	1	100.0	96.4	100.0	100.0
Rwanda	0	92	0	55	1	48	1	49	100.0	89.5	100.0	93.7
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
Sevchelles	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Sierra Leone	36	0	0	0	46	1	1	1	95.9	100.0	100.0	100.0
Somalia	0	0	0	25	1	1	1	45	100.0	100.0	100.0	97.1
South Africa	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Sudan	238	760	652	355	51	53	53	53	72.9	13.3	25.7	59.5
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
Liganda	97	152	23	67	48	52	47	51	88.9	82.7	97.4	92.4
Zambia	0	0	0	0	-1	1	1	1	100.0	100.0	100.0	100.0
Zaiii0ia Zimbabwa	0	0	0	0	1	4	4	1	100.0	100.0	100.0	100.0
Algeria	222	0	37	0	50	1	10	1	74.7	100.0	05.9	100.0
Ecuret	0	124	0	0		E0	49	1	100.0	85.0	100.0	100.0
Egypt	0	0	0	0	1	30	1	1	100.0	100.0	100.0	100.0
Libya	0	0	0	0	- 1	4	4	1	100.0	100.0	100.0	100.0
Tunicia	0	U	U	0	1	1	1	1	100.0	100.0	100.0	100.0
i unista	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 AND ASYLUM SEEKERS FROM THE COUNTRY

Conflicts often involve the displacement of populations. This indicator and the next look at displacement, both within and outside of each country. This indicator considers the number of refugees and asylum seekers leaving a country, overall and 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 Statistical Online Population Database (www.unhcr.org/statistics/ populationdatabase).¹ The database includes "total refugees and people in refugee-like situations" and "asylum seekers (pending cases)." Figures on population are from the World Bank's World Development Indicators (WDI) 2009.²

Compared to other world regions, Africa has had the highest number of refugees and asylum seekers originating from its countries. Over the years of the Index, however, the total number of refugees and asylum seekers from countries in Africa has declined from about 4 million in 2000 and 2002 to 3.4 million in 2005, 3.3 million in 2006, and 3.1 million in 2007. (In sub-Saharan Africa alone, numbers have declined from 3.9 million in 2000 to 3.7 million in 2002 to 3.4 million in 2005 to 3.2 million in 2006, and to just under 3 million in 2007.)

Countries that have sent the highest number of refugees and asylum seekers abroad (in absolute terms) include the Sudan (highest in 2006 and 2007), the Democratic Republic of the Congo (highest in 2005), Burundi (highest in 2000 and 2002), and Somalia (among the top five sending countries in all years). In 2005 and 2006, more than 700,000 refugees and asylum seekers abroad were Sudanese. In 2007, the number declined to just over 540,000. Scaled by population, Somalia, Eritrea, Burundi, and Liberia show especially high refugee populations. In these countries, 7 to 10 percent of the population were refugees during at least one of these years.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 overall in particular in Angola, Burundi, Eritrea, Liberia, and Sierra Leone. Large increases between 2006 and 2007 were seen in the Central African Republic, Chad, Eritrea, Malawi, and Zimbabwe.

The UNHCR is the standard international source for data on refugees, but a number of other organizations and projects also follow refugee and asylum issues and provide other useful starting points for further research. In addition to the UNHCR, another source of cross-national data is the U.S. Committee on Refugees and Immigrants (USCRI)'s *World Refugee Survey*. A useful guide to resources 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 (OAU) 1969 Convention Governing the Specific Aspects of Refugee Problems in Africa.

¹ Last accessed 7 August 2009.

² Last accessed 7 May 2009.

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/.

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.

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 has 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.

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," 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 THE COUNTRY

UNHCR (and WDI population data)

RAW							SCALED DATA:					
Total	Numbe	r		Per 10	0,000 I	People		Scaled	Scaled Overall 0-100			
2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007	
Angola 439,253	224,179	208,063	186,953	3153.3	1392.8	1256.6	1103.1	69.4	86.5	87.8	89.3	
Benin 198	683	373	440	2.7	8.0	4.3	4.9	100.0	99.9	100.0	100.0	
Botswana 5	15	44	72	0.3	0.8	2.4	3.8	100.0	100.0	100.0	100.0	
Burkina Faso 377	818	579	822	3.2	5.9	4.0	5.6	100.0	99.9	100.0	99.9	
Burundi 571,714	446,974	402,032	382,784	8573.9	5687.6	4919.0	4505.5	16.7	44.8	52.2	56.3	
Cameroon 3,557	13,961	13,759	14,499	22.4	78.5	75.7	78.2	99.8	99.2	99.3	99.2	
Cape Verde 16	19	50	39	3.6	3.7	9.6	7.4	100.0	100.0	99.9	99.9	
Central African Republic 192	44,733	73,797	99,440	5.0	1067.2	1730.4	2289.4	100.0	89.6	83.2	77.8	
Chad 57,393	51,513	39,731	58,397	678.0	507.7	379.5	542.5	93.4	95.1	96.3	94.7	
Comoros 122	577	82	139	22.6	96.1	13.4	22.1	99.8	99.1	99.9	99.8	
Congo (Brazzaville) 31,726	32,612	26,502	25,816	990.6	903.4	718.3	685.4	90.4	91.2	93.0	93.3	
Congo, Democratic Rep. 391,563	486,891	433,642	406,669	772.5	828.9	715.1	651.7	92.5	92.0	93.1	93.7	
Cote d'Ivoire 1,460	24,694	32,697	29,659	8.6	132.9	172.9	153.9	99.9	98.7	98.3	98.5	
Djibouti 2,057	722	598	680	281.9	89.8	73.1	81.6	97.3	99.1	99.3	99.2	
Equatorial Guinea 551	536	493	438	128.0	110.7	99.5	86.3	98.8	98.9	99.0	99.2	
Eritrea 379,424	148,100	198,759	220,957	10298.4	3271.7	4236.0	4563.6	0.0	68.2	58.9	55.7	
Ethiopia 80,965	81,696	90,481	89,341	123.0	108.7	117.3	113.0	98.8	98.9	98.9	98.9	
Gabon 43	138	135	141	3.6	10.7	10.3	10.6	100.0	99.9	99.9	99.9	
Gambia 1,035	2,345	2,277	2,265	74.8	145.0	136.9	132.7	99.3	98.6	98.7	98.7	
Ghana 15,760	20,784	11,107	6,717	78.2	92.2	48.3	28.6	99.2	99.1	99.5	99.7	
Guinea 4.023	9.097	9.502	10.213	49.0	101.0	103.5	108.9	99.5	99.0	99.0	98.9	
Guinea-Bissau 1.573	1.300	1.312	1.290	114.8	81.4	79.7	76.1	98.9	99.2	99.2	99.3	
Kenva 3.237	16.084	6.435	9.276	10.4	45.2	17.6	24.7	99.9	99.6	99.8	99.8	
Lesotho 5	13	14	20	0.3	0.7	0.7	1.0	100.0	100.0	100.0	100.0	
Liberia 271 138	237 139	165 559	95.080	8828.8	6890.0	4625.9	2560 1	14.3	33.1	55.1	75.1	
Madagascar 69	222	285	289	0.4	12	1.5	1.5	100.0	100.0	100.0	100.0	
Malawi 40	3 950	159	8 287	0.4	29.9	1.0	59.5	100.0	99.7	100.0	99.4	
Mali 554	873	1 024	5 130	5.5	7.5	8.6	41.6	99.9	99.9	99.9	99.6	
Mauritania 31 540	33 055	35 237	34 125	1220.1	11/5 0	1157 7	1003 /	88.1	88.0	88.8	80.4	
Mouritius 46	45	102	05	3.0	3.6	8.1	7.5	100.0	100.0	00.0	00.4	
Mozambique 36	475	246	906	0.2	2.3	1.2	4.2	100.0	100.0	100.0	100.0	
Namibia 2 316	1 267	1 222	1 149	123.2	62.7	59.7	55.2	98.8	99.4	99.4	99.5	
Niger 746	1 246	1 201	1 104	6.7	9.4	9.4	7.8	90.0	99.9	99.4	99.9	
Nigeria 9 207	36 167	21 576	23 6/3	7.4	25.6	14.0	16.0	00.0	00.8	00.0	00.8	
Rwanda 142 967	116 144	101 551	20,040	1750.6	1257.0	1072.0	016.2	93.0	97.0	90.6	01.1	
Sao Tome and Principe	24	22	22	22.0	15.7	20.6	20.0	02.9	07.0	00.9	91.1	
Sanagal 11 000	10 501	16.405	16 901	110.1	15.7	125.0	105.4	99.0	99.0	99.0	99.0	
Senegal 11,999	10,521	10,405	10,001	42.4	69.4	135.9	77.6	90.9	99.1	90.7	90.7	
Seychenes 35	50	09	00	43.1	00.5	01.0	77.0	99.0	99.4	99.2	99.2	
Siella Leolle 409,665	40,427	40,497	30,793	9060.9	631.1	644.0	629.1	12.0	91.9	91.0	93.9	
Somalia 407,034	420,020	400,000	473,793	0911.0	5197.7	5752.7	5446.4	32.9	49.5	44.1	47.1	
South Africa 280	433	570	593	0.6	0.9	1.4	1.2	100.0	100.0	100.0	100.0	
Sudan 513,475	707,108	702,951	542,449	1539.7	1916.3	1864.2	1406.9	85.1	81.4	81.9	80.3	
Swaziland 20	18	27	91	1.9	1.6	2.4	7.9	100.0	100.0	100.0	99.9	
Tanzania 1,121	6,799	1,891	4,176	3.3	17.7	4.8	10.3	100.0	99.8	100.0	99.9	
Logo 5,295	28,586	33,921	23,821	98.0	939.1	529.2	362.0	99.1	90.9	94.9	90.5	
Uganua 33,478 Zambia	38,538	23,094	24,496	135.6	133.1	(1.2	79.2	98.7	98.7	99.3	99.2	
	632	270	692	2.1	5.5	2.3	5.8	100.0	99.9	100.0	99.9	
Zimbabwe 318	28,577	13,996	48,707	2.5	217.8	105.8	363.4	100.0	97.9	99.0	96.5	
Algeria 10,364	13,432	10,983	11,971	34.0	40.9	32.9	35.4	99.7	99.6	99.7	99.7	
Egypt 5,107	8,620	9,294	8,431	7.7	11.8	12.5	11.2	99.9	99.9	99.9	99.9	
Libya ^{1,161}	2,344	2,208	2,577	21.7	39.6	36.6	41.9	99.8	99.6	99.6	99.6	
Morocco 574	3,383	5,286	4,505	2.0	11.2	17.3	14.6	100.0	99.9	99.8	99.9	
Tunisia 1,569	3,494	3,195	2,853	16.4	34.8	31.5	27.9	99.8	99.7	99.7	99.7	

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) originating from 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 United Nations (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 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 United Nations High Commissioner for Refugee's (UNHCR) 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) 2009.⁴

In 2007, there were an estimated 12.2 million IDPs on the African continent—over four times as many IDPs as refugees and asylum seekers originating from countries in the region. About 4.7 million of these IDPs were in the Sudan. After the Sudan, the largest IDP populations were estimated to be in the Democratic Republic of the Congo (1.3 million), Uganda (1.3 million), Somalia (1 million), and Zimbabwe (920,000). Readers should also note that IDP populations are not well monitored in many countries and estimates may vary widely. As discussed below, for instance, some estimates of IDP populations in Nigeria and Algeria are also near 1 million, or more.

Scaled by population, 12.2 percent of the total Sudanese population was estimated to be internally displaced in 2007 (a decline from 15.4 percent in 2006); about 11.5 percent in Somalia; 6.9 percent in Zimbabwe; 4.5 percent in the Central African Republic; and 4.2 percent in Uganda.

Comparison of figures between 2006 and 2007 shows marked increases in the size of IDP populations particularly in Somalia, Zimbabwe, the Democratic Republic of the Congo, Kenya, Chad, the Central African Republic, and Ethiopia.⁵ In Somalia, the number of IDPs increased from 400,000 in 2006 to 1 million in 2007, or from 4.7 percent of the population in 2006 to 11.5 percent of the population in 2007. In Zimbabwe, about 350,000 more people were internally displaced, with IDP populations increasing from 4.3 to 6.9 percent of Zimbabweans.

¹ From "Introduction," para. 2, as cited on the website of the Internal Displacement Monitoring Centre (IDMC) at www.internal-displacement.org/8025708F004D404D/(httpPages)/CC32D8C34EF93C88802570F800517610?OpenDocument (last accessed 16 September 2009).

² See www.refugees.org, and www.internal-displacement.org/.

³ See www.reliefweb.int.

⁴ The data used in the 2009 Index were last accessed on 16 April 2009.

⁵ In terms of rates per population, the situation was worst in Somalia, Zimbabwe, the Central African Republic, Chad, Kenya, and the Democratic Republic of the Congo.

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) 2009.6

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.

Figures for most countries can be found clearly noted in these sources. Figures for several countries, however, require explanation, as below. In addition, if data were especially poor or we have major questions about available estimates, figures are given in italics in the table for this indicator.

For Algeria, there are no reliable figures. According to the IDMC's 19 December 2007 report, "Towards Durable Solutions for IDPs?" the European Union estimated one million IDPs in 2002, while others place the number at up to 1.5 million, and government sources suggest that all IDPs have returned home. The latest figures from the *World Refugee Survey* (2005), estimate 400,000–600,000 IDPs. Earlier editions of the *World Refugee Survey* give lower estimates but this revision, USCRI notes, reflects "new analysis rather than any net increase in displacement." Thus, we use this figure for earlier years as well. The 2007 IDMC report further notes that although "no data [are] currently publicly available to confirm it," it seems likely that IDP figures have remained high, "given the magnitude and the scope of the displacement situation." We, thus, roughly estimate 500,000 IDPs for all years of the Index, given the available information.

Our 2007 estimate for Angola is based on the IDMC's report, "Former IDPs share the common challenge of recovery and reconstruction," (12 December 2007), which notes that: "In November 2005 the government estimated that there were still some 62,000 IDPs in various provinces According to the government, all IDPs have since then returned, resettled or reintegrated, but since the end of 2005 there has been no monitoring of population movements, and the level of reintegration of the former internally displaced population has not been assessed (Interview with the Vice-Minister of MINARS, 11 October 2007)." Given the lack of monitoring since 2005, our 2006 and 2007 estimates are given in italics in the table for this indicator.

The Burundi estimate for end-2007 is from the OCHA Regional Office for Central and East Africa, *Displaced Populations Report*, issue 2 (July–December 2007).

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). The 2007 estimate is based on the OCHA Regional Office for Central and East Africa, *Displaced Populations Report*, issue 2 (July–December 2007).

⁶ Last accessed 7 May 2009.

For Congo (Brazzaville), the latest figure available as of April 2009 was from November 2006, and is given as the end-2007 estimate in the OCHA Regional Office for Central and East Africa, *Displaced Populations Report*, issue 2 (July–December 2007).

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)." Our estimate for end-2007 is from the OCHA Regional Office for Central and East Africa, *Displaced Populations Report*, issue 2 (July–December 2007), which also notes a "sharp increase [in IDPs between mid and end-2007] due to renewed conflict and military operations, especially in eastern DRC" (p. 3).

For Eritrea, our 2006 estimate is for December 2006 from the OCHA Regional Office for Central and East Africa, *Displaced Populations Report*, issue 1 (January–June 2007), 3. Our 2007 estimate is from the OCHA Regional Office for Central and East Africa, *Displaced Populations Report*, issue 2 (July–December 2007), which also notes a decline in the number of IDPs (990) between mid- and end-2007 due to ongoing government resettlement programs.

For Ethiopia in 2007, the OCHA Regional Office estimates 200,000–300,000 at year-end, noting that no IDP assessment has been conducted.

For Guinea, which is no longer actively monitored by the IDMC, 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," (2006), available at www.internal-displacement.org. The *World Refugee Survey* 2005 also notes that approximately 40,000 IDPs returned home in 2004. The IDMC, "Guinea-Summary of Outstanding Issues," published in September 2007, notes that a 2005 report estimated 19,000 IDPs, "the majority of whom have decided to remain in their host communities." UNHCR's "West Africa-Displaced Populations-August 2007," lists no IDPs for Guinea, also supporting our estimate of no IDPs for 2007.

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, for end-2007, the OCHA Regional Office report lists an "unconfirmed range of between 250,000–600,000," up from 250,000–365,000 in mid-2007, an increase attributed to inter-ethnic conflict in Mt. Elgon and Kuresoi and to post-election violence at the end of December. It also notes that "no comprehensive assessment of internal displacement has been done in Kenya since October 2003" and that the "range includes an estimated 200,000 recent, but also unassessed, displacement in Mt. Elgon, Molo, Nakuru, Rift Valley, Western, Nyanza, Nairobi and Coast province in late 2007." Our 2006 estimate is for December 2006 from the OCHA Regional Office for Central and East Africa, *Displaced Populations Report*, issue 1 (January-June 2007), 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 Internal Displacement Monitoring Centre (IDMC), "'I am a Refugee in My Own Country': Conflict-Induced Internal Displacement in Kenya,"

(19 December 2006).

For Liberia, the 2007 rough estimate of no IDPs is based on the IDP Database and the UNCHR's "West Africa-Displaced Populations-August 2007," which also lists 237,820 returned IDPs. IDMC's "Focus for IDP Returnees Movement from Conflict to Development," (27 July 2007) notes that "With the return of the remaining registered internally displaced people (IDPs) in December 2006, the process of resolving Liberia's internal displacement crisis was considered complete. More than 326,000 IDPs returned to their areas of origin and the 35 camps that had hosted them were officially closed in April 2006, formally marking the end of a 17-year period during which much of Liberia's population of three million had at some time been internally displaced." The report, however, notes several concerns with the figures.

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 IDMC, 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, data are very poor. In 2006, 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) noted 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. We thus take the lowest estimate here for April 2006, which is 500,000. The IDMC's 12 December 2008 report, "Unresolved Conflicts Cause Ongoing Displacement," notes continued lack of reliable statistics, listing an "undetermined number" of IDPs for 2008, giving a similar description to the above. We thus keep the rough estimate of 500,000 IDPs in 2007, based on the best available information.

For Rwanda, the number of IDPs is estimated at zero for 2002, 2005, 2006, and 2007, but it should be noted that important questions have been raised 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 1997–1998.⁷

⁷ See IDMC, "Ensuring Durable Solutions for Rwanda's Displaced People," (Geneva, 8 July 2005), 4.

For Senegal, 2000 and 2002 figures are from USCRI. Estimates for 2005, 2006, and 2007 are more problematic. The IDMC's 26 June 2008 report, "IDPs Remain Vulnerable as Obstacles to Return and Reintegration Persist," notes that reliable statistics "have always been scarce," and estimates the total number of IDPs as between 10,000 and 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. The UNHCR's "West Africa–Displaced Populations–August 2007" gives no figure for IDPs in Senegal.

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).

The IDMC's 26 June 2008 report highlights similar figures, also noting that "the US Department of State reported that approximately 60,000 remained internally displaced in the country at the end of 2007 (USDoS, 11 March 2008), while OCHA's Regional Office for West Africa suggests that from 40,000 to 70,000 IDPs remained (UN OCHA by email, 21 April 2008)."

Our rough 2007 estimate of 40,000 is the midpoint of the 10,000–70,000 range and is also consistent with the lower bound of this early 2008 estimate from UN OCHA. It is higher than our 2006 estimate of 32,400, even though IDMC also gave a range of 10,000–70,000 IDPs for that year as well.

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. For 2007, the UNHCR's "West Africa-Displaced Populations-August 2007," also lists no IDPs, and in April 2009, the IDMC was no longer actively monitoring Sierra Leone.

The Somalia estimate for end-2007 is from the OCHA Regional Office for Central and East Africa, *Displaced Populations Report*, issue 2 (July–December 2007).

For the Sudan, our 2007 estimate is based on the OCHA Regional Office report for July-December 2007 (issue 2), which notes an increase from 4,465,000 IDPs in mid-2007 to 4,715,000 IDPs by end-2007, due to renewed conflict, especially in Darfur. Our 2006 estimate is for December 2006 from the OCHA Regional Office for Central and East Africa, *Displaced Populations Report*, issue 1 (January-June 2007), 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)." Our 2006 estimate is 1,500 based on UNHCR, "West Africa–Displaced Populations–November 2006," and our 2007 estimate on UNHCR's "West Africa–Displaced Populations–August 2007," gives no estimate for IDPs.

For Uganda, our estimate for end-2007 is from the OCHA Regional Office for Central and East Africa, *Displaced Populations Report*, issue 2 (July–December 2007), and our 2006 estimate is for December 2006 from the OCHA Regional Office for Central and East Africa, *Displaced Populations Report*, issue 1 (January–June 2007), 3.

For Zimbabwe, for 2007, the IDMC's report, "Between 570,000 and 1,000,000 IDPs in Zimbabwe (Sep 2008)" estimates between 880,000 and 960,000, and our estimate is the midpoint of those figures. The estimate for 2000 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

USCRI's World Refugee Survey and IDMC's IDP Database

				SCAL	SCALED DATA:							
	Total	Numb	er		Per 10	0,000 I	People		Scaled	Overal	10-100	
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007
Angola	2,450,000	62,000	0	0	17587.9	385.2	0.0	0.0	5.7	97.9	100.0	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	117,000	100,000	100,000	8998.1	1488.8	1223.5	1177.0	51.8	92.0	93.4	93.7
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	200,000	147,000	197,000	0.0	4771.6	3446.8	4535.6	100.0	74.4	81.5	75.7
Chad	0	0	112,700	178,918	0.0	0.0	1076.6	1662.2	100.0	100.0	94.2	91.1
Comoros	0	0	0	0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
Congo (Brazzaville)	30,000	48,000	7,800	7,800	936.7	1329.7	211.4	207.1	95.0	92.9	98.9	98.9
Congo, Democratic Rep.	1,800,000	1,664,000	1,100,000	1,317,879	3551.1	2832.8	1813.9	2112.0	81.0	84.8	90.3	88.7
Cote d'Ivoire	0	500,000	750,000	709,380	0.0	2690.4	3965.2	3681.6	100.0	85.6	78.8	80.3
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	45,500	43,000	11,010	8414.1	1005.1	916.4	227.4	54.9	94.6	95.1	98.8
Ethiopia	280,000	200,000	200,000	250,000	425.5	266.1	259.2	316.1	97.7	98.6	98.6	98.3
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	19.000	19.000	0	731.5	211.0	206.9	0.0	96.1	98.9	98.9	100.0
Guinea-Bissau	50.000	0	0	0	3648.3	0.0	0.0	0.0	80.4	100.0	100.0	100.0
Kenva	100.000	381.900	275.000	425.000	320.0	1072.8	752.3	1132.4	98.3	94.3	96.0	93.9
Lesotho	0	0	0	0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
Liberia	20.000	13 000	5 500	0	651.2	377.7	153 7	0.0	96.5	98.0	99.2	100.0
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
Mouriting	0	0	0	0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
Mozambiquo	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	200.000	500.000	500.000	56 1	1/1 5	345.5	337.0	00.0	00.2	08.1	08.2
Rwanda	150,000	200,000	0	0	1834.6	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
Suo rome una rimerpe Senegal	5 000	22 400	32 400	40.000	18.4	100.3	268.4	322.3	00.0	00.0	08.6	08.3
Savahallas	0,000	22,400	0	40,000	40.4	0.0	200.4	0.0	100.0	100.0	100.0	100.0
Sierra Leone	750.000	500	0	0	16597.6	0.0	0.0	0.0	11 1	100.0	100.0	100.0
Siella Leolie	200,000	270.000	400.000	1 000 000	4050.0	9.0	0.0	11400.6	77.0	75.0	74.6	20.4
Solitalia Solitalia	300,000	370,000	400,000	1,000,000	4252.5	4514.2	4730.3	11499.6	11.2	100.0	100.0	30.4
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	5,335,000	5,790,200	4,715,000	11994.5	14458.1	15355.6	12229.1	35.7	22.5	17.7	34.5
Swaziland	0	0	0	0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
Tanzania	U	0	0	0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
logo	0	3,000	1,500	0	0.0	48.1	23.4	0.0	100.0	99.7	99.9	100.0
	500,000	1,740,500	1,600,000	1,310,000	2025.1	6012.7	5351.4	4237.3	89.1	67.8	/1.3	//.3
Zambia	0	0	0	0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
	10,000	570,000	570,000	920,000	79.0	4344.6	4309.0	6864.3	99.6	76.7	76.9	63.2
Algeria	500,000	500,000	500,000	500,000	1639.0	1521.9	1499.2	1477.0	91.2	91.8	92.0	92.1
Egypt	0	0	0	0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
Libya	0	0	0	0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
Morocco	0	0	0	0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
Tunisia	0	0	0	0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0

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. Scores are based on the Global Peace Index (GPI) 2008 and 2009, compiled by Economist Intelligence Unit (EIU) analysts, and supplemented with our own coding for seventeen countries not included in the Global Peace Index.¹

The GPI assesses this indicator on a scale of 1 to 5, where "1" is the lowest access and "5" the highest access. Given the actual range of scores assigned in Africa, we have rescaled this indicator slightly so that a "3" indicates the lowest access, as compared to other African countries; a "4" is mid-range access, and a "5" is high access. Details are provided below.

Scores for this indicator in the GPI are available only for a snapshot in time. In the absence of other data, the Index of African Governance uses this estimate for all Index years. This is the only source that we are aware of that currently provides estimates to assess "access" that are broadly comparable across countries.

Countries with the estimated highest "ease of access" to small arms and light weapons include 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 GPI 2009 provides the following description of its indicator of "ease of access to weapons of minor destruction:"

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 Index countries are available from the GPI 2009: Algeria, Angola, Botswana, Burkina Faso, Burundi, Cameroon, the Central African Republic, Chad, Congo (Brazzaville), the Democratic Republic of the Congo, Côte d'Ivoire, Egypt, Equatorial Guinea, Ethiopia, Gabon, Ghana, Kenya, Libya, Madagascar, Malawi, Mali, Mauritania, Morocco, Mozambique, Namibia, Nigeria, Rwanda, Senegal, Somalia, South Africa, the Sudan, Tanzania, Tunisia, Uganda, Zambia, and Zimbabwe. The previous, 2008 edition of the GPI includes all of these countries except Burundi.

In general, the scores for this indicator in the 2008 and 2009 editions of the GPI are consistent, but there are several changes. When figures have been changed, the Index of African Governance uses the 2008 GPI figures which refer to the time period more closely covered in our Index (i.e., through 2007). The 2009 GPI, by contrast, should reflect policy changes adopted in 2008 and the first half of 2009 before the GPI's publication. There are five changes in scores between the 2008 and 2009 GPIs, for which we use the 2008 GPI figures: Cameroon ("4" in 2008 GPI, "3" in 2009 GPI), Chad (4, 5), Equatorial Guinea (4, 3), Senegal (4, 3), and Zimbabwe (4, 5).

The GPI has assigned values ranging from 2 to 5 for African countries. We have rescaled this indicator slightly such that a score of "3" is the lowest possible in Africa. Thus, countries with scores of "2" in the 2008 or 2009 GPIs (Morocco, Rwanda, and Tunisia) are assigned scores of "3" for use in the Index of African Governance. We have rescaled this indicator for several reasons: First, our research into small arms in the region suggests that the data are insufficient

¹ See www.visionofhumanity.com/. The Global Peace Index refers to this indicator as "ease of access to weapons of minor destruction."

for a rating with five graduations; although we can reasonably rate access across African countries on a three-point scale ("high," "medium," and "low"), ratings on a five-point scale were much more problematic. In addition, given the range of values for Africa, a score of "2" would imply in our Index that small arms were far less accessible in these three countries than in any other country in the region. This appears inaccurate in terms of access *in practice*, although we note significant policy instruments enacted by these three countries to limit small arms.

For other countries not included in the GPI 2009, we provide scores following the GPI's scale. Our scores are given in italics in the corresponding data table. Given that none of these scores refer precisely to a given Index year, we treat all scores as estimates.

For Further Research

The 2008 edition of the Index of African Governance presented several additional sources of information on small arms and light weapons. Our researcher's report, "Small Arms in Africa: Legal Indicators," by Denise Garcia, provided 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. In the 2008 Index, we also presented available estimates on civilian firearms holdings in 2006 and compared them with our own Index scores. Estimates on firearms holdings were provided by Aaron Karp and the Small Arms Survey.²

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 (IISS)'s Armed Conflict Database. A selected list of other useful references includes:

- Control Arms (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 (London, 2004).
- Chandré Gound and Guy Lamb (eds.), *Hide and Seek: Taking Account of Small Arms in Southern Africa* (Pretoria, 2004), available at 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 Briefing Paper 107 (Oxford, 2007).

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

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

² Readers should refer to Karp's "Completing the Count: Civilian Firearms," in the Small Arms Survey 2007: Guns and the City (Geneva, 2007), 39–71.

EASE OF ACCESS TO SMALL ARMS AND LIGHT WEAPONS

Global Peace Index 2008 and 2009, Supplemented With Our Own Estimates

					SCAI	SCALED DATA:							
	RAW	DATA	\ :		Ranke	ed			Scaled	Overal	l 0-100		
-	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007	
Angola	3	3	3	3	1	1	1	1	100.0	100.0	100.0	100.0	
Benin	4	4	4	4	18	18	18	18	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	18	18	18	18	50.0	50.0	50.0	50.0	
Burundi	4	4	4	4	18	18	18	18	50.0	50.0	50.0	50.0	
Cameroon	4	4	4	4	18	18	18	18	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	43	43	43	43	0.0	0.0	0.0	0.0	
Chad	4	4	4	4	18	18	18	18	50.0	50.0	50.0	50.0	
Comoros	4	4	4	4	18	18	18	18	50.0	50.0	50.0	50.0	
Congo (Brazzaville)	4	4	4	4	18	18	18	18	50.0	50.0	50.0	50.0	
Congo, Democratic Rep.	5	5	5	5	43	43	43	43	0.0	0.0	0.0	0.0	
Cote d'Ivoire	4	4	4	4	18	18	18	18	50.0	50.0	50.0	50.0	
Djibouti	4	4	4	4	18	18	18	18	50.0	50.0	50.0	50.0	
Equatorial Guinea	4	4	4	4	18	18	18	18	50.0	50.0	50.0	50.0	
Eritrea	4	4	4	4	18	18	18	18	50.0	50.0	50.0	50.0	
Ethiopia	4	4	4	4	18	18	18	18	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	18	18	18	18	50.0	50.0	50.0	50.0	
Ghana	4	4	4	4	18	18	18	18	50.0	50.0	50.0	50.0	
Guinea	5	5	5	5	43	43	43	43	0.0	0.0	0.0	0.0	
Guinea-Bissau	5	5	5	5	43	43	43	43	0.0	0.0	0.0	0.0	
Kenya	5	5	5	5	43	43	43	43	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	43	43	43	43	0.0	0.0	0.0	0.0	
Madagascar	4	4	4	4	18	18	18	18	50.0	50.0	50.0	50.0	
Malawi	4	4	4	4	18	18	18	18	50.0	50.0	50.0	50.0	
Mali	4	4	4	4	18	18	18	18	50.0	50.0	50.0	50.0	
Mauritania	5	5	5	5	43	43	43	43	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	18	18	18	18	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	18	18	18	18	50.0	50.0	50.0	50.0	
Nigeria	5	5	5	5	43	43	43	43	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	18	18	18	18	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	43	43	43	43	0.0	0.0	0.0	0.0	
Somalia	5	5	5	5	43	43	43	43	0.0	0.0	0.0	0.0	
South Africa	4	4	4	4	18	18	18	18	50.0	50.0	50.0	50.0	
Sudan	5	5	5	5	43	43	43	43	0.0	0.0	0.0	0.0	
Swaziland	4	4	4	4	18	18	18	18	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	18	18	18	18	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	18	18	18	18	50.0	50.0	50.0	50.0	
Zimbabwe	4	4	4	4	18	18	18	18	50.0	50.0	50.0	50.0	
Algeria	3	3	3	3	1	1	1	1	100.0	100.0	100.0	100.0	
Egypt	3	3	3	3	1	1	1	1	100.0	100.0	100.0	100.0	
Libva	3	3	3	3	1	1	1	1	100.0	100.0	100.0	100.0	
Morocco	3	3	3	3	1	1	1	1	100.0	100.0	100.0	100.0	
Tunisia	3	3	3	3	1	1	1	1	100.0	100.0	100.0	100.0	

Category:Safety and SecuritySub-Category:Public Safety

INDICATOR: LEVEL OF VIOLENT CRIME (BASED ON HOMICIDE RATES)

The Index of African Governance continues to work toward better figures on crime—in particular, for homicides, assaults, thefts, and rapes. This year we present new data on homicide rates based on national statistics gathered by our Index researchers throughout Africa and on the United Nations Surveys on Crime Trends and the Operation of Criminal Justice Systems (7th, 8th, 9th, and 10th Surveys).¹ In addition, we draw on the approach and information provided by the Global Peace Index on its indicator of homicides.

The collection of crime data for Africa is especially difficult. In many cases statistics are not available, and in other cases, they appear highly unreliable. The best international source of data on crime, the UN Crime Trends Surveys, provide information in its latest round of surveys on homicides for only four African countries: Algeria, Egypt, Mauritius, and Morocco. Earlier rounds of the UN Crime Trends Surveys provide information on just ten additional African countries for at least one year between 2000 and 2004. This year, our in-country Index research adds significantly to this store of information with new data on crime in *twenty-three* sub-Saharan African countries. Although we cannot ensure that all of these figures are collected in comparable ways, the available data presented in this note provide a basis for further research. Additional statistics collected through our research will be made available on our website.

The available data suggest that the worst homicide rates in the region are in the Central African Republic, Chad, the Democratic Republic of the Congo, Lesotho, Somalia, South Africa, and the Sudan. It should be noted that rates of violent crime and property crime do not necessarily go together, especially in less-developed countries. Thus, readers should be cautious in using these scores as indicators of crime in general, rather than as indicators of levels of homicide. In future, we hope to include other indicators of crime, such as theft, into our Index of African Governance. However, this will depend on the quality of information that can be obtained through our research.

In addition, users of the data should note several methodological difficulties in the measurement of crime. For one, an increase in *reported* crimes may not necessarily reflect an increase in the occurrence of crime, but simply better policing and reporting.² In addition, weak law enforcement capacity or lack of public trust in the police may mean that citizens are unlikely to report crime to the police, and instead deal with crime on their own. Further, cross-national comparisons of crime statistics are complicated by varying definitions and methods of reporting.

Given such difficulties, our indicator of crime is based on a four-point scale adapted from the approach used in the Global Peace Index. The assigning of scores takes into account both reported rates (when available) and other information on each country. The Global Peace Index assigns scores 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= 20 and greater.³

¹ The 10th Survey covers 2005 to 2006, the 9th Survey covers 2003 to 2004, the 8th covers 2001 to 2002, and the 7th covers 1998 to 2000. The 10th Survey was collected during 2008 and, as of 20 May 2009, data collected as of 10 December 2008 were made available.

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*, LXXIII (2004), 155–184; Karen-Michelle Collins, "Negligent Homicide/Manslaughter (Involuntary)," *International Encyclopedia of Justice Studies* (December 2002), available at www.iejs.com/Law/Criminal_Law/Negligent_Homicide-Manslaughter.htm (last accessed 20 July 2008).

³ 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." 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.

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Given the quality of information available for Africa, we have rescaled the available data for use in the calculation of the Index of African Governance based on a four-point (2–5) scale, such that a score of "2" indicates a relatively low rate of less than 5.9 homicides per 100,000 people; "3" indicates a mid-low rate of 6–9.9; "4" indicates a mid-high rate of 10–19.9; and "5" indicates a high rate greater than 20 per 100,000.

Our scores for this indicator are based either directly on rates of intentional homicide reported in the UN Surveys on Crime Trends and the Operation of Criminal Justice Systems (7th, 8th, 9th, and 10th Surveys) and in national statistics gathered by our in-country Index researchers; or, for countries in which such rates were not available or appear unreliable, on Global Peace Index scores and our own estimates.⁴ In assessing scores, we reviewed the following key qualitative sources: "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.

Given the limits of the available data, only one score for crime is available for each country. All scores are thus estimates for the years covered in the Index and are given in italics in the table for this indicator.

Local Data

The table below summarizes the results of our research on reported homicides. It lists all available information on homicide rates since 2000. In information from the UN Crime Trends Surveys, "homicide" refers to "reported intentional homicides, completed" according to information from the police. Intentional homicide "may be understood to mean death deliberately inflicted on a person by another person, including infanticide" (10th Survey, p. 7). It does not include *attempted* intentional homicide or non-intentional homicide (which includes the crime of manslaughter). In the table below, we report both the absolute number of homicides reported in the UN Surveys, and the rate per 100,000 inhabitants, also as reported in the UN Surveys.

For figures from other sources, we follow the same definitions, where possible. Our in-country research focused on collecting crime statistics for 2006–2007 (in our 2008 round of Index data collection) and for 2007–2008 (in our 2009 round of Index data collection). We report here only figures that we judge to be reasonably reliable and include notes about measurement, where applicable.⁵ We give the absolute number as reported to us and the rates per 100,000 people based on population figures from the World Bank's World Development Indicators (WDI) 2009.⁶ It should be underscored that, for many countries, information is insufficient at this time to allow us to be certain that comparable definitions are employed. Thus, figures reported here are preliminary estimates and should be used with special care.

Despite our best efforts, reported homicide rates are simply unavailable for twenty-two African countries, as indicated in the table. In these cases, neither research by the UNODC, nor our team, were able to secure reasonably reliable national statistics on crime.

In addition, we report for each country our 2008 Ibrahim Index of African Governance score (based on the 2008 Global Peace Index and our own estimates [in bold]), and the 2009 Global Peace Index score. Global Peace Index scores are reportedly based both on the UN Crime Trends Surveys, where available, as well as on expert assessment.

Finally, we provide in the table our 2009 Index of African Governance final score for the homicide indicator, based on a review of the data listed and the various sources cited above. A final column of "Special Notes" gives details on any scores that are inconsistent with reported rates.

⁴ The 10th Survey covers 2005 to 2006, the 9th Survey covers 2003 to 2004, the 8th covers 2001 to 2002, and the 7th covers 1998 to 2000. The 10th Survey was collected during 2008 and, as of 20 May 2009, data collected as of 10 December 2008 were made available.

⁵ For instance, in a few cases, reported figures were highly inconsistent with UNODC estimates and information about the source of the figures was so incomplete that it was not possible to assess at all their reliability.

⁶ Last accessed 7 May 2009. Population figures for 2008 are not given in this source. Figures for 2007 are used as estimates.

	Homicide Rates Using UN and Self-Collected Data, 2000-present											
	Reported Homicides ~ Available Data by Year	Special Notes										
Algeria				1		2	Score is consistent with most recent available rates, 2004-06.					
	650 or 2.04 per 100,000 (2003)	UN 9th Survey			2							
	449 or 1.43 per 100,000 (2004)				1							
	204 or 0.62 per 100,000 (2005)	UN 10th Survey			1							
	214 or 0.64 per 100,000 (2006)				1							
Angola	Not available		3	3		3						
Benin	Not available		2			2						
Botswana			4	4		4						
	280 or 14.88 per 100,000 (2007)	Botswana Police Service			4							
	281 or 14.94 per 100,000 (2008)				4							
Burkina Faso			2	2		2	Score is consistent with 2008 rate. 2007 rate suggests a lower score.					
	132 or 0.89 per 100,000 (2007)	Police Judiciaire/ État-major de la Gendarmerie			1							
	398 or 2.69 per 100,000 (2008)				2							
Burundi			3	4		4	Score is inconsistent with 2005-08 rates, but we have reason to believe there is significant underreporting and use the 2009 GPI score.					
	120 or 1.53 per 100,000 (2005),	Police; Police Judiciare			1							
	236 or 2.89 per 100,000 (2006) ;				2							
	335 or 3.94 per 100,000 (2007),				2							
	263 or 3.10 per 100,000 (2008)				2							

Cameroon			3	3		3	
	Unavailable (2004/2005). Available data on crime convictions give a figure of 1658 or 9.32 per 100,000 in 2004/2005 for felonies punishable by 10 years imprisonment to death, which may include homicides, assaults, and some rape.	Ministry of Justice					
Cape Verde	Not available		1			2	
Central African Republic	Not available		5	5		5	
Chad	Not available		5	5		5	
Comoros			1			2	
	4 or 0.63 per 100,000 (2008)	Secrétariat du parquet de la République			1		
Congo	Not available		4	4		4	
Congo, Democratic Republic	Not available		5	5		5	
Côte d'Ivoire			3	3		4	Score is inconsistent with the available 2000 rate, but we suspect significant underreporting.
	651 or 4.07 per 100,000 (2000)	UN 7th Survey			2		
Djibouti			2			2	
	Voluntary homicide ("homicide volontaire"): 7 or 0.90 per 100,000 (2003)	Direction Générale de la Police Nationale 2008			1		
	17 or 2.15 per 100,000 (2004)				2		
	21 or 2.61 per 100,000 (2005)				2		
	2 or 0.24 per 100,000 (2006)				1		
	6 or 0.72 per 100,000 (2007)				1		

Egypt				1		2	
	528 or 0.72 per 100,000 (2005)	UN 10th Survey			1		
Equatorial Guinea	Not available		2	2		2	
Eritrea	Not available		2			2	
Ethiopia	Not available		2	2		2	
Gabon	Not available		1	1		2	
Gambia			2			2	Only rates of conviction are available and those should be lower than reported crime rates.
	Only rates of conviction are available: 6 or 0.35 per 100,000 (2007)	Court records			at least 1		
	6 or 0.35 per 100,000 (2008)				at least 1		
Ghana			2	2		2	Score is inconsistent with available 2007 and 2008 rates, but we suspect some underreporting.
	"Murder" (not including manslaughter): 399 or 1.70 per 100,000 (2007)	The Ghana Police (Criminal Investigation Department)			1		
	430 or 1.83 per 100,000 (2008)				1		
Guinea	Not available		2			2	
Guinea- Bissau	Not available		2			2	
Kenya			4	2		3	The GPI score changed from 4 to 2 between 2008 and 2009. Neither score is consistent with available rates. We thus assign a score based on available rates (which is also at the midpoint of the GPI scores).
	2,098 or 6.21 per 100,000 (2003)	Kenya Police Department from Kenya National Bureau of Statistics (KNBS) 2008			3		
	(2004)				3		

	2,313 or 6.50 per 100,000 (2005)				3		
	2,090 or 5.72 per 100,000 (2006)				2		
	1,912 or 5.12 per 100,000 (2007)				2		
Lesotho			4			5	We assign a revised score for 2009 based on newly available rates.
	872 or 43.47 per 100,000 (2007)	Police Headquarters			5		
	766 or 38.19 per 100,000 (2008)				5		
Liberia			4			4	Score is inconsistent with 2007-08 rates, but we have reason to believe there is significant underreporting.
	102 or 2.75 per 100,000 (2007)	Liberia National Police			2		
	176 or 4.74 per 100,000 (2008)				2		
Libya	Not available			1		2	
Madagascar			2	2		2	
	Convicted: 408 or 2.19 per 100,000 (2005)	Judiciary Policy Headquarters and the National Gendermerie			at least 2		
	435 2.27 per 100,000 (2006)				at least 2		
Malawi			2	2		2	
	445 or 3.20 per 100,000 (2007)	Malawi Police Service			2		
	398 or 2.86 per 100,000 (2008)				2		
Mali			3	3		3	
	As reported to Police Judiciare only (not including reports to the Gendermerie): 56 or 0.45 per 100,000, of which 11 were infanticides (2007)	Direction de la Police Judiciare			at least 1		
	7 or 0.6 per 100,00 (including infanticide) (2008)				at least 1		
Mauritania	Not available		3	3		3	

Mauritius			2			2	
	26 or 2.19 per 100,000 (2000)	UN 7th Survey			2		
	36 or 2.95 per 100,000 (2003)	UN 9th Survey			2		
	31 or 2.56 per 100,000 (2004)				2		
	37 or 2.98 per 100,00 (2005)	UN 10th Survey			2		
	50 or 4.00 per 100,000 (2006)				2		
Morocco				1		2	
	129 or 0.44 per 100,000 (2001)	UN 8th Survey			1		
	143 or 0.48 per 100,000 (2002)				1		
	154 or 0.50 per 100,000 (2003)	UN 9th Survey			1		
	145 or 0.48 per 100,000 (2004)				1		
	160 or 0.52 per 100,000 (2005)	UN 10th Survey			1		
	162 or 0.53 per 100,000 (2006)				1		
Mozambique	Not available		2	2		2	
Namibia			3	3		3	We follow the UN reported rates and 2009 GPI, however a higher score of "4" is consistent with our newly available rates for 2007 and 2008. More information is needed on the sharp increase in these rates.
	123 or 6.33 per 100,000 (2001)	UN 8th Survey			3		
	126 or 6.35 per 100,000 (2002)				3		
	Murder: 323 or 15.83 per 100,000 (2007)	Namibian Police			4		
	340 or 15.23 per 100,000 (2008)				4		
Niger	Not available		2			2	
Nigeria	Not available		4	4		4	

Rwanda			1	1		2	
	"Génocide": 71 or 0.76 per 100,000 (2005),	National Police			1		
	46 or 0.49 per 100,000 (2006)				1		
São Tomé and Príncipe			1			2	We assign a revised score of "2" based on the average of newly available rates for 2007 and 2008.
	4 or 2.53 per 100,000 (2007)	National Police			2		
	14 or 8.86 per 100,000 (2008)				3		
Senegal	Not available		2	2		2	
Seychelles			3			3	We assign a revised score of "3" based on the average of newly available rates for 2007 and 2008.
	6 or 7.39 per 100,000 (2000)	UN 7th Survey			3		
	10 or 11.76 per 100,000 (2007)	Annual police returns			4		
	6 or 7.06 per 100,000 (2008)				3		
Sierra Leone			2			3	We assign a revised score of "3" based on other new information. Score is inconsistent with available 2007- 08 rates, but we suspect significant underreporting.
	"Homicide" (which includes murder, manslaughter, and suicide): 134 or 2.29 per 100,000 (2007)	Police Headquarters			2		
	140 or 2.39 per 100,000 (2008)				2		
Somalia	Not available		5	5		5	

South Africa			5	5		5	
	21,995 or 51.39 per 100,000 (2000)	UN 7th Survey			5		
	21,405 or 47.77 per 100,000 (2001)	UN 8th Survey			5		
	21,553 or 47.53 per 100,000 (2002)				5		
	Homicides: 19,202 or 40.13 per 100,000 (2006-2007)	South African Police Service 2009			5		
	18,487 or 38.63 per 100,000 (2007-2008)				5		
Sudan	Not available		5	5		5	
Swaziland			4			4	Consistent with latest available rates, 2002-03.
	926 or 88.61 per 100,000 (2000)	UN 7th Survey			5		
	135 or 13.05 per 100,000 (2002)	UN 9th Survey			4		
	141 or 13.64 per 100,000 (2003)				4		
Tanzania			3	3		3	Consistent with latest available rates and with 2009 GPI score.
	Recorded intentional homicide, completed: 2,355 or 7.52 per 100,000 (1997)	6th Survey			3		
	2275 or 5.91 per 100,000 (2005),	Tanzania Police Force 2008			2 (almost 3)		
	2612 or 6.62 per 100,000 (2006)				3		
	3,583 or 8.62 per 100,000 (2007)	Police Force 2009			3		
Togo	Not available		3			3	
Tunisia				1		2	
	113 or 1.18 per 100,000 (2000)	UN 7th Survey			1		
	122 or 1.26 per 100,000 (2001)	UN 8th Survey			1		
	119 or 1.22 per 100,000 (2002)				1		

Uganda			3	3		3	
	1,919 or 9.45 per 100,000 (1997)	UN 6th Survey			3		
	2,136 or 7.95 per 100,000 (2003)	UN 9th Survey			3		
	2,049 or 7.89 per 100,000 (2004)				3		
	2492 or 8.61 per 100,000 (2005)	Uganda Bureau of Statistics (UBOS) 2007			3		
	2696 or 9.02 per 100,000 (2006)				3		
Zambia			3	3		3	Consistent with UN reported rates and 2009 GPI score, however a lower score of "1" is consistent with our newly available rates for 2007 and 2008. More information is needed on the sharp decline in these reported rates.
	797 or 7.89 per 100,000 (2000)	UN 7th Survey			3		
	140 or 1.18 per 100,000 (2007)	Police Service Headquarters			1		
	135 or 1.13 per 100,000 (2008)				1		
Zimbabwe			3	3		3	
	912 or 7.24 per 100,000 (2000)	UN 7th Survey			3		
	1,028 or 7.99 per 100,000 (2003)	UN 9th Survey			3		
	1,092 or 8.54 per 100,000 (2004)				3		

Safety and Security

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* (New York, 2005).⁷ The UN Surveys are intended to collect data directly from all countries. 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."⁸

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 1999.⁹ In 2006, Interpol resolved to discontinue the production of crime statistics, citing problems with the accuracy and reliability of the data.¹⁰

The Index of African Governance team conducted extensive research into sources of data on crime. A report of our research in 2007 was included in the 2007 Ibrahim Index of African Governance as, "Researcher's Report: Crime Data," by Melesse Tashu.

In addition to those sources noted above, other key sources researched include the International Crime Victims Survey, statistics from Interpol, survey questions on experience with crime from Afrobarometer studies, and WHO's *World Report on Violence and Health* (2002).¹¹ 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.

⁷ Available at www.unodc.org/pdf/African_report.pdf (last accessed 3 August 2008).

⁸ Available at 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 www.unodc.org/art/docs/english_prog_action.pdf (last accessed 3 August 2008).

⁹ 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.

¹⁰ Interpol-General Assembly, "75th Interpol General Assembly-Rio de Janeiro, Brazil, 19-22 September 2006" (Resolution No AG-2006-RES-19).

¹¹ 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 www.who.int/violence_injury_prevention/violence/world_report/en/full_en.pdf (last accessed 3 August 2008).

LEVEL OF VIOLENT CRIME (HOMICIDE RATES)

UN Crime Trends Surveys, National Statistics Collected by our Researchers, Global Peace Index 2008 & 2009, and Our Estimates SCALED DATA:

	R AW/		١.		Ranke	d	11111.		Scale	d Overal	10-100	
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007
Angola	3	3	3	3	2000	2005	2000	2007	66.7	66.7	66.7	66.7
Benin	2	2	2	2	1	1	1	1	100.0	100.0	100.0	100.0
Botswana	4	4	4	4	40	40	40	40	33.3	33.3	33.3	33.3
Burkina Faso	2	2	2	2	1	1	1	1	100.0	100.0	100.0	100.0
Durkina 1 aso	4	4	4	4	40	40	40	40	33.3	33.3	33.3	33.3
Cameroon	3	3	3	3	27	27	27	27	66.7	66.7	66.7	66.7
Cane Verde	2	2	2	2	1	1	1	1	100.0	100.0	100.0	100.0
Central African Republic	5	5	5	5	47	17	47	47	0.0	0.0	0.0	0.0
Chad	5	5	5	5	47	47	47	47	0.0	0.0	0.0	0.0
Comoros	2	2	2	2			1	1	100.0	100.0	100.0	100.0
Congo (Brazzaville)	2	2	2	2	1	1	10	1	100.0	22.2	22.2	22.2
Congo Democratic Ren	4	4	4	4	40	40	40	40	33.3	33.3	33.3	33.3
Coto d'Ivoiro	5	5	5	5	47	47	47	47	0.0	0.0	0.0	0.0
	4	4	4	4	40	40	40	40	33.3	33.3	33.3	33.3
Djibouti	2	2	2	2	1	1	1	1	100.0	100.0	100.0	100.0
Equatorial Guinea	2	2	2	2	1	1	1	1	100.0	100.0	100.0	100.0
Eritrea	2	2	2	2	1	1	1	1	100.0	100.0	100.0	100.0
Ethiopia	2	2	2	2	1	1	1	1	100.0	100.0	100.0	100.0
Gabon	2	2	2	2	1	1	1	1	100.0	100.0	100.0	100.0
Gambia	2	2	2	2	1	1	1	1	100.0	100.0	100.0	100.0
Ghana	2	2	2	2	1	1	1	1	100.0	100.0	100.0	100.0
Guinea	2	2	2	2	1	1	1	1	100.0	100.0	100.0	100.0
Guinea-Bissau	2	2	2	2	1	1	1	1	100.0	100.0	100.0	100.0
Kenya	3	3	3	3	27	27	27	27	66.7	66.7	66.7	66.7
Lesotho	5	5	5	5	47	47	47	47	0.0	0.0	0.0	0.0
Liberia	4	4	4	4	40	40	40	40	33.3	33.3	33.3	33.3
Madagascar	2	2	2	2	1	1	1	1	100.0	100.0	100.0	100.0
Malawi	2	2	2	2	1	1	1	1	100.0	100.0	100.0	100.0
Mali	3	3	3	3	27	27	27	27	66.7	66.7	66.7	66.7
Mauritania	3	3	3	3	27	27	27	27	66.7	66.7	66.7	66.7
Mauritius	2	2	2	2	1	1	1	1	100.0	100.0	100.0	100.0
Mozambique	2	2	2	2	1	1	1	1	100.0	100.0	100.0	100.0
Namibia	3	3	3	3	27	27	27	27	66.7	66.7	66.7	66.7
Niger	2	2	2	2	1	1	1	1	100.0	100.0	100.0	100.0
Nigeria	4	4	4	4	40	40	40	40	33.3	33.3	33.3	33.3
Rwanda	2	2	2	2	1	1	1	1	100.0	100.0	100.0	100.0
Sao Tome and Principe	2	2	2	2	1	1	1	1	100.0	100.0	100.0	100.0
Senegal	2	2	2	2	1	1	1	1	100.0	100.0	100.0	100.0
Seychelles	3	3	3	3	27	27	27	27	66.7	66.7	66.7	66.7
Sierra Leone	3	3	3	3	27	27	27	27	66.7	66.7	66.7	66.7
Somalia	5	5	5	5	47	47	47	47	0.0	0.0	0.0	0.0
South Africa	5	5	5	5	47	47	47	47	0.0	0.0	0.0	0.0
Sudan	5	5	5	5	47	47	47	47	0.0	0.0	0.0	0.0
Swaziland	4	4	4	4	40	40	40	40	33.3	33.3	33.3	33.3
Tanzania	3	3	3	3	27	27	27	27	66.7	66.7	66.7	66.7
Τοσο	3	3	3	3	27	27	27	27	66.7	66.7	66.7	66.7
Uganda	.3	3	3	3	27	27	27	27	66.7	66.7	66.7	66.7
7ambia	3	3	3	3	27	27	27	27	66.7	66.7	66 7	66 7
Zimbahwa	3	3	3	3	27	27	27	27	66.7	66.7	66.7	66.7
Algeria	2	2	2	2	1	1	1	1	100.0	100.0	100.0	100.0
Fount	2	2	2	2	1	1	4	1	100.0	100.0	100.0	100.0
n gypt	2	2	2	2	1	1	1	1	100.0	100.0	100.0	100.0
Libya	2	2	2	2	1	1	1	1	100.0	100.0	100.0	100.0
Tunicia	2	2	2	2	7	1	1	1	100.0	100.0	100.0	100.0
i uilisia	2	2	2	2	7	1	1	1	100.0	100.0	100.0	100.0

RESEARCHER'S REPORT:

GENDER-BASED VIOLENCE—APPROACHES TO MEASUREMENT

Adibeli Nduka-Agwu

This "Researcher's Report" was prepared as background for the 2009 Index of African Governance. It is the summary of a longer working paper, which will be published later on the Index website.

Overview

This paper looks at gender-based violence (GBV) in the context of sub-Saharan Africa. While acknowledging that great progress has been made in systematically gathering data on GBV, both globally and within the African context, this study concludes that presently, data on GBV is still too scarce, fragmented, and methodologically incoherent to allow for comprehensive and meaningful comparisons of the phenomenon across Africa. It further appears that it is most common and feasible to measure GBV if the concept is limited to physical, sexual, or psychological forms of violence in the domestic realm (rather than to broader definitions of GBV), as measurements in this area are the most developed at this point.

Background

GBV is among the most common and systematic global human rights abuses. It is a form of discrimination that is linked to power asymmetries and structural inequalities between men and women, reflecting and reinforcing social norms and expectations about gender roles. Such violence perpetuates existing gender hierarchies and inequalities. GBV constitutes a phenomenon that occurs across cultures, economic strata, and political systems with severe economic effects on family and communal levels.

Women have been the focus in GBV at the policy and measurement levels. Therein, great emphasis has been placed upon the physical forms of GBV and their health implications. The victimization that occurs as a consequence of physical (or sexual) violence against women directly affects women's health and has implications for future illnesses. Such violence may result in physical injuries or death and commonly leads to "functional disorders" and psychological consequences, such as lowered self-esteem, and mental health problems, such as depression, phobias, and alcohol or substance abuse.¹ Structural manifestations of GBV are much harder to trace, but they are associated with the curtailment or suppression of women's human rights and a perpetuation of gender-based discrimination and inequality.

Poverty is a major structural risk factor for GBV, which makes the subject particularly relevant for the African context. According to the United Nations Population Fund (UNFPA), the number of people living in poverty in African countries has increased by 82 million, of whom 70 percent are women. The agency attributes female poverty largely to unequal power relations, resulting for instance in discriminatory inheritance rights and uneven access to resources. Poverty in turn raises women's vulnerability to other manifestations of violence, since their economic situation forces them to live in dangerous and volatile environments.²

In 2002, the Fifth Conference of the Network of African Women Ministers and Parliamentarians resolved to consider gender-based violence as a development priority in its impact on African women and society.³ A year later, the Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in African was passed successfully. It calls on member states to "combat all forms of discrimination against women through appropriate legislative, institutional

¹ M. Ellsberg and L. Heise, "Researching Violence Against women – A Practical Guide for researchers and activists," (Washington, D.C., 2005), 18–22.

² UNFPA, "Combating Gender-Based Violence: A Key to Achieving the MDGS," (2005), 8

³ Ibid., 6.

and other measures."⁴ These measures are to include a constitutional guarantee of the equality between men and women, a reform of any legislative or regulatory discrimination and an inclusion of gender perspectives in all policy decision, legislation, development programs, and other areas of life. Civil society actors have intensified their lobbying efforts against effective prevention and response to GBV over the past decades. The Kampala Declaration of September 2003 assembled NGOs, civil society groups, and UN agencies from ten countries in the Horn, Eastern, and Southern Africa and called for a prevention of GBV in Africa.⁵

Definitions of GBV

There is no single, universally accepted definition of GBV, and interpretations vary depending on organization, subject area, and context. The common conflation of the term "gender" with "women" extends to GBV. Often the term is interpreted as referring exclusively to violence (primarily physical) exercised upon women and girls by a male perpetrator. Looking exclusively at violence against women (commonly known as "VAW") and excluding men is generally justified because violence against men rarely results from power imbalances and structural relationships of inequality between the two sexes. Moreover, the literature generally acknowledges that women are disproportionately affected by forms of GBV. Thus, the United Nations defined the phenomenon as "a manifestation of historically unequal power relations between men and women, which have led to domination over and discrimination against women by men and to the prevention of the full advancement of women."⁶

Even where definitions do not explicitly limit the term to women and girls, examples, case-studies, and measurements are nevertheless frequently restricted to women and girls. Such definitions look particularly to measures such as murder, rape, sexual abuse, and above all, domestic violence—the most common form of GBV—frequently exercised (and measured) as intimate partner violence.⁷ Multi-country studies estimate that between 10 and 60 percent of women who have ever been in an intimate relationship or married have experienced at least one incidence of physical violence by their partner.⁸

Another interpretation of GBV attempts to look beyond physical forms of violence inflicted upon women and to include measurements of psychological and structural forms of GBV. Such an approach seeks to integrate into their measures of GBV the social structures and conventions that unfairly limit women's social or professional opportunities based on women's gender roles. This could also include practices such as "wife heritance," where a widow is made to marry a male relative of a deceased spouse to protect family assets, thus preventing women from legally inheriting property regardless of national legislation. Structural violence also includes the dimension of the state. Despite international legal and human rights conventions, to which many of the African states are signatories, patriarchal customary law frequently undermines women's rights, or state laws may provide legal loop holes allowing rapists to avoid imprisonment if they agree to marry their victim. Structural violence against women further extends to policy dimensions. Women continue to be massively underrepresented in decision-making positions resulting in their needs, demands, and point of views being largely ignored at the policy level. The consequence is gender-blind policies that directly or indirectly perpetuate

⁴ Africa Commission on Human and Peoples' Rights, "Protocol to the African Charter on Human Peoples' Rights on the Rights of Women in Africa," (11 July 2003), available at www.achpr.org/english/_info/women_en.html (last accessed 21 August 2009).

^{5 &}quot;Kampala Declaration: Prevent Gender-Based Violence in Africa," declaration from meeting, Kampala, Uganda, 4–6 September 2003, available at www.preventgbvafrica.org/content/kampala-declaration-prevent-gender-based-violence-africa (last accessed 24 August 2009).

⁶ United Nations General Assembly, "Preamble" in Resolution A/RES/48/104, "Declaration on the Elimination of Violence against Women," (20 December 1993).

^{7 &}quot;Gender-based violence is violence involving men and women, in which the female is usually the victim; and which is derived from unequal power relationships between men and women. Violence is directed specifically against a woman because she is a woman, or affects women disproportionately. It includes, but is not limited to, physical, sexual and psychological harm (including intimidation, suffering, coercion, and/or deprivation of liberty within the family, or within the general community). It includes that violence which is perpetrated or condoned by the state." See UNFPA Gender Theme Group (1998), Qtd in USAID, Gender-based Violence in sub-Saharan Africa: A Review of Demographic and Health Survey Findings and Their Use in National Planning (Washington, D.C., 2008), 13.

⁸ Claudia Garcia-Moreno, Henrica A.F.M. Jansen, Mary Ellsberg, Lori Heise, and Charlotte Watts, WHO Multi-country Study on Women's Health and Domestic Violence against Women (Geneva, 2005).

discrimination against women.⁹ An attempt to include structural dimensions of GBV in the associated measurements can include factors, such as wage gaps, educational disparities, professional disadvantages, any gender discrimination resulting from the legal system of policy decisions, as well as female prenatal infanticide, and female genital cutting.

Finally, there are plausible arguments for extending GBV to include violence exercised against men and boys. Authors, such as Carpenter, criticize interpretations of GBV that focus exclusively on violence against women for missing important forms of violence occurring against men and boys due to their specific gender role.¹⁰ Moreover, it has been stressed that the majority of survivors of sexual violence within support organizations are children of both sexes—not adult women.¹¹ A corresponding inclusive definition of GBV sees the concept as describing harm done to *any* individual or group on the basis of their gender role in society.¹² Although such analysis is important, this paper focuses on violence against women (VAW).

Approaches to Measurement and Available Data

Several different approaches have been taken to measuring VAW: One key strand of measuring VAW estimates the associated societal costs. The rationale behind quantifying the societal impact of VAW is to provide a stimulus for policy changes because such approaches help to highlight the benefits of prevention strategies and programs. Direct costs from VAW include health care, police and judicial services, property damages, or treatment programs for victims and perpetrators. Indirect costs comprise the value of goods and services lost due to lowered productivity or days absent from work, costs from heightened morbidity and mortality rates, pain and loss in quality of life, behavioral problems of children, or intergenerational transmission of violence.¹³

Second, measurements of violence against women have long been dominated by studies coming from and catering to healthcare organizations. Such studies concentrate on women's physical, reproductive, and psychological health and well-being.¹⁴ Herein intimate partner abuse is widely accepted as the most pervasive form of VAW.¹⁵

Finally, VAW is also measured from the perspective of prevention and punishment. This approach appears to make most sense for comparative studies, where structured state responses are frequent among the participating states. It is questionable how useful this approach would be in the African context, where only a few states have installed and implemented state-based prevention and response mechanisms against VAW.

The first data collection that targeted VAW specifically was conducted in 1993 by Statistics Canada and ever since measurements of VAW have been increasing in number and improving in quality throughout most Western countries, including in the EU, the United States, and Canada. In African countries, however, although a number of organizations work on issues related to VAW, comparatively little data are available from which one could analyze VAW across countries, or study the effects of relevant policies over time within a single country.

⁹ UNFPA, "Combating Gender-Based Violence: A Key to Achieving the MDGS," (2005), 10.

¹⁰ R. Charli Carpenter, "Recognizing Gender-Based Violence Against Civilian Men and Boys in Conflict Situations," *Security Dialogue*, XXXVII (2006), 83–103.

¹¹ Victoria Rumbold, "Sexual and Gender Based Violence in Africa: Literature Review," (2008), 10, available at www.popcouncil.org/pdfs/ AfricaSGBV_LitReview.pdf (last accessed 24 August 2009).

¹² Judy Benjamin and Khadija Fancy, The Gender Dimensions of Internal Displacement (New York, 1998); Human Rights Watch, The War Within the War: Sexual Violence Against Women and Girls in the Congo (New York, 2002); James Lang, "Introduction," in James Lang (ed.), Partners in Change: Working with Men To End Gender-Based Violence (Santo Domingo, 2002).

¹³ See for instance, Hugh Waters and others, The Economic Dimensions of Interpersonal Violence (Geneva, 2004).

¹⁴ Andrew Morrison and Maria Beatriz Orlando, "The Costs and Impacts of Gender-Based Violence in Developing Countries: Methodological Considerations and New Evidence," World Bank, available at www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2006/05/26/000090341_20060526092708/Rendered/PDF/361510Gender0b1lence0Costs01PUBLIC1.pdf (last accessed 24 August 24, 2009), 27.

¹⁵ L. Heise, M. Ellsberg, and M. Gottmoeller, "A Global Overview of Gender-Based Violence," International Journal of Gynecology and Obstetrics, LXXVIII (2002), 5–14.

In sub-Saharan Africa, there are three countries, Malawi, South Africa, and Zambia, for which national-level data for at least fifteen years are available on physical assaults on women by a male partner.¹⁶ In addition, more recent government data are available for several countries: Ghana, for instance, has begun to gather data on VAW, relying mainly on administrative records to measure scope and prevalence. The Ghanaian Government includes indicators of assault, rape, threats of violence, offensive conduct, defilement, abduction, and indecent assault. In addition, Ghana's Demographic and Health Survey (GDHS) in 2003 and the Multiple Indicator Cluster Survey in 2006 gathered data on VAW, including attitudes of men and women toward domestic VAW.¹⁷ In Rwanda, a population-based survey was conducted in 2004 by the International Rescue Committee and the Rwandan Ministry of Gender and Family Promotion (MIGEPROF). The study interviewed 722 women on domestic and community violence and found that 32.4 percent of women had been physically or verbally abused in their community at least once in the previous five years.¹⁸

In addition to data collected by national governments and organizations, a key resource for future large-scale, crosscountry comparisons of VAW are the Demographic and Health Surveys (DHS). They produce comparable data across a large number of developing countries. DHS was started as a project to support government and private agencies within developing countries in conducting data on population, maternal, and child health. DHS cover several aspects of GBV against women. First, all surveys include what the DHS terms "women's status and empowerment indicators," such as women's literacy and educational attainment, employment, whether the woman was able to choose her spouse, and so on. In addition, in certain countries specific "Women's Status and Empowerment Modules" were carried out. DHS also gathered data on female genital cutting (FGC) in seventeen African countries between 1990 and 2004.¹⁹ In the early 1990s, DHS started examining data on domestic violence in selected countries.

Toward an Internationally Comparable Framework

As a number of experts highlight, data remain a problem for international efforts to understand the prevalence of VAW and to combat it, particularly in Africa. One way forward was described in a UN Expert Group Meeting in October 2007, which suggested a focus on the more common forms of VAW in the short run since these factors currently have the most data available.²⁰ The group deemed physical, sexual, and intimate partner violence and certain harmful traditional practices (including female genital cutting and early marriage) to be sufficiently common in all parts of the world to allow for robust and comparative rates. The group proposed to include a measure of severity and, where possible, perpetrator as factors in all prevalence indicators, ideally through dedicated population-based surveys (or alternatively, a special module in a more general survey, such as health of victimization). In detail their proposed indicators are:

- i) <u>Physical Violence</u>: percentage of women who have experienced physical violence during a lifetime/in the last year (over the total number of women). Disaggregate data by severity (moderate/severe) and perpetrator (family member, state authority, stranger).
- ii) <u>Sexual Violence</u>: percentage of women who have experienced sexual assault/rape during a lifetime/the last year (over the total number of women). Disaggregate data by frequency (once/few/many times) and perpetrator.

¹⁶ Report of the Secretary-General, "In-depth Study on All Forms of Violence Against Women," (2006).

^{17 &}quot;Indicators to Measure Violence against Women," United Nations Expert Group Meeting, United Economic Commission for Europe and United Nations Statistical Division, Geneva, Switzerland, 8–10 October 2007, 15.

¹⁸ Ministry of Gender and Family Protection, "Violence Against Women," (2004), available at www.grandslacs.net/doc/4005.pdf (last accessed 18 February 2009), 6–7.

¹⁹ In Burkina Faso, Côte d'Ivoire, Egypt, Eritrea, Kenya, Mali, Nigeria, and Tanzania two surveys on FGC were carried out in this timeframe.

^{20 &}quot;Report of the Expert Group Meeting," United Nations Expert Group Meeting of the United Nations Division for the Advancement of Women (UNDAW), the United Nations Economic Commission for Europe (UNECE), and the United Nations Statistical Division, Geneva, Switzerland, 8–10 October 2007.

- iii) <u>Intimate Partner Violence</u>: percentage of women who have experienced physical or sexual violence by current or former partners during a lifetime/the last year (over the total number of women). Disaggregate data by frequency.
- iv) <u>Harmful Traditional Practices</u>:
 - a. percentage of women subjected to female genital cutting (over the total number of women). Data should be aggregated by age.
 - b. Percentage of women whose age at marriage was below 18 years (over the total number of women).²¹

The Group Meeting recommended that the UN Statistical Commission request data on the above-mentioned forms of VAW from all member states through dedicated population-based surveys. It expressed reasonable hope that more data will become available within the next 5–10 years.

Conclusion

There is no doubt that GBV has received ever increasing attention on national and international policymaking and NGO levels. The issue has been acknowledged to have direct social, health, and economic relevance and suggestions for definitions and measurements have increased noticeably. African countries too have acknowledged the importance of the issue, yet there, the topic is only emerging at the policy level. Current methodologies make it most feasible to collect systematic data on physical, sexual, and emotional forms of violence against women as opposed to structural forms or more inclusive forms of violence. While a number of studies exist, data on GBV in the African context, no matter what definition, are still extremely scarce and do not presently suffice for cross-national comparisons pertaining to the entire continent. While international institutional pressures to begin gathering representative data are likely to increase further over the upcoming years, comparable numbers for all African countries are unlikely to become available in the near future.

²¹ The above indicators do not fully cover the scope of VAW and in the long run the group suggests including all forms of VAW and therein prioritizing the following: killing of women by intimate partners; female infanticide; threats of violence; economic and emotional/psychological violence as part of intimate partner violence; crimes committed against women in the name of "honor"; conflict/ crisis-related violence against women; dowry-related violence; sexual exploitation; trafficking; femicide (female murder by an intimate partner); forced marriage; and sexual harassment. See "Indicators to Measure Violence against Women," 27.

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 Rule of Law.

This political good has three main components, all weighted equally in this 2009 Index of African Governance: Ratification of Critical Legal Norms; Judicial Independence and Efficiency; and Corruption. In terms of measurement, this category is slightly different from the other four. Although this Index prefers not to use data based on perceptions, such "objective" data are not available for many aspects of this category, as explained in more depth in the notes for various indicators.

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."

In the overall results for this category for 2007, Cape Verde scores at the top, followed by Botswana, Mauritius, Namibia, and South Africa. Ghana, the Seychelles, Tunisia, Lesotho, and Senegal complete the top ten. The narrow definition of rule of law employed in this category is important to remember: Tunisia, for instance, performs relatively well in this category, indicating its relative lack of public sector corruption and the fact that its formal legal norms in the area of human and property rights are relatively consistent with international conventions. Its poor record of respect for civil and political rights, however, is clearly reflected in the category of "Participation and Human Rights."

The countries at the bottom of the 2007 rankings in this category include, from the bottom up, Somalia, the Democratic Republic of the Congo, Liberia, the Sudan, Guinea-Bissau, Sierra Leone, Angola, Côte d'Ivoire, Chad, and the Central African Republic. This list of countries reflects both the actions of governments in power, and legacies of the past. Despite recent reforms in Liberia, for instance, citizens still cannot rely on the rule of law in their country. The Liberian government faces continuing challenges in improving the inefficient judicial system, remedying public sector corruption, and providing for secure property rights.

The specific sub-categories and indicators of this category are as follows:

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."

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*).

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 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 are 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 multiple institutions. In order to give scores for all countries, we also include some additional estimates based on information from the Internet Center. 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 &}quot;Justice Sector and Rule of Law" country reports are available through the Africa Governance Monitoring and Advocacy Project at www. afrimap.org/. On the ABA project, see www.abanet.org/rol/africa/.

RULE OF LAW, TRANSPARENCY, AND CORRUPTION RANKINGS (LISTED BY 2007 SCORE)

1	Cape Verde	88.5
2	Botswana	84.8
3	Mauritius	84.6
4	Namibia	77.2
5	South Africa	77.0
6	Ghana	75.1
7	Seychelles	74.0
8	Tunisia	70.5
9	Lesotho	67.1
10	Senegal	66.3
11	Malawi	63.4
12	Burkina Faso	62.7
13	Mauritania	62.5
14	Algeria	62.1
15	Morocco	61.7
16	Zambia	60.9
17	Swaziland	59.6
18	Madagascar	59.4
19	Tanzania	58.9
20	Mali	56.6
21	Egypt	56.5
22	Benin	54.7
23	Uganda	54.4
24	Gabon	53.9
25	Niger	53.1
26	Kenya	52.9
27	Gambia	52.6
28	Nigeria	52.3
29	Тодо	51.2
30	Comoros	51.2
31	Guinea	49.7
32	Mozambique	49.5
33	Ethiopia	49.2
34	Rwanda	48.4
35	Sao Tome and Principe	46.2
36	Eritrea	46.0
37	Djibouti	45.0
38	Burundi	44.4
39	Cameroon	44.1
40	Zimbabwe	43.1
41	Congo (Brazzaville)	42.8
42	Equatorial Guinea	41.9
43	Libya	41.4
44	Central African Republic	40.8
45	Chad	37.7
46	Cote d'Ivoire	37.5
47	Angola	35.3
48	Sierra Leone	35.3
49	Guinea-Bissau	32.1
50	Sudan	29.0
51	Liberia	26.9
52	Congo, Democratic Republic	23.2
53	Somalia	5.6

RULE OF LAW, TRANSPARENCY, AND CORRUPTION CATEGORY SCORES (LISTED BY COUNTRY "A" TO "Z")

	2000	2002	2005	2006	2007
Angola	24.7	25.4	39.1	37.3	35.3
Benin	57.4	59.2	51.9	52.0	54.7
Botswana	82.7	84.4	82.5	82.2	84.8
Burkina Faso	55.2	51.2	61.0	59.6	62.7
Burundi	47.1	47.1	48.6	49.1	44.4
Cameroon	41.5	40.2	43.4	44.7	44.1
Cape Verde	78.5	74.8	85.2	87.2	88.5
Central African Republic	48.4	48.4	45.4	40.8	40.8
Chad	39.0	39.0	43.0	39.0	37.7
Comoros	48.6	48.6	50.5	51.9	51.2
Congo (Brazzaville)	46.6	46.6	44.8	44.1	42.8
Congo, Democratic Rep.	36.2	36.2	25.8	24.5	23.2
Cote d'Ivoire	48.8	46.8	36.6	36.6	37.5
Djibouti	41.1	37.4	41.0	44.3	45.0
Equatorial Guinea	34.5	38.2	44.6	43.3	41.9
Eritrea	33.9	50.5	49.2	47.3	46.0
Ethiopia	43.3	49.8	49.1	47.9	49.2
Gabon	51.4	59.9	55.9	55.2	53.9
Gambia	61.1	61.1	57.4	55.3	52.6
Ghana	64.4	71.1	71.1	73.3	75.1
Guinea	49.2	51.0	51.7	51.7	49.7
Guinea-Bissau	48.6	48.6	34.6	36.5	32.1
Kenya	54.3	55.5	57.3	54.7	52.9
Lesotho	68.2	70.0	67.4	68.0	67.1
Liberia	19.3	19.3	28.3	25.8	26.9
Madagascar	46.1	52.1	55.5	58.0	59.4
Malawi	67.1	64.4	63.8	62.7	63.4
Mali	58.1	58.1	52.3	54.7	56.6
Mauritania	70.6	72.5	62.7	59.4	62.5
Mauritius	80.5	79.9	83.3	79.9	84.6
Mozambique	40.9	44.2	47.3	49.4	49.5
Namibia	91.0	86.3	74.6	77.2	77.2
Niger	49.3	49.3	51.3	52.5	53.1
Nigeria	35.4	39.9	45.3	49.0	52.3
Rwanda	46.7	50.4	44.6	47.0	48.4
Sao Tome and Principe	45.4	45.4	41.3	44.9	46.2
Senegal	63.5	65.5	65.7	66.9	66.3
Seychelles	72.5	72.5	71.2	77.2	74.0
Sierra Leone	40.8	38.9	38.9	37.9	35.3
Somalia	20.0	20.0	20.0	8.2	5.6
South Africa	76.7	74.7	76.0	78.7	77.0
Sudan	41.4	44.7	31.6	30.3	29.0
Swaziland	50.5	46.8	50.9	56.8	59.6
Tanzania	53.6	55.6	58.3	60.3	58.9
Togo	48.2	48.2	46.9	47.8	51.2
Uganda	53.4	55.4	55.5	56.5	54.4
Zambia	62.4	61.7	61.2	59.3	60.9
Zimbabwe	49.9	45.5	46.4	44.4	43.1
Algeria	54.2	53.5	56.8	56.9	62.1
Egypt	63.4	61.6	62.4	57.9	56.5
Libva	25.1	25.1	42.1	40.8	41.4
Morocco	71.5	58.6	56.5	60.8	61.7
Tunisia	76.5	73.8	71.8	69.2	70.5
RULE OF LAW, TRANSPARENCY, AND CORRUPTION RANK (LISTED BY COUNTRY "A" TO "Z")

	2000	2002	2005	2006	2007
Angola	51	50	46	47	47
Benin	18	17	25	27	22
Botswana	2	2	3	2	2
Burkina Faso	19	25	15	14	12
Burundi	34	35	32	31	38
Cameroon	40	43	41	38	39
Cape Verde	4	4	1	1	1
Central African Republic	32	33	36	43	44
Chad	45	45	42	45	45
Comoros	31	32	29	28	30
Congo (Brazzaville)	36	38	38	41	41
Congo, Democratic Rep.	46	49	52	52	52
Cote d'Ivoire	29	36	48	48	46
Djibouti	42	48	45	40	37
Equatorial Guinea	48	47	40	42	42
Eritrea	49	27	30	35	36
Ethiopia	39	29	31	33	33
Gabon	24	16	21	23	24
Gambia	16	15	17	22	27
Ghana	12	9	8	7	6
Guinea	28	26	26	29	31
Guinea-Bissau	30	31	49	49	49
Kenva	20	21	18	24	26
Lesotho	10	10	9	9	9
Liberia	53	53	51	51	51
Madagascar	37	24	22	17	18
Malawi	11	12	11	11	11
Mali	17	19	24	25	20
Iviaii Marritania	Q	8	12	15	13
Mauritania	3	3	2	3	3
Magamhigua	43	42	23	30	32
Niozamoique	45	1	5	5	32
Niger	27	30	27	26	25
Nigeria	47	30	37	32	23
Rwanda	77	29	30	32	20
Sao Tome and Principe	39	20	39	30	34
Suo Tome and Timerpe Senegal	13	11	44	10	10
Savehallas	7	7	7	6	7
Sierra Leone	1	46	47	46	18
Sierra Leolie	44 E2	40	47	40	40
Solitalia	52	52	33	33	55
South Africa	5	5	4	4	5
Sudan	41	41	50	50	50
Swaziland	25	37	28	20	17
Tanzania	22	20	16	13	19
logo	33	34	34	34	29
Uganda	23	22	23	21	23
Zambia	15	13	14	16	16
Zimbabwe	26	39	35	39	40
Aigeria	21	23	19	19	14
Egypt	14	14	13	18	21
Libya	50	51	43	44	43
Morocco	8	18	20	12	15
Tunisia	6	6	6	8	8

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 (UN) 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 Freedom in the World
5	Efficiency of the courts, measured by the numbers of pre-trial detainees as a percentage of all prisoners	National sources, either compiled by our own in-country researchers or by the International Centre for Prison Studies, King's College London
6	Efficiency of national institutions regarding contract enforcement	Contract enforcement measure from the World Bank's Doing Business study

Sub-Category 3: Corruption

7		Transparency International's Corruption Perceptions
	Public sector corruption	Index (CPI) and the Internet Center for Corruption
		Research

RULE OF LAW, TRANSPARENCY, AND

a) Ratification of Critical Legal Norms

	Ratification of Core	International	Property Rights
	International HR Conventions	Sanctions	Index
Angola	4	0	20
Benin	6	0	30
Botswana	5	0	70
Burkina Faso	7	0	30
Burundi	6	0	30
Cameroon	6	0	30
Cape Verde	7	0	70
Central African Republic	5	0	20
Chad	6	0	20
Comoros	3	0	30
Congo (Brazzaville)	6	0	10
Congo, Democratic Rep.	6	1	10
Cote d'Ivoire	6	1	30
Djibouti	5	0	30
Equatorial Guinea	6	0	30
Eritrea	5	0	10
Ethiopia	6	0	30
Gabon	6	0	40
Gambia	5	0	30
Ghana	7	0	50
Guinea	7	0	30
Guinea-Bissau	3	0	20
Kenya	6	0	35
Lesotho	7	0	40
Liberia	6	1	25
Madagascar	6	0	50
Malawi	6	0	40
Mali	7	0	30
Mauritania	7	0	30
Mauritius	6	0	60
Mozambique	5	0	30
Namibia	6	0	30
Niger	6	0	30
Nigeria	6	0	30
Rwanda	5	1	30
Sao Tome and Principe	2	0	30
Senegal	7	0	50
Seychelles	7	0	50
Sierra Leone	6	1	10
Somalia	4	1	10
South Africa	5	0	50
Sudan	4	1	30
Swaziland	6	0	50
Tanzania	5	0	30
Togo	6	0	30
Uganda	7	0	30
Zambia	6	0	40
Zimbabwe	5	0	10
Algeria	7	0	30
Egypt	7	0	40
Libya	7	0	10
Morocco	7	0	35
Tunisia	6	0	50

CORRUPTION SUMMARY OF RAW DATA (2007)

b) Judicial Independence and Efficieny

c) Corruption

Judicial Independence	Efficiency	Number of Dave	c) corruption
Liging Eroadom House's	ef Courts	to Sottle Contract	
"Dula of Law" Sub Score	(Dra trial Datainaas)	Dispute	Computing
Kule of Law Sub-Scole	(Pie-tilai Detailiees)	Dispute	Corruption
4	58.9	1011	1.9
12	79.6	825	3.1
13	17.1	987	5.8
6	46.3	446	3.5
4	71.1	558	1.9
2	60.4	800	2.3
14	30.5	425	5.1
3	50.0	660	2
1	38.0	743	1.6
8	32.5	506	2.5
2	40.0	560	1.9
5	75.0	680	1.7
5	28.5	1005	2
5	57.2	1225	3
1		553	1.7
2		405	2.6
4	(A) A	690	2.0
0	40.0	1070	3.1
1	18.5	434	1.9
12	31.6	487	3.9
4	51.3	276	1.6
6	10.0	1140	1.9
1	46.9	465	2.1
11	18.6	695	3.2
7	97.3	1280	2.4
9	64.7	871	3.4
8	16.2	432	2.8
9	56.8	860	3.1
6	13.0	400	2.8
13	24.4	750	5.5
1	30.0	1010	2.6
10	7.9	270	4.5
8	76.0	545	2.8
5	65.0	457	2.7
6	26.9	310	3
12	34.0	1185	2.7
10	37.2	780	3.4
11	62.6	720	4.8
8	53.7	515	1.9
0	22.2		1
12	30.0	600	4.9
0	10.0	810	1.6
4	31.5	972	3.0
10	44.U	402	3
4	55.4	588	2.1
6	56.8	535	2.6
8	33.0	4/1	2.8
1	23.4	410	1.8
5	11.3	630	3.2
4	9.9	1,010	2.8
0	50.1	645	2.6
6	46.5	615	3.5
4	22.7	565	4.4

RULE OF LAW, TRANSPARENCY, AND CORRUPTION SUMMARY

a) Ratification of Critical Legal Norms

b) Judicial Independence and Efficieny

	Ratifications of Core	e		Judicial Independence	Efficiency
	International HR	International	Property Rights	Using Freedom House's	of Courts
Angolo	Conventions	Sanctions	Index	"Rule of Law" Sub-Score	(Pre-trial Detainees)
Angola	50.0	100.0	16.7	28.6	41.7
Benin	83.3	100.0	33.3	85.7	19.2
Botswana	66.7	100.0	100.0	92.9	87.1
Burkina Faso	100.0	100.0	33.3	42.9	55.4
Burundi	83.3	100.0	33.3	28.6	28.4
Cameroon	83.3	100.0	33.3	14.3	40.1
Cape Verde	100.0	100.0	100.0	100.0	66.0
Central African Republic	66.7	100.0	16.7	21.4	
Chad	83.3	100.0	16.7	7.1	42.7
Comoros	33.3	100.0	33.3	57.1	70.4
Congo (Brazzaville)	83.3	100.0	0.0	14.3	62.2
Congo, Democratic Rep.	83.3	0.0	0.0	0.0	24.2
Cote d'Ivoire	83.3	0.0	33.3	35.7	74.7
Djibouti	66.7	100.0	33.3	35.7	43.5
Equatorial Guinea	83.3	100.0	33.3	7.1	
Eritrea	66.7	100.0	0.0	14.3	
Ethiopia	83.3	100.0	33.3	28.6	
Gabon	83.3	100.0	50.0	42.9	62.2
Gambia	66.7	100.0	33.3	50.0	85.6
Ghana	100.0	100.0	66.7	85.7	71.3
Guinea	100.0	100.0	33.3	28.6	49.9
Guinea-Bissau	33.3	100.0	16.7	42.9	
Kenva	83.3	100.0	41.7	50.0	54.7
Lesotho	100.0	100.0	50.0	78.6	85.5
Liberia	83.3	0.0	25.0	50.0	0.0
Madagascar	83.3	100.0	66.7	64.3	35.4
Malawi	83.3	100.0	50.0	57.1	88.1
Mali	100.0	100.0	33.3	64.3	44.0
Mauritania	100.0	100.0	33.3	42.9	91.5
Mauritius	83.3	100.0	83.3	92.9	79.2
Mozambique	66.7	100.0	33.3	50.0	73.1
Namibia	83.3	100.0	33.3	71.4	97.1
Niger	83.3	100.0	33.3	57.1	23.1
Nigeria	83.3	100.0	33.3	35.7	35.1
Rwanda	66.7	0.0	33.3	42.9	76.4
Sao Tome and Principe	16.7	100.0	33.3	85.7	68.7
Senegal	100.0	100.0	66.7	71.4	65.3
Sevehelles	100.0	100.0	66.7	78.6	37.7
Sierra Leone	83.3	0.0	0.0	57.1	47.3
Somalia	50.0	0.0	0.0	0.0	
South Africa	66.7	100.0	66.7	85.7	73.1
Sudan	50.0	0.0	33.3	0.0	94.8
Swaziland	83.3	100.0	66.7	28.6	71.4
Tanzania	66.7	100.0	33.3	71.4	57.9
Тодо	83.3	100.0	33.3	28.6	45.5
Uganda	100.0	100.0	33.3	42.9	44.0
Zambia	83.3	100.0	50.0	57.1	69.8
Zimbabwe	66.7	100.0	0.0	7.1	80.2
Algeria	100.0	100.0	33.3	35.7	93.4
Egypt	100.0	100.0	50.0	28.6	94.9
 Lihva	100.0	100.0	0.0	0.0	51.2
Morocco	100.0	100.0	41.7	42.9	55.2
Tunisia	83.3	100.0	66.7	28.6	81.0
	00.0				

OF INDEX SCORES AND CATEGORY CALCULATIONS (2007)

c) Corruption

Number of Days to Settle Contract Dispute	Corruption	Legal Norms Sub-Score	Judicial Independence Sub-Score	Corruption Sub-Score	Rule of Law, Transparency, and Corruption 2007	
26.6	18.0	55.6	32.3	18.0	35.3	
45.0	42.0	72.2	50.0	42.0	54.7	
29.0	96.0	88.9	69.6	96.0	84.8	
82.6	50.0	77.8	60.3	50.0	62.7	
71.5	18.0	72.2	42.8	18.0	44.4	
47.5	26.0	72.2	34.0	26.0	44.1	
84.7	82.0	100.0	83.6	82.0	88.5	
61.4	20.0	61.1	41.4	20.0	40.8	
53.2	12.0	66.7	34.3	12.0	37.7	
76.6	30.0	55.6	68.0	30.0	51.2	
71.3	18.0	61.1	49.3	18.0	42.8	
58.9	14.0	27.8	27.7	14.0	23.2	
50.5	20.0	38.9	53.6	20.0	37.5	
5.4	40.0	66.7	28.2	40.0	45.0	
72.0	14.0	72.2	39.6	14.0	41.9	
86.6	32.0	55.6	50.5	32.0	46.0	
58.4	32.0	72.2	43.5	32.0	49.2	
20.8	42.0	77.8	42.0	42.0	53.9	
83.8	18.0	66.7	73.1	18.0	52.6	
78.5	58.0	88.9	78.5	58.0	75.1	
99.4	12.0	77.8	59.3	12.0	49.7	Z
13.9	18.0	50.0	28.4	18.0	32.1	ote
80.7	22.0	75.0	61.8	22.0	52.9	S
57.9	44.0	83.3	74.0	44.0	67.1	'e ii
0.0	28.0	36.1	16.7	28.0	26.9	Idic
40.5	48.0	83.3	46.7	48.0	59.4	ato
84.0	36.0	77.8	76.4	36.0	63.4	r de
41.6	42.0	77.8	49.9	42.0	56.6	SCI
87.1	36.0	77.8	73.8	36.0	62.5	ipti.
52.5	90.0	88.9	74.8	90.0	84.6	suc
26.7	32.0	66.7	49.9	32.0	49.5	for
100.0	70.0	72.2	89.5	70.0	77.2	los
72.8	36.0	72.2	51.0	36.0	53.1	Irce
81.5	34.0	72.2	50.8	34.0	52.3	s ar
96.0	40.0	33.3	71.8	40.0	48.4	nd a
9.4	34.0	50.0	54.6	34.0	46.2	ddi
40.5	48.0	99.0	62.1	48.0	40.2	lion
49.5	76.0	88.0	57.0	48.0	74.0	al i
75.7	18.0	00.9	57.2	78.0	74.0	nfo
/5./	18.0	27.8	00.1	18.0	35.3	ma
	0.0	16.7	0.0	0.0	5.6	tio
67.3	78.0	//.8	/5.4	78.0	77.0	
46.5	12.0	27.8	47.1	12.0	29.0	um
30.5	52.0	83.3	43.5	52.0	59.6	ber
81.0	40.0	66.7	70.1	40.0	58.9	n s
68.5	34.0	72.2	47.5	34.0	51.2	ita
73.8	32.0	77.8	53.5	32.0	54.4	ics
80.1	36.0	77.8	69.0	36.0	60.9	are
86.1	16.0	55.6	57.8	16.0	43.1	est
64.4	44.0	77.8	64.5	44.0	62.1	ima
26.7	36.0	83.3	50.1	36.0	56.5	tes.
	32.0	66.7	25.6	32.0	41.4	
65.8	50.0	80.6	54.6	50.0	61.7	
70.8	68.0	83.3	60.1	68.0	70.5	

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 explicitly consistent with international law.

During the years considered in the 2009 Index of African Governance, there were 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 on the Elimination of All Forms of Discrimination against Women (18 December 1979)
- Convention against Torture and Other Cruel, Inhuman or 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 2009 Index of African Governance:

- Convention on the Rights of Persons with Disabilities, which entered into force on 3 May 2008, and thus, will be considered in the next edition of the Index of African Governance
- International Convention for the Protection of All Persons from Enforced Disappearance (not yet in force)

This 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 ratified in that year.

Obviously, ratification of human rights treaties may be unrelated to respect for human rights *in practice*. This indicator thus addresses inputs (formal institutions) more than it does outputs (respect in practice). 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."

However, there is also some new evidence that treaty ratification may affect actual human rights practices within states. In *Mobilizing Human Rights: International Law in Domestic Politics* (New York, 2009), Beth Simmons examines this relationship and finds in her statistical analysis that "in many cases, ratification of human rights treaties has had a significant influence on rights practices even controlling for changes in democracy within countries from one year to the next."²

By 2007, fourteen African countries had ratified or acceded to all seven core human rights conventions then in force: Algeria, Burkina Faso, Cape Verde, Egypt, Ghana, Guinea, Lesotho, Libya, Mali, Mauritania, Morocco, Senegal, the Seychelles, and Uganda.

¹ OHCHR, "International Law," available at www2.ohchr.org/english/law/index.htm (last accessed 25 March 2009).

² Chapter 9, page 12 (unpublished draft).

Technical Notes

The OHCHR website lists the status of signature, ratification, and accession to each treaty.³ For each country, in each year, and for each convention, we give a score of "0" if the country has not ratified or acceded to the convention in that year and "1" if it has.⁴ Accession is taken as equivalent to ratification because it "has the same legal effect as ratification, acceptance or approval," according to the OHCHR.⁵ For each country, in each year, the number of treaties ratified/ acceded to is summed, giving a score between 0 and 7.

This information is taken from the pages on "Status of Ratification" of each core convention, available through the OHCHR's "International Law" page at 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 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," 56 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 www.migrantsrights.org/ [last accessed 5 August 2008]).

^{4.} 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."

⁵ 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 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

0,					SCAL	ED DA	ATA:					
F	RAW	DATA:			Ranke	d			Scaled	Overall	0-100	
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007
Angola	4	4	4	4	40	48	48	48	50.0	50.0	50.0	50.0
Benin	5	6	6	6	25	13	14	15	66.7	83.3	83.3	83.3
Botswana	3	5	5	5	44	37	38	38	33.3	66.7	66.7	66.7
Burkina Faso	6	7	7	7	7	1	1	1	83.3	100.0	100.0	100.0
Burundi	6	6	6	6	7	13	14	15	83.3	83.3	83.3	83.3
Cameroon	6	6	6	6	7	13	14	15	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	25	37	38	38	66.7	66.7	66.7	66.7
Chad	6	6	6	6	7	13	14	15	83.3	83.3	83.3	83.3
Comoros	2	3	3	3	48	51	51	51	16.7	33.3	33.3	33.3
Congo (Brazzaville)	5	6	6	6	25	13	14	15	66.7	83.3	83.3	83.3
Congo, Democratic Rep.	6	6	6	6	7	13	14	15	83.3	83.3	83.3	83.3
Cote d'Ivoire	6	6	6	6	7	13	14	15	83.3	83.3	83.3	83.3
Diibouti	2	5	5	5	48	37	38	38	16.7	66.7	66.7	66.7
Equatorial Guinea	4	6	6	6	40	13	14	15	50.0	83.3	83.3	83.3
Equatorial Guinea	2	5	5	5	48	37	38	38	16.7	66.7	66.7	66.7
Ethiopia	6	6	6	6	7	13	14	15	83.3	83.3	83.3	83.3
Gabon	5	6	6	6	25	13	14	15	66.7	83.3	83.3	83.3
Gambia	5	5	5	5	25	37	38	38	66.7	66.7	66.7	66.7
Ghana	3	7	7	7	44	1	1	1	33.3	100.0	100.0	100.0
Guinea	6	7	7	7	7	. 1	1	1	83.3	100.0	100.0	100.0
Guinea-Bissau	3	3	3	3	44	51	51	51	33.3	33.3	33.3	33.3
Kenva	5	6	6	6	25	13	14	15	66.7	83.3	83.3	83.3
Lesotho	5	6	7	7	25	13	1	1	66.7	83.3	100.0	100.0
Liberia	3	6	6	6	44	13	14	15	33.3	83.3	83.3	83.3
Madagascar	5	5	6	6	25	37	14	15	66.7	66.7	83.3	83.3
Malawi	5	5	6	0	25	10	14	15	00.7	00.7	03.3	03.3
Mali	6	7	7	7	7	13	14	1	00.0	100.0	100.0	100.0
Mauritania	0	7	7	7	1	1	1	1	03.3	100.0	100.0	100.0
Mauritina	2	0	6	1	48	13	14	1	16.7	83.3	83.3	100.0
Mauritius	6	6	6	6	7	13	14	15	83.3	83.3	83.3	83.3
Mozambique	5	5	5	5	25	37	38	38	66.7	66.7	66.7	66.7
Namibia	6	6	6	6	7	13	14	15	83.3	83.3	83.3	83.3
Niger	6	6	6	6	7	13	14	15	83.3	83.3	83.3	83.3
Nigeria Divigeria	5	6	6	6	25	13	14	15	66.7	83.3	83.3	83.3
Kwanda Sao Tomo and Brinaina	5	5	5	5	25	37	38	38	66.7	66.7	66.7	66.7
Sao Tome and Principe	1	2	2	2	53	53	53	53	0.0	16.7	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	25	13	14	15	66.7	83.3	83.3	83.3
Somalia	4	4	4	4	40	48	48	48	50.0	50.0	50.0	50.0
South Africa	5	5	5	5	25	37	38	38	66.7	66.7	66.7	66.7
Sudan	4	4	4	4	40	48	48	48	50.0	50.0	50.0	50.0
Swaziland	2	6	6	6	48	13	14	15	16.7	83.3	83.3	83.3
Tanzania	5	5	5	5	25	37	38	38	66.7	66.7	66.7	66.7
Togo	6	6	6	6	7	13	14	15	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	7	13	14	15	83.3	83.3	83.3	83.3
Zimbabwe	5	5	5	5	25	37	38	38	66.7	66.7	66.7	66.7
Algeria	6	7	7	7	7	1	1	1	83.3	100.0	100.0	100.0
Egypt	7	7	7	7	1	1	1	1	100.0	100.0	100.0	100.0
Libya	6	7	7	7	7	1	1	1	83.3	100.0	100.0	100.0
Morocco	7	7	7	7	1	1	1	1	100.0	100.0	100.0	100.0
Tunisia	6	6	6	6	7	13	14	15	83.3	83.3	83.3	83.3

Category:Rule of Law, Transparency, and CorruptionSub-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 measures whether a country is in gross violation of international law, based on whether or not sanctions are imposed on a country by the United Nations (UN) 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 is a very blunt measure, and because values can be only either 0 or 1, the presence of sanctions severely penalizes a country in the Index. We judge this penalty to be appropriate, given that the political situation in a country must be grave for international sanctions to be imposed.

Over the years of the Index, up to eight African countries have been under sanction in any one year. In 2005, 2006, and 2007, seven countries were under sanction: 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 five years of the Index. In several of these countries, multiple sanction 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 sanction 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). Libya was also under sanction in 2000 and 2002, under Resolutions 748 (1992), 883 (1993), and 1192 (1998). Sanction measures were lifted there pursuant to Resolution 2506 (12 September 2003).

Finally, Rwanda has been under sanction since 1994 pursuant to Resolution 918, which was terminated on 1 September 1996, in accordance with Resolution 1011. Rwanda was, however, under several other sanctions under Resolutions 1005 (1995), 1013 (1995), 1161 (1998), and 1749 (2007). On 10 July 2008, by Resolution 1823, the Security Council decided to terminate the remaining measures contained in Resolution 1011 (1995), and to dissolve the Committee established pursuant to Resolution 918 (1994) concerning Rwanda.¹ Thus, as of 2007, the latest year assessed systematically in the 2009 Index, Rwanda remains a country under sanction.

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.²

Technical Notes

This indicator assesses whether sanctions were in place during the majority of a given year. Thus, 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

¹ See www.un.org/sc/committees/918/index.shtml.

² See www.un.org/sc/committees.

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.³

³ For a summary of the literature on sanctions, see for instance, Koenraad Van Brabant for Humanitarian Policy Group and Relief and Rehabilitation Network at the Overseas Development Institute, "Sanctions: The Current Debate. A Summary of Selected Readings," (London, 1999).

INTERNATIONAL SANCTIONS

Our Coding, based on Information from the UN Security Council

					SCAI	LED D	ATA:					
]	RAW	DATA:			Ranke	ed			Scaled	Overal	10-100	
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007
Angola	1	0	0	0	46	1	1	1	0.0	100.0	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 (Brazzaville)	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Congo, Democratic Rep.	0	1	1	1	1	47	47	47	100.0	0.0	0.0	0.0
Cote d'Ivoire	0	1	1	1	1	47	47	47	100.0	0.0	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	46	1	1	1	0.0	100.0	100.0	100.0
Ethiopia	1	0	0	0	46	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	46	47	47	47	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	46	47	47	47	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
Sevchelles	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Sierra Leone	1	1	1	1	46	47	47	47	0.0	0.0	0.0	0.0
Somalia	1	1	1	1	46	47	47	47	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	- 1	- 1	1	1	47	47	47	100.0	0.0	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
Ilaanda	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Ugailda Zambia	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
ZaiilUla Zimbabwa	0	0	0	0	4	1	1	1	100.0	100.0	100.0	100.0
Algeria	0	0	0	0	1	1	1	1	100.0	100.0	100.0	100.0
Earnt	0	0	0	0	1	4	4	4	100.0	100.0	100.0	100.0
Egypt	U	0	0	0	TT	1	1	1	100.0	100.0	100.0	100.0
Libya	0	0	0	0	40	4	1	1	100.0	100.0	100.0	100.0
Tunicia	0	0	0	0	Т	1	1	1	100.0	100.0	100.0	100.0
i uilista	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. Despite a wealth of information on selected countries, however, comparable cross-country data in this area are lacking. In the absence of other data, the Index of African Governance assesses property rights using 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 from 0 (worst) to 100 (best).

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

Technical Notes

The Index of Economic Freedom is based on a particular ideology, 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....

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," in Heritage Foundation and Wall Street Journal, 2008 Index of Economic Freedom, (2008), 51–52.

• 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

The methodology apparently changed slightly in the 2009 edition, in which scores were assigned in 5-point increments, rather than only 10-point increments as in prior editions.

The 2008 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

As suggested by this source list, each edition of the Index of Economic Freedom is generally current as of half a year prior to the year of the edition; in other words, the 2009 Index of Economic Freedom roughly covers the period from mid-year 2007 to mid-year 2008.⁵ Thus, we take this lag into account in assigning scores in our Index of African Governance: for 2007, we use the Property Rights Index of 2008, which covers mid-year 2006 to mid-year 2007. For 2006, we use the 2007 Property Rights Index, and so on.

The Index of Economic Freedom contains no scores for the Comoros, Eritrea, Liberia, São Tomé and Príncipe, and the Seychelles until its 2009 edition. These figures, which address the period from mid-2007 to mid-2008 are used by our Index as rough estimates for 2000, 2002, 2005, 2006, and 2007, with the exception of Liberia. Liberia experienced a dramatic political shift in January 2006, when Ellen Johnson Sirleaf's administration took office. Thus, for Liberia, the 2009 edition scores are used as estimates for only the Index years 2006 and 2007.

The 2001 to 2008 editions of the Index of Economic Freedom contain no scores for the Democratic Republic of the Congo. Estimates for 2000, 2002, 2005, 2006, and 2007 are based on the score reported in both the 2000 and 2009 editions (10 in both years).

The editions of the Index of Economic Freedom after 2000 contain no scores for Somalia and the Sudan. Our Index estimates are based on the 2000 edition scores (10 and 30, respectively).

The 2001 to 2005 editions of the Index of Economic Freedom contain no scores for Angola and Burundi. We estimate values for both countries for our 2000 and 2002 Index years at 30, based on the Index of Economic Freedom's 2000 and 2006 scores (which are all 30).

The 2001 and 2002 editions of the Index of Economic Freedom contain no scores for Sierra Leone. We estimate our 2000 score at 30, based on the 2000 edition.

Scores for the Central African Republic are missing in the 1995 to 2001 editions of the Index of Economic Freedom. We estimate our 2000 score at 50, based on the 2002 edition of the Index of Economic Freedom.

³ Ibid.

⁴ Ibid., 52.

⁵ For instance, see www.heritage.org/Index/FAQ.aspx (last accessed 11 May 2009).

PROPERTY RIGHTS

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

	SCAI	ED D	ATA:									
F	RAW DATA:					ed		Scaled Overall 0-100				
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007
Angola	30	30	20	20	24	17	43	43	33.3	33.3	16.7	16.7
Benin	30	30	30	30	24	17	17	18	33.3	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	30	30	30	30	24	17	17	18	33.3	33.3	33.3	33.3
Burundi	30	30	30	30	24	17	17	18	33.3	33.3	33.3	33.3
Cameroon	30	30	30	30	24	17	17	18	33.3	33.3	33.3	33.3
Cane Verde	70	70	70	70		1	1	1	100.0	100.0	100.0	100.0
Central African Republic	50	20	20	20	6	17	42	42	66.7	22.2	10.0	16.7
Chad	20	30	20	20	24	17	43	40	22.2	22.3	10.7	10.7
Comoros	30	30	20	20	24	17	43	43	33.5	33.3	10.7	10.7
	30	30	30	30	24	17	17	18	33.3	33.3	33.3	33.3
Congo (Brazzaville)	30	10	10	10	24	45	47	47	33.3	0.0	0.0	0.0
Congo, Democratic Rep.	10	10	10	10	45	45	47	47	0.0	0.0	0.0	0.0
Cote d'Ivoire	30	30	30	30	24	17	17	18	33.3	33.3	33.3	33.3
Djibouti	50	30	30	30	6	17	17	18	66.7	33.3	33.3	33.3
Equatorial Guinea	10	30	30	30	45	17	17	18	0.0	33.3	33.3	33.3
Eritrea	10	10	10	10	45	45	47	47	0.0	0.0	0.0	0.0
Ethiopia	30	30	30	30	24	17	17	18	33.3	33.3	33.3	33.3
Gabon	50	50	40	40	6	4	11	11	66.7	66.7	50.0	50.0
Gambia	50	30	30	30	6	17	17	18	66.7	33.3	33.3	33.3
Ghana	50	50	50	50	6	4	4	4	66.7	66.7	66.7	66.7
Guinea	30	30	30	30	24	17	17	18	33.3	33.3	33.3	33.3
Guinea-Bissau	10	10	20	20	45	45	43	43	0.0	0.0	16.7	16.7
Kenya	50	50	40	35	6	4	11	16	66.7	66.7	50.0	41.7
Lesotho	50	50	40	40	6	4	11	11	66.7	66.7	50.0	50.0
Liberia			25	25			42	42			25.0	25.0
Madagascar	50	50	50	50	6	4	4	4	66.7	66.7	66.7	66.7
Malawi	50	50	40	40	6	4		-	66.7	66.7	50.0	50.0
Mali	50	00	40	40	0	47	47	40	00.7	00.7	00.0	00.0
Wiali Mauritania	50	30	30	30	0	17	17	18	00.7	33.3	33.3	33.3
Mauritania	30	30	30	30	24	17	17	18	33.3	33.3	33.3	33.3
Mauritius	70	70	60	60	1	1	3	3	100.0	100.0	83.3	83.3
Mozambique	30	30	30	30	24	17	17	18	33.3	33.3	33.3	33.3
Namibia	70	30	30	30	1	17	17	18	100.0	33.3	33.3	33.3
Niger	30	30	30	30	24	17	17	18	33.3	33.3	33.3	33.3
Nigeria	30	30	30	30	24	17	17	18	33.3	33.3	33.3	33.3
Rwanda	10	30	30	30	45	17	17	18	0.0	33.3	33.3	33.3
Sao Tome and Principe	30	30	30	30	24	17	17	18	33.3	33.3	33.3	33.3
Senegal	50	50	50	50	6	4	4	4	66.7	66.7	66.7	66.7
Seychelles	50	50	50	50	6	4	4	4	66.7	66.7	66.7	66.7
Sierra Leone	30	10	10	10	24	45	47	47	33.3	0.0	0.0	0.0
Somalia	10	10	10	10	45	45	47	47	0.0	0.0	0.0	0.0
South Africa	50	50	50	50	6	4	4	4	66.7	66.7	66.7	66.7
Sudan	30	30	30	30	24	17	17	18	33.3	33.3	33.3	33.3
Swaziland	70	50	50	50	1	4	4	4	100.0	66.7	66.7	66.7
Tanzania	30	30	30	30	24	17	17	18	33.3	33.3	33.3	33.3
Τοσο	30	30	30	30	24	17	17	18	33.3	33.3	33.3	33.3
Llaanda	50	30	30	30	6	17	17	18	66.7	33.3	33.3	33.3
7 ambia	50	50	40	40	6	1	11	11	66.7	66.7	50.0	50.0
ZaiiiUla Zimbah	10	10	40	40	45	4	47	47	00.7	00.7	50.0	0.0
Linuauwe	20	10	20	20	40	40	47	40	0.0	0.0	0.0	0.0
Aigella	50	30	30	30	24		17	10	33.3	33.3	33.3	33.3
Egypt	50	50	40	40	6	4	11	11	66.7	66.7	50.0	50.0
Libya	10	10	10	10	45	45	47	47	0.0	0.0	0.0	0.0
Morocco	50	30	30	35	6	17	17	16	66.7	33.3	33.3	41.7
Tunisia	50	50	50	50	6	4	4	4	66.7	66.7	66.7	66.7

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 latter sense is no easy task. Several on-going projects are engaged in collecting data and systematizing measurement tools.

In the absence of these ideal measures, we approximate a measure of judicial independence using the Rule of Law subscore from Freedom House's *Freedom in the World* for 2006, 2007, and 2008. The Rule of Law sub-score is a composite measure based on detailed expert surveys, on the basis of which each county is assigned a score of 0–16, where "0" indicates the lowest levels of rule of law and "16" the highest. The Rule of Law sub-score is one of four sub-scores that make up Freedom House's 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 does judicial independence.¹

In 2007, countries with the worst rule of law scores in the region included the Democratic Republic of the Congo, Libya, 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

Each edition of the *Freedom in the World* covers events in the previous calendar year. For instance, the 2008 edition of *Freedom in the World* assesses the period January 1 to December 31, 2007. Our Index, thus, assigns *Freedom in the World* scores accordingly: the 2008 edition is used in our assessment for 2007, the 2007 edition in our assessment for 2006, and the 2006 edition in our assessment for 2005.

Although Freedom House has offered *Freedom in the World* scores since 1973, it has only released sub-scores since its 2006 edition, which presents an assessment for 2005. Given the lack of available data before 2005, the 2005 values are used as rough estimates of the 2000 and 2002 values. Overall, available data suggest stability in most scores over time. For instance, for all countries, the correlation between the 2005 and 2006 data is 0.99. For 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.

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 2006-2008

					SCAI	ED D	ATA:					
F	RAW DATA:					ed			Scaled Overall 0-100			
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007
Angola	4	4	4	4	33	33	35	35	28.6	28.6	28.6	28.6
Benin	12	12	12	12	5	5	4	4	85.7	85.7	85.7	85.7
Botswana	13	13	13	13	3	3	2	2	92.9	92.9	92.9	92.9
Burkina Faso	6	6	6	6	26	26	26	24	42.9	42.9	42.9	42.9
Burundi	4	4	4	4	33	33	35	35	28.6	28.6	28.6	28.6
Cameroon	2	2	2	2	45	45	44	44	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	41	41	41	43	21.4	21.4	21.4	21.4
Chad	2	2	1	1	45	45	47	47	14.3	14.3	7.1	7.1
Comoros	8	8	8	8	16	16	17	15	57.1	57.1	57.1	57.1
Congo (Brazzaville)	2	2	2	2	45	45	44	44	14.3	14.3	14.3	14.3
Congo, Democratic Rep.	0	0	0	0	51	51	50	50	0.0	0.0	0.0	0.0
Cote d'Ivoire	3	3	3	5	41	41	41	31	21.4	21.4	21.4	35.7
Diibouti	5	5	5	5	30	30	31	31	35.7	35.7	35.7	35.7
Equatorial Guinea	1	1	1	1	48	48	47	47	7.1	7.1	7.1	7.1
Equatorial Gainea	3	3	2	2	41	41	44	44	21.4	21.4	14.3	14.3
Ethiopia	5	5	4	4	30	30	35	35	35.7	35.7	28.6	28.6
Gabon	7	7	6	6	23	23	26	24	50.0	50.0	42.9	42.9
Gambia	8	8	7	7	16	16	22	20	57.1	57.1	50.0	50.0
Ghana	12	12	12	12	5	5	4	4	85.7	85.7	85.7	85.7
Guinea	4	4	4	4	.33	33	35	35	28.6	28.6	28.6	28.6
Guinea-Bissau	8	8	8	6	16	16	17	24	57.1	57.1	57.1	42.9
Kenva	8	8	8	7	16	16	17	20	57.1	57.1	57.1	50.0
Lesotho	11	11	11	11	8	8	8	8	78.6	78.6	78.6	78.6
Liberia	7	7	7	7	23	23	22	20	50.0	50.0	50.0	50.0
Madagascar	, 0	,	0	0	15	15	13	13	64.3	64.3	64.3	64.3
Malawi	9	9	9	9	15	10	10	15	67.4	64.3 E7.4	64.3	67.4
Mali	0	0	9	0	10	10	10	10	57.1	70.0	71.4	57.1
Mouritania			10	9	0	0	10	13	70.0	10.0	/1.4	64.5
Maunitina	0	0	0	0	20	20	26	24	42.9	42.9	42.9	42.9
Mauritius	14	14	13	13	1	1	2	2	100.0	100.0	92.9	92.9
Mozambique	0	0	/	1	20	26	22	20	42.9	42.9	50.0	50.0
Namibia	10	10	10	10	11	11	10	10	71.4	71.4	71.4	/1.4
Niger	10	10	9	8	11	11	13	15	/1.4	/1.4	64.3	57.1
Nigeria Dworda	4	4	5	5	33	33	31	31	28.6	28.6	35.7	35.7
Kwallua Sao Tomo and Drinaina	6	6	6	6	26	26	26	24	42.9	42.9	42.9	42.9
Sao Tome and Emicipe	12	12	12	12	5	5	4	4	85.7	85.7	85.7	85.7
Sellegal	10	10	9	10	11	11	13	10	71.4	71.4	64.3	71.4
Sigma Lagra	11	11	11	11	8	8	8	8	78.6	78.6	78.6	78.6
Sierra Leone	8	8	8	8	16	16	17	15	57.1	57.1	57.1	57.1
Somalia	3	3	0	0	41	41	50	50	21.4	21.4	0.0	0.0
South Africa	13	13	12	12	3	3	4	4	92.9	92.9	85.7	85.7
Sudan	0	0	0	0	51	51	50	50	0.0	0.0	0.0	0.0
Swaziland	4	4	4	4	33	33	35	35	28.6	28.6	28.6	28.6
Tanzania	10	10	10	10	11	11	10	10	71.4	71.4	71.4	71.4
Togo	1	1	3	4	48	48	41	35	7.1	7.1	21.4	28.6
Uganda	7	7	7	6	23	23	22	24	50.0	50.0	50.0	42.9
Zambia	8	8	8	8	16	16	17	15	57.1	57.1	57.1	57.1
Zimbabwe	1	1	1	1	48	48	47	47	7.1	7.1	7.1	7.1
Algeria	4	4	5	5	33	33	31	31	28.6	28.6	35.7	35.7
Egypt	5	5	5	4	30	30	31	35	35.7	35.7	35.7	28.6
Libya	0	0	0	0	51	51	50	50	0.0	0.0	0.0	0.0
Morocco	4	4	6	6	33	33	26	24	28.6	28.6	42.9	42.9
Tunisia	4	4	4	4	33	33	35	35	28.6	28.6	28.6	28.6

Category:Rule of Law, Transparency, and CorruptionSub-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.

Most of our figures are from official national sources and are either compiled by our own in-country researchers or by the International Centre for Prison Studies (ICPS), King's College London.¹ Figures for some countries are drawn from the United Nations Surveys on Crime Trends and Operations of Criminal Justice Systems, which are also based on reports by national authorities. In addition, detailed studies of the rule of law in selected countries were consulted.

In the 2009 Index of African Governance, the pre-trial detention rate ranges from a low of 5.2 percent (Namibia in December 2001) to a high of about 97.3 percent (Liberia in August 2007). Namibia consistently had the lowest pre-trial detention rates over the years of the Index. In 2007, its estimated rate was 7.9 percent.

On average, across African countries the estimated rate of pre-trial detention was about 42 percent in 2007.² Rates of pretrial detention in Africa are high and notable when compared with rates in other world regions. Looking at information on pre-trial detention around the world in January 2008, ICPS's Roy 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% and 40%. But in almost half of African countries a majority of the prison population are pre-trial/remand prisoners...."³

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 2007. Several of the sources of these data have also highlighted these dramatic changes. The Open Society Initiative for Southern Africa (OSISA)'s 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 continued: "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."⁴ Further research into these dramatic improvements would be useful.

In interpreting these numbers, researchers should be aware that changes in the rate of pre-trial detention may result from a number of changes, beyond changes in the efficiency of the judicial system. For instance, an increase or decline in the number of people arrested could affect the pre-trial detention rate, even if the same number of cases are brought to trial. Changes in the number of arrests may be due in turn to changes in crime rates (and the variety of factors that affect crime rates), or to changes in the ability of the police to address and investigate crime. In order fully to understand the efficiency of the courts in any country, such possibilities should also be considered. Related statistics are generally available through the ICPS and UN surveys. Further information on selected countries is available in our files.

¹ See www.prisonstudies.org.

² This average excludes countries for which no data were available: the Central African Republic, Equatorial Guinea, Eritrea, Ethiopia, Guinea-Bissau, and Somalia.

³ Roy Walmsley, "World Pre-Trial/Remand Imprisonment List" (London, 2008), 1.

⁴ Available at allafrica.com.

Technical Notes

For most African countries, estimates of pre-trial detention are not available for each year. The estimates given below for each country are the best available, from various years, generally 1999–2009, as noted.⁵ 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. Several different ICPS's sources were consulted: "ICPS 2007" refers to ICPS's 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), "ICPS 2008c" refers to information from the relevant country's Prison Brief (updated 30 July 2008), and ICPS 2009 refers to information from the relevant country's Prison Brief (updated 30 July 2008), and ICPS 2009 refers to information from the relevant country's Prison Brief (updated 30 July 2009, which were updated 1 September 2008).⁶ The United Nations Surveys on Crime Trends and Operations of Criminal Justice Systems were also consulted and are abbreviated using the survey number (e.g., "UN 9th Survey"). The latest survey, the UN 10th Survey, was published in December 2008 and covers the period 2005 to 2006. The 9th Survey covers 2003 to 2004, the 8th covers 2001 to 2002, and the 7th covers 1998 to 2000. Figures from the UN surveys are calculated here based on "total persons awaiting trial or adjudication," divided by "total persons incarcerated."⁷ References for other figures are given in the footnotes.

Our Index of African Governance researchers attempted to collect data directly on this indicator for all sub-Saharan African countries. We report here estimates collected by our researchers only when we judge these estimates to be reliable—i.e., if sufficient documentation was provided by the researcher to assess the estimate and if it were broadly consistent with other figures from standard sources.⁸

If there are multiple estimates for a given year, we use in the Index the estimate that we judge to be the most reliable. If there are multiple reliable estimates for a single year, we use the estimate based on daily average populations, if available. If not, we use the estimate latest in the year (e.g., the estimate for December 2007, rather than for May 2007).

⁵ In a few cases, figures are only available for earlier years.

⁶ ICPS's website posts the most recent information available; however, ICPS does not currently maintain public archives of figures from earlier years.

⁷ If given, the figure for "incarcerated persons: convicted awaiting sentence" is included along with "total persons awaiting trial or adjudication." Figures are generally given for a selected date during the relevant year.

⁸ In the case of locally collected data, written documents were often not available for review as figures were based on information provided directly to our researchers at relevant offices and based on unpublished sources. In other instances, researchers were allowed to consult published reports, but were not allowed or were unable to make photocopies of these reports. In such instances when we do not have written documentation supporting reported figures, the authors cannot independently verify these figures. Thus, we only report these figures if sufficient information was provided to assess their reliability; if they are consistent with those in other published sources; and/or if they were reported to us directly by an official organization.

Country	Year(s)	Estimate(s) (%)	Source(s)
Algeria	2003, 2004; 2005, 2006; Nov. 2007	27.3, 22.8; 43.4, 43.2; 11.3	UN 9 th Survey; ⁹ UN 10 th Survey; ICPS 2009
Angola	Apr. 2003	58.9	ICPS 2009
Benin	Aug. 1999; 2005, 2006; Jul. 2007	64.5; c.69.9, c.80; 79.6	ICPS 2008a; Ministry of Justice; ICPS 2009 ¹⁰
Botswana	2000; 2004; May 2007	15.2; 25.1; 17.1	UN 7 th Survey; ICPS 2007; ICPS 2009
Burkina Faso	2000, 2001,2002, 2003, 2004, 2005, 2006, 2007	64.4, 61.6, 59.1, 47.8, 48.8, 43.7, 38.4, 46.3	Ministry of Justice ¹¹
Burundi	2005, 2006; Apr. 2007; Dec. 2007; May 2008; Dec. 2008	60.7, 65.3; 66.8; 71.1; 68.0; 65.2	Ministry of Justice; ICPS 2008a; Ministry of Justice 2007; ICPS 2009; Ministry of Justice 2008 ¹²
Cameroon	Jun. 2003; 2004/05, 2007, Dec. 2008	c.65; 65.6, 60.4, 62.5	ICPS 2008a; Ministry of Justice ¹³
Cape Verde	Jun. 1999	36.5	ICPS 2009
Central African Republic			Unavailable ¹⁴
Chad	Aug. 2005	58.0	ICPS 2009
Comoros	1998; 2007, 2008	c.50; 32.5, 37.9	ICPS 2009 ¹⁵ ; Administration Pénitentiaire ¹⁶
Congo (Brazzaville)	2006; 2008	c.40; c.70	ICPS 2008a; ICPS 2009
Congo, Democratic Republic	Jan. 2004; 2006	c.70; 70–80 ¹⁷	ICPS 2008a; ICPS 2009
Côte d'Ivoire	Mar. 2002; Dec. 2007	35.6; 28.5	ICPS 2008a; ICPS 2009
Djibouti	Nov. 1999	57.2	ICPS 2009
Egypt	2001, 2002; Dec. 2006	18.9, 16.7; 9.9	UN 8 th Survey; ICPS 2009 ¹⁸
Equatorial Guinea			Unavailable
Eritrea			Unavailable
<u>Ethiopia</u>	Eab 2006	c 40	Unavailable
Gambia	Iun 1999	18.5	ICPS 2009
Ghana	2005. 2006. 2007	26, 29, 5, 31, 6	Ghana Prisons Service ¹⁹
Guinea	mid-2002	51.3	ICPS 2009 ²⁰
Guinea-Bissau			Unavailable ²¹
Kenya	2004, 2005, 2006, 2007, 2008 (provisional)	44.5, 45.7, 46.2, 46.9, 45.4	Kenya Prisons Service Department ²²
Lesotho	2005; Jul. 2007; Dec. 2007, Dec. 2008	16.3; 16.8; 18.6, 20.6	ICPS 2007; ICPS 2009; Lesotho Correctional Service ²³
Liberia	2006; Aug. 2007	c.90; 97.3	U.S. State Department; ICPS 2009 ²⁴

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

Libya	Jun. 2007	50.1	ICPS 2009
Madagascar	1999; 2005, 2006	65.4; 65.0, 64.7	ICPS 2007; Ministry of Justice ²⁵
Malawi	2005, 2006, 2007, 2008	23, 23, 16.2, 22.7	Malawi Prisons Service ²⁶
Mali	2002; 2004; 2007, 2008	67.2; 88.7; 56.8, 52.6	ICPS 2007; ICPS 2009; Administration Pénitentiaire ²⁷
Mauritania	Sep. 2003	c.13	ICPS 2009
Mauritius	2000; 2005, 2006; Mar. 2007; Aug. 2008	24.5; 35.0, 18.9; 24.4; 29.9	UN 7 th Survey; UN 10 th Survey; ICPS 2008a; ICPS 2009 ²⁸
Morocco	2001, 2002; 2003, 2004; 2005, 2006	41.5, 40.6; 11.6, 17.0; 52.3, 46.5	UN 8 th Survey; UN 9 th Survey; UN 10 th Survey ²⁹
Mozambique	1999; 2005; Dec. 2006; 2007	72.9; 53; 41.8; c.30	ICPS 2008a; OSISA; Agencia de Informação de Moçambique; ICPS 2009 ³⁰
Namibia	Dec. 2001; Dec. 2007	5.2; 7.9	ICPS 2008a; ICPS 2009
Niger	2006	c.76	ICPS 2009
Nigeria	2004; Jan. 2007; Jul. 2008	64.3; 65.0; 67.8	ICPS 2007; ICPS 2008a; ICPS 2009 ³¹
Rwanda	2002; Oct. 2008	30.3; 26.9	ICPS 2008a; ICPS 2009
São Tomé and Príncipe	2005; Jul. 2006; Nov. 2007	75.0; 45.0; c.34	ICPS 2007; ICPS 2008a; ICPS 2009
Senegal	2002; Apr. 2007	33.1; 37.2	ICPS 2007; ICPS 2009
Seychelles	2006; 2007, 2008	19.7; 62.6, 50.1	ICPS 2007; Department of Internal Affairs ³²
Sierra Leone	2005; 2006; 2007; Apr. 2009	40; c.42.7; 53.7; 49.2	ICPS 2007; ICPS 2008a; ICPS 2008b; ICPS 2009
Somalia			Unavailable
South Africa	2000, 2002, 2003, 2004, 2005, Sep. 2006; 2007; Jan. 2008; Apr. 2009	33.9, 28.6, 27.0, 26.6, 28.9, 27.5; 30.0; 32.2; 30.0	Department of Correctional Services; ICPS 2008a; ICPS 2008b; ICPS 2009 ³³
Sudan	Mar. 2003	c.10	ICPS 2009
Swaziland	2005, 2006; 2007; Jun. 2008	42.8, 38.3; 31.5; 25.1	UN 10 th Survey; ICPS 2008a; ICPS 2009 ³⁴
Tanzania	Sep. 2006; Oct. 2008	44.0; 45.7	ICPS 2008a; ICPS 2009
Togo	Nov. 1998	55.4	ICPS 2009 ³⁵
Tunisia	Dec. 1996	22.7	ICPS 2009
Uganda	2002, 2003, 2004, 2005, 2006; Apr. 2007	63.8, 61.5, 62.1, 60.4, 57.4; 56.8	Uganda Prisons Department; ICPS 2009 ³⁶
Zambia	2000; Dec. 2005; 2007, 2008	25.5; 35.3; 33.0, 33.1	UN 7 th Survey; ICPS 2009; Zambia Prison Service ³⁷
Zimbabwe	2000; 2003, 2004; 2005; Jun. 2007	27.9; 31.7, 50.5; 29.7; 23.4	UN 7 th Survey; UN 9 th Survey; ICPS 2007; ICPS 2009

⁹ ICPS 2008a reports the same figure for 31 December 2004.

- 10 Figures for 2005 and 2006 are based on our 2007–2008 in-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 above 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.
- 11 Ministère de la Justice, *Annuaire Statistique de la Justice 2008* (Ouagadougou, November 2008), 117. Ministry of Justice figures are for 31 December of the given year. Figures reported in this source also show that the prison population almost doubled between 2000 and 2007, from 2,204 to 4,207. ICPS 2009 reports 58.3 percent for 2001.
- 12 Figures for 2005 and 2006 are based on our 2007–2008 in-country research, reportedly obtained from Ministère de la Justice, Direction Générale des Affaires Pénitentiaires, *Rapport Annuel, Exercice* 2005 and *Rapport Annuel, Exercice* 2006. The 2005 figure is also consistent with the figure reported in ICPS 2007. Figures for December 2007 and December 2008 are based on our 2009 in-country research, reportedly obtained from Timothée Bisumbagutira, Administration Pénitentiaire du Burundi, "Rapport d'activité du mois de décembre" (25 February 2008), 12, and "Rapport d'activité du mois de décembre 2008," (29 December 2008), 16.
- 13 The figure for 2004/05 is based on our 2007–2008 in-country research, obtained from Ministry of Justice statistics for the judicial year 2004/05. It is consistent with the figure reported in ICPS 2009. The figure for 2007 is based on our 2009 in-country research, calculated from the Ministry of Justice memo, "Point sur la transmission des états des prévenus et condamné à la chancellerie (année 2007)." Figures are handwritten and give totals for each category by region and prison. There appear to be several arithmetic errors in the totals given, and our estimates are based on recalculation using figures recorded for each prison. The figure for 2008 is based on the Ministry of Justice memo, "Point sur la transmission des états des prévenus et condamné à la chancellerie (December 2008)."
- 14 According to ICPS 2009, "In October 2007 in the two prisons in the capital, Bangui, pre-trial detainees comprised 49% 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.
- 15 Our 2007–2008 in-country researcher reported that, according to the Service Pénitencier National, there were 120 and 135 detainees in 2006 and 2007, respectively. However, recent total prison populations are unavailable. ICPS 2009 gives the total prison population (including pre-trial detainees/remand prisoners) at c.200 in 1998 based on information from a criminal justice expert in the Comoros. More recent prison population estimates are unavailable.
- 16 Based on information obtained from Ahamada Youssouf, Gardien en chef du maison d'arrêt, Direction Générale de l'Administration Pénitentiaire, 1 April 2009.
- 17 On the 2006 figure: "A 2006 United Nations report found that 70–80 percent of prisoners detained nationwide were in pre-trial detention." We use the midpoint (75 percent) in the Index.
- 18 The figure for 2002 is also reported in ICPS 2008a.
- 19 Figures for 2005 and 2006 are based on our 2007–2008 in-country research. Information was obtained from the Ghana Prisons Service, Annual Report 2005 (Accra, 2005), 21 and Annual Report 2006 (Accra, 2006), 17. The ICPS 2008a figure for 2006 is similar at 29 percent. The figure for 2007 from the Ghana Prisons Service is based on Ghana Prisons Service, Annual Report 2007 (Accra, 2007), 17 and 19. The figure is based on the daily average population of remand prisoners and total prisoners. The report also gives monthly figures. ICPS 2009 reports 30.8 percent for 2007.
- 20 Our 2007–2008 in-country research suggests that the total number of detainees registered in Conakry was 1,755 in 2005 and 1,760 in 2006, and that more than 85–95 percent of these were still awaiting judgment.
- 21 According to ICPS 2009: "2006 The country does not have formal prisons. Most prisoners are detained in makeshift detention facilities on military bases in Bissau and neighboring cities.—U.S. State Department Human Rights Report."
- Figures are from the Kenya Prisons Service Department as reported in Kenya National Bureau of Statistics, *Economic Survey* 2009 (Nairobi, 2009), 254, Table 15.15, and are based on daily average populations. The UN 10th Survey reported 48.7 percent for 2005 and 46.6 percent for 2006. These figures are based on a "selected day" (the day was not reported). ICPS 2009 reports a rate of 45.6 percent for September 2006.
- 23 Figures for December 2007 and 2008 are based on information provided by Manko Palime, Chief Officer, Lesotho Correctional Service, 2 March 2009. The 2007 figure is based on 525 pre-trial/remand and 2,818 total prisoners, and the 2008 figure on 534 and 2,592, respectively.
- U.S. Department of State, Country Reports on Human Rights Practices 2006 (Washington, D.C., 6 March 2007), available at www.state. gov/g/drl/rls/hrrpt/2006/78742.htm (last accessed 11 June 2008). The 2006 figure is based on Monrovia Central Prison, the largest prison, but is broadly consistent with the ICPS 2007 estimate of 91.1. According to the U.S. Country Reports on Human Rights Practices 2007 (11 March 2008), available at www.state.gov/g/drl/rls/hrrpt/2007/100489.htm: "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." In-country research in 2009, however, suggests lower rates of 65.0 percent in 2007 (909 pre-trial, 1,398 total) and 70.0 percent in 2008 (1,022 pre-trial and 1,461 total), based on information provided by a source at the Bureau of Rehabilitation and Corrections, Ministry of Justice. Further research is needed.
- 25 Figures for 2005 and 2006 are based on information provided to us in 2008 by the General Secretary of the Madagascar Action Plan, Presidency of the Republic of Madagascar, based on the 2005 and 2006 Annual Reports of the Direction of Penitentiary Administration, Ministry of Justice. The 2006 figure is equivalent to the figure given in ICPS 2009.

- 26 Figures for 2005 and 2006 are based on in-country research and reportedly obtained from the "Prison Population Daily Statistics Report of 16 August 2005" and "Prison Population Daily Statistics Report of 16 December 2006." Figures for 2007 and 2008 are based on information provided by C. J. Kainja, Assistant Commissioner of Prisons, Head of Research and Planning Unit, Malawi Prisons Service, on 6 March 2009. These latter figures are calculated based on average daily populations. ICPS reports similar figures: for 2005, 23.2 percent (ICPS 2007); for June 2007, 17.3 percent (ICPS 2008c); and for December 2007, 18.2 percent (ICPS 2009).
- 27 Information for 2007 and 2008 was provided by S.A. Touré, Directeur National, Direction Nationale de l'Administration Pénitentiaire et de l'Education Surveillée, on 11 March 2009. For 2007, rates are based on 2,810 pre-trial detainees/remand prisoners and 4,946 total prisoners, and for 2008, on 2,697 and 5,129, respectively.
- 28 Local sources are broadly consistent for 2007, but differ for 2006. According to Central Statistics Office, "Crime, Justice and Security Statistics, 2007," available at www.gov.mu/portal/goc/cso/ei759/toc.htm (last accessed 4 August 2009), "Nearly 75% of the prison detainees in 2006 and 2007 consisted of convicts, the remaining 25% being on remand and awaiting trial."
- 29 Figures for 2005 and 2006 are consistent with figures for December 2005 and December 2006 reported in ICPS 2008 and ICPS 2009. The large change between the rates reported for 2003 and 2004 versus 2005 and 2006 may be due to the way in which data were recorded in the UN Surveys. The 10th Survey provided information on "incarcerated persons: convicted awaiting the sentence," which made up over twice the number of "total persons awaiting trial or detention." The 9th Survey did not provide figures for this category.
- The 1999 estimate is from ICPS 2008 and is consistent with the figure of 72.9 percent for 2000 given in Open Society Initiative 30 for Southern Africa (OSISA), Mozambique: Justice Sector and the Rule of Law (London, 2006), 108, based on UNDP, The Prison System in Mozambique (New York, 2000). The 2005 estimate is from OSISA, Mozambique, 108, based on Government of Mozambique, Balanco do PES 2005 (Maputo, 2005), 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. The estimate is based on a total prison population of 12,396 inmates, of which 1,636 were awaiting trial and 3,545 "whose cases had not yet entered the court system." Incountry research in Mozambique also reported the following figures based on the Anuário Estatistico 2005 (p. 52): for 2005, 13,079 remand prisoners and 4,690 sentenced prisoners (or 73.6 percent pre-trial detainees), and for 2006, 12,759 remand prisoners and 5,036 sentenced prisoners (or 71.7 percent). The above figures are used instead because they are more consistent with most sources reviewed, including discussion of the decline in pre-trial detention rates. For 2007, there are several different local estimates as well based on our in-country research. According to Ministério da Planificação e Desenvolvimento, Balanço do Plano Económico e Social de 2008 (Maputo, 2008), 167, the rate was approximately 39 percent. According to Procurador Geral da República à Assembleia da República, Informação Anual de 2008 do Procurador-Geral da República à Assembleia da República (Maputo, 2008), 113, there were 7,027 pre-trial detainees/remand prisoners and 14,462 prisoners total, for a rate of 48.6 percent. Further information is needed about these discrepancies before these figures can be used.
- 31 In-country research provides an estimate of 56.3 percent for 2005, based on 84,051 pre-trial detainees/remand prisoners and 149,422 total prisoners, or 56.3 percent. Numbers are reportedly based on statistics supplied by the Nigerian Prison Service as published in the National Bureau of Statistics, Annual Abstract of Statistics 2007 (Abuja, 2007), 102.
- 32 Figures for 2007 and 2008 are from the Department of Internal Affairs, Prison Department, provided to us by the National Statistics Bureau. Note differences, however, with available figures from ICPS: ICPS 2007 gave a figure of 1.3 for 1999. That figure is not reported above because it differs significantly from other available figures. ICPS 2008c reported a figure of 40.3 for 2007, and ICPS 2009 a figure of 63.0 for 2008.
- 33 Figures for 2000–2006 are from "Department of Correctional Services, Annual Report 2005/05, communication with Department," as reported in Presidency of the Republic of South Africa, Development Indicators: Mid-term Review (Pretoria, 2007), 62. Figures from the UN surveys are broadly consistent with these figures: for 2000, 33.6 (UN 7th Survey, if we treat the number of pre-trial detainees as equal to "total persons incarcerated" minus "total persons sentenced to incarceration"); and for 2001 and 2002, 25.0 and 29.8, respectively (UN 8th Survey).
- 34 The UN 7th Survey suggests 1.6 percent in 2000. The figure is not reported above because it varies significantly from other available data.
- 35 Our in-country researcher collected information on two (of twelve prisons), as reported in Ministère de la Justice and Fonds Européen de Développement, "Projet d'appui à la reforme de la justice et la promotion des droits de l'homme (PAJDH) – Rapport du recensement numérisé des détenus de la prison civile de Lomé" (n.d.), 4, and "Projet d'appui à la reforme de la justice et la promotion des droits de l'homme (PAJDH) – Rapport du recensement numérisé des détenus de la prison civile de Sokodé" (n.d.), Table 2. In Lomé, figures for the period to 21 October 2008, give 1,227 pre-trial and 1,511 total prisoners, or 81.2 percent. In Sokodé, figures for the same period give 163 pre-trial and 231 total prisoners, or 70.6 percent.
- 36 Figures for 2002–2006 are from the Uganda Prisons Department, as reported in Uganda Bureau of Statistics, 2007 Statistical Abstract (Kampala, 2007), 23. ICPS 2007 reports 58 percent for 2006.
- 37 Figures for 2007 and 2008 are based on information provided to our in-country researcher by the Zambia Prison Service, Ministry of Home Affairs.

EFFICIENCY OF THE COURTS BASED ON PRE-TRIAL DETAINEES AS A PERCENTAGE OF TOTAL PRISON POPULATION

National Authorities' Reports in Index Research; International Centre for Prison Studies; and UN Surveys on Crime Trends

					SCALI	ED DA	TA:					
	RAW D	DATA:			Rankee	1			Scaled (Overall	0-100	
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007
Angola	58.9	58.9	58.9	58.9	34	36	39	38	41.7	41.7	41.7	41.7
Benin	64.5	69.9	80.0	79.6	39	42	46	46	35.6	29.8	18.8	19.2
Botswana	15.2	25.1	17.1	17.1	4	10	6	7	89.1	78.4	87.1	87.1
Burkina Faso	64.4	43.7	38.4	46.3	38	26	22	27	35.7	58.2	64.0	55.4
Burundi	60.7	60.7	65.3	71.1	35	38	43	43	39.7	39.7	34.7	28.4
Cameroon	65.0	65.6	60.4	60.4	40	41	40	39	35.1	34.4	40.1	40.1
Cape Verde	36.5	36.5	36.5	36.5	20	19	19	22	66.0	66.0	66.0	66.0
Central African Republic												
Chad	58.0	58.0	58.0	58.0	33	35	38	37	42.7	42.7	42.7	42.7
Comoros	50.0	32.5	32.5	32.5	28	16	17	19	51.4	70.4	70.4	70.4
Congo (Brazzaville)	40.0	40.0	40.0	40.0	21	21	23	24	62.2	62.2	62.2	62.2
Congo, Democratic Rep.	70.0	70.0	75.0	75.0	43	43	44	44	29.6	29.6	24.2	24.2
Cote d'Ivoire	35.6	28.5	28.5	28.5	19	12	14	14	67.0	74.7	74.7	74.7
Djibouti	57.2	57.2	57.2	57.2	32	34	36	36	43.5	43.5	43.5	43.5
Equatorial Guinea												
Eritrea												
Ethiopia												
Gabon	40.0	40.0	40.0	40.0	21	21	23	24	62.2	62.2	62.2	62.2
Gambia	18.5	18.5	18.5	18.5	6	6	7	8	85.6	85.6	85.6	85.6
Ghana	26.0	26.0	29.5	31.6	13	11	15	18	77.4	77.4	73.6	71.3
Guinea	51.3	51.3	51.3	51.3	30	30	33	31	49.9	49.9	49.9	49.9
Guinea-Bissau												
Kenya	44.5	45.7	46.2	46.9	27	28	30	29	57.3	56.0	55.5	54.7
Lesotho	16.3	16.3	16.3	18.6	5	5	5	9	87.9	87.9	87.9	85.5
Liberia	90.0	90.0	90.0	97.3	47	47	47	47	7.9	7.9	7 9	0.0
Madagascar	65.4	65.0	64.7	64.7	41	40	41	41	34.6	35.1	35.4	35.4
Malawi	23.0	23.0	23.0	16.2	10	9	11	6	80.7	80.7	80.7	88.1
Mali	23.0	23.0	23.0	10.2 E6 9	10	9	25	24	22.7	0.2	44.0	44.0
Mouritonio	12.0	12.0	12.0	10.0	72	40	35	54	52.7 01.5	9.5	44.0	44.0
Mauritina	73.0	73.0	18.0	73.0	3	4	4	10	91.5	91.5	91.5	91.5
Mauritius	24.5	35.0	18.9	24.4	11	17	8	12	79.0	67.6	85.1	79.2
Mozambique	72.9	53.0	41.8	30.0	44	32	25	15	26.5	48.1	60.3	/3.1
Namibia	5.2	7.9	7.9	7.9	1	1	1	1	100.0	97.1	97.1	97.1
Niger	76.0	76.0	76.0	76.0	46	45	45	45	23.1	23.1	23.1	23.1
Nigeria	64.3	64.3	65.0	65.0	37	39	42	42	35.8	35.8	35.1	35.1
Kwanda Sao Tomo and Drinaina	30.3	30.3	26.9	26.9	16	15	12	13	72.7	72.7	76.4	76.4
Sao Tome and Principe	75.0	75.0	45.0	34.0	45	44	29	21	24.2	24.2	56.8	68.7
Senegal	33.1	37.2	37.2	37.2	17	20	20	23	69.7	65.3	65.3	65.3
Seychelles	19.7	19.7	19.7	62.6	8	7	9	40	84.3	84.3	84.3	37.7
Sierra Leone	40.0	40.0	42.7	53.7	21	21	26	32	62.2	62.2	59.3	47.3
Somalia												
South Africa	33.9	28.9	27.5	30.0	18	13	13	15	68.8	74.3	75.8	73.1
Sudan	10.0	10.0	10.0	10.0	2	3	3	3	94.8	94.8	94.8	94.8
Swaziland	42.8	42.8	38.3	31.5	25	24	21	17	59.2	59.2	64.1	71.4
Tanzania	44.0	44.0	44.0	44.0	26	27	28	26	57.9	57.9	57.9	57.9
Togo	55.4	55.4	55.4	55.4	31	33	34	33	45.5	45.5	45.5	45.5
Uganda	63.8	60.4	57.4	56.8	36	37	37	34	36.4	40.1	43.3	44.0
Zambia	25.5	35.3	35.3	33.0	12	18	18	20	78.0	67.3	67.3	69.8
Zimbabwe	27.9	29.7	29.7	23.4	15	14	16	11	75.4	73.4	73.4	80.2
Algeria	27.3	43.4	43.2	11.3	14	25	27	4	76.0	58.5	58.7	93.4
Egypt	18.9	9.9	9.9	9.9	7	2	2	2	85.1	94.9	94.9	94.9
Libva	50.1	50.1	50.1	50.1	29	29	32	30	51.2	51.2	51.2	51.2
Morocco	41.5	52.3	46.5	46.5	24	31	31	28	60.6	48.9	55.2	55.2
Tunisia	22.7	22.7	22.7	22.7	9	8	10	10	81.0	81.0	81.0	81.0

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, which assesses 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 SSC 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. (Exceptions include Burundi and Rwanda.) 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 is about 676 days, which is roughly the estimated number of days to settle contract disputes in the Central African Republic (660 days) and the Democratic Republic of the Congo (685 days). Worldwide, contract disputes are settled most slowly in Timor-Leste (1,800 days), and most quickly in Singapore (150 days). On average, the region with the fastest contract dispute settlements is Eastern Europe and Central Europe (425 days), followed by the OECD (463 days), and that with the slowest is South Asia (1,053 days).⁵

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).⁶ 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 Libya and Somalia.

Data are unavailable for the following countries in the following year's 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 therefore used for the Index years 2000, 2002, and 2005.

¹ From www.doingbusiness.org (downloaded 13 May 2009). Figures used in the Index reflect numbers current as of this date. Note that earlier releases of these data may differ slightly.

² From www.doingbusiness.org/ExploreTopics/EnforcingContracts/ (last accessed 17 August 2009).

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/ExploreTopics/EnforcingContracts/ (last accessed 17 August 2009).

⁶ From www.doingbusiness.org/Methodology/Surveys/default2.aspx (last accessed 17 August 2009).

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.

NUMBER OF DAYS TO SETTLE A CONTRACT DISPUTE

World Bank's Doing Business Surveys

					SCAL	ED D	ATA:					
]	RAW DATA:				Ranke	d			Scaled			
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007
Angola	1011	1011	1011	1011	46	46	46	46	26.6	26.6	26.6	26.6
Benin	825	825	825	825	39	39	39	39	45.0	45.0	45.0	45.0
Botswana	987	987	987	987	43	43	43	43	29.0	29.0	29.0	29.0
Burkina Faso	458	446	446	446	10	10	10	10	81.4	82.6	82.6	82.6
Burundi	667	588	558	558	27	22	21	21	60.7	68.5	71.5	71.5
Cameroon	800	800	800	800	37	37	37	37	47.5	47.5	47.5	47.5
Cape Verde	425	425	425	425	7	7	7	7	84.7	84.7	84.7	84.7
Central African Republic	660	660	660	660	26	27	28	28	61.4	61.4	61.4	61.4
Chad	743	743	743	743	33	33	33	33	53.2	53.2	53.2	53.2
Comoros	506	506	506	506	14	14	15	16	76.6	76.6	76.6	76.6
Congo (Brazzaville)	560	560	560	560	20	20	22	22	71.3	71.3	71.3	71.3
Congo, Democratic Rep.	685	685	685	685	28	28	29	29	58.9	58.9	58.9	58.9
Cote d'Ivoire	770	770	770	770	35	35	35	35	50.5	50.5	50.5	50.5
Djibouti	1225	1225	1225	1225	50	50	50	50	5.4	5.4	5.4	5.4
Equatorial Guinea	553	553	553	553	19	19	20	20	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	29	29	30	30	58.4	58.4	58.4	58.4
Gabon	1070	1070	1070	1070	47	47	47	47	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	487	18	18	19	15	72.1	72.1	72.1	78.5
Guinea	276	276	276	276	2	2	2	2	99.4	99.4	99.4	99.4
Guinea-Bissau	1140	1140	1140	1140	48	48	48	48	13.9	13.9	13.9	13.9
Kenya	465	465	465	465	12	12	13	13	80.7	80.7	80.7	80.7
Lesotho	695	695	695	695	30	30	31	31	57.9	57.9	57.9	57.9
Liberia	1280	1280	1280	1280	51	51	51	51	0.0	0.0	0.0	0.0
Madagascar	871	871	871	871	41	41	41	41	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	40	40	40	40	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	34	34	34	34	52.5	52.5	52.5	52.5
Mozambique	1010	1010	1010	1010	44	44	44	44	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	17	17	18	19	72.8	72.8	72.8	72.8
Nigeria	730	730	457	457	32	32	11	11	54.5	54.5	81.5	81.5
Rwanda	395	310	310	310	3	3	3	3	87.6	96.0	96.0	96.0
Sao Tome and Principe	1185	1185	1185	1185	49	49	49	49	9.4	9.4	9.4	9.4
Senegal	780	780	780	780	36	36	36	36	49.5	49.5	49.5	49.5
Seychelles	720	720	720	720	31	31	32	32	55.4	55.4	55.4	55.4
Sierra Leone	515	515	515	515	15	15	16	17	75.7	75.7	75.7	75.7
Somalia												
South Africa	600	600	600	600	23	24	25	25	67.3	67.3	67.3	67.3
Sudan	810	810	810	810	38	38	38	38	46.5	46.5	46.5	46.5
Swaziland	972	972	972	972	42	42	42	42	30.5	30.5	30.5	30.5
Tanzania	462	462	462	462	11	11	12	12	81.0	81.0	81.0	81.0
Togo	588	588	588	588	22	22	24	24	68.5	68.5	68.5	68.5
Uganda	535	535	535	535	16	16	17	18	73.8	73.8	73.8	73.8
Zambia	471	471	471	471	13	13	14	14	80.1	80.1	80.1	80.1
Zimbabwe	410	410	410	410	6	6	6	6	86.1	86.1	86.1	86.1
Algeria	630	630	630	630	25	26	27	27	64.4	64.4	64.4	64.4
Egypt	1,010	1,010	1,010	1,010	44	44	44	44	26.7	26.7	26.7	26.7
Libya												
Morocco	615	615	615	615	24	25	26	26	65.8	65.8	65.8	65.8
Tunisia	565	565	565	565	21	21	23	23	70.8	70.8	70.8	70.8

Category:Rule of Law, Transparency, and CorruptionSub-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. Similar to other aspects of the rule of law, corruption is difficult to measure objectively. There are no "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.

Thus, for measurement, the Index of African Governance 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 (ICCR), 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.

Transparency International's CPI score for each year is based on up to twelve surveys and assessments that cover the previous two years. For the Index of African Governance, we use the 2008 CPI for our assessment of 2007, and so on.

In 2007 (corresponding to the 2008 TI CPI), scores ranged from a low of 1 (Somalia) to a high of 5.8 (Botswana). Botswana also received the best score in all five years covered by this Index. Other consistently strong performers included Mauritius (2nd in 2007), Cape Verde (3rd), and South Africa (4th). Along with Somalia, other countries with exceptionally poor corruption scores in 2007 included Chad, the Democratic Republic of the Congo, Guinea, the Sudan, and Equatorial Guinea.

A number of alternative sources were explored to measure public sector corruption. These sources 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 Index. Each was judged inappropriate for use in the Index of African Governance at this time because of their more limited coverage of countries. For further discussion of approaches to corruption measurement, see the Researcher's Report, "Measuring Corruption," by Oyinola Shyllon, in *Strengthening African Governance: Ibrahim Index of African Governance, Results and Rankings* 2008 (Cambridge, MA, 2008), 103–104.

Technical Notes

Each CPI score is based on up to twelve surveys and assessments spanning the previous two years (e.g., the 2007 CPI covered 2006 and 2007).² Sources may vary from year to year, which makes comparison over time problematic.

For 2006 and 2007, we use scores from the official 2007 and 2008 TI CPIs, respectively. Scores are available for all countries.

¹ For details, see the Internet Center for Corruption Research, "Survey Sources for the TI Corruption Perceptions Index (CPI) 2008," available at www.icgg.org/corruption.cpi 2008 sources.html (last accessed 2 April 2009).

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 ICCR, but are not used in the official TI CPI. The ICCR provides unofficial CPI "scores," which are averages of fewer than three surveys. In order to present data on all countries, the Index of African Governance uses these unofficial scores when official TI CPI scores are unavailable, generally in the years 2000, 2002, and 2005, as described 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 and are figures that provide useful information on their own, even if an aggregated score such as the CPI arguably might be more useful. It should be noted, however, that there are occasionally significant variations in the scores from various sources. Because they are based on less information, the scores that we report based on the ICCR are more affected by extreme values.

The Index of African Governance uses the following method to assign CPI scores for 2000, 2002, and 2005:

- (1) Because official TI CPI scores cover the previous two years, we use, when available, the 2008 TI CPI for 2007 (all countries are covered), the 2007 TI CPI for 2006 (all countries are covered), the 2006 TI CPI for 2005, the 2003 TI CPI for 2002, and the 2001 TI CPI for 2000.
- (2) When these scores are unavailable, we use the official TI CPI score from the previous year: e.g., 2007 TI CPI for 2007 and 2006 TI CPI for 2006.
- (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 TI/ICCR data from the following year (2004 for our 2002 and so on). The official TI CPI for this year is used if available, and if not, we use the unofficial data, if there are two surveys.
- (6) 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 Index of African Governance score for the year 2002 (assigned using the method described above).

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 methods of substitution and found that values were generally similar using 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 ICCR, 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–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).

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, Morocco, 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: Algeria (2.0, 3.4), Gabon (1.7, 3.6), Lesotho (2.8, 4.3), and the Sudan (1.7, 2.0).

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

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

PUBLIC SECTOR CORRUPTION

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

							ED D	ATA:						
F	RAW DATA:					Ranke	d			Scaled Overall 0-100				
	2000	2005	2006	2007	2	2000	2005	2006	2007	2000	2005	2006	2007	
Angola	1.7	2.2	2.2	1.9		49	40	38	41	14.0	24.0	24.0	18.0	
Benin	3.5	2.5	2.7	3.1		14	27	24	16	50.0	30.0	34.0	42.0	
Botswana	6.0	5.6	5.4	5.8		1	1	1	1	100.0	92.0	88.0	96.0	
Burkina Faso	3.0	3.2	2.9	3.5		20	11	17	10	40.0	44.0	38.0	50.0	
Burundi	2.3	2.4	2.5	1.9		33	31	32	41	26.0	28.0	30.0	18.0	
Cameroon	2.0	2.3	2.4	2.3		42	38	34	37	20.0	26.0	28.0	26.0	
Cape Verde	3.6	4.6	4.9	5.1		10	3	3	3	52.0	72.0	78.0	82.0	
Central African Republic	2.3	2.4	2.0	2		33	31	47	39	26.0	28.0	20.0	20.0	
Chad	1.4	2.0	1.8	1.6		52	50	51	50	8.0	20.0	16.0	12.0	
Comoros	2.7	2.4	2.6	2.5		25	31	28	35	34.0	28.0	32.0	30.0	
Congo (Brazzaville)	2.2	2.2	2.1	1.9		35	40	41	41	24.0	24.0	22.0	18.0	
Congo, Democratic Rep.	1.9	2.0	1.9	1.7		45	50	48	48	18.0	20.0	18.0	14.0	
Cote d'Ivoire	2.4	2.1	2.1	2		32	47	41	39	28.0	22.0	22.0	20.0	
Diibouti	27	2.4	2.9	3		25	31	17	19	34.0	28.0	38.0	40.0	
Djibouti Equatorial Cuinaa	17	2.1	1.9	17		<u>_</u> 0	47	48	48	14.0	22.0	18.0	14.0	
Equatorial Guillea	3.1	2.1	2.8	2.6		10	18	20	30	12.0	38.0	36.0	32.0	
Effuea	2.7	2.5	2.0	2.6		17	21	20	30	44.0	28.0	28.0	32.0	
Gabon	3.2	2.4	2.4	3.1		20	47	11	16	44.0	20.0	20.0	42.0	
Gaudia	2.0	3.0	3.3	1.0		28	17	11	10	32.0	40.0	46.0	42.0	
Chana	2.5	2.5	2.3	1.9		31	27	30	41	30.0	30.0	26.0	10.0	
Guinas	3.4	3.3	3.7	3.9		16	8	8	8	48.0	46.0	54.0	58.0	
Guinea Bissou	1.8	1.9	1.9	1.6		47	53	48	50	16.0	18.0	18.0	12.0	
Vonua	4.3	2.2	2.2	1.9		8	40	38	41	66.0	24.0	24.0	18.0	
Kellya	2.0	2.2	2.1	2.1		42	40	41	38	20.0	24.0	22.0	22.0	
Lesotno	3.6	3.2	3.3	3.2		10	11	11	14	52.0	44.0	46.0	44.0	
Liberia	2.1	2.2	2.1	2.4		39	40	41	36	22.0	24.0	22.0	28.0	
Madagascar	1.7	3.1	3.2	3.4		49	14	14	12	14.0	42.0	44.0	48.0	
Malawi	3.2	2.7	2.7	2.8		17	22	24	22	44.0	34.0	34.0	36.0	
Mali	3.0	2.8	2.7	3.1		20	20	24	16	40.0	36.0	34.0	42.0	
Mauritania	5.4	3.1	2.6	2.8		2	14	28	22	88.0	42.0	32.0	36.0	
Mauritius	4.5	5.1	4.7	5.5		7	2	4	2	70.0	82.0	74.0	90.0	
Mozambique	2.2	2.8	2.8	2.6		35	20	20	30	24.0	36.0	36.0	32.0	
Namibia	5.4	4.1	4.5	4.5		2	6	5	6	88.0	62.0	70.0	70.0	
Niger	2.0	2.3	2.6	2.8		42	38	28	22	20.0	26.0	32.0	36.0	
Nigeria	1.0	2.2	2.2	2.7		53	40	38	27	0.0	24.0	24.0	34.0	
Rwanda	3.5	2.5	2.8	3		14	27	20	19	50.0	30.0	36.0	40.0	
Sao Tome and Principe	3.6	2.7	2.7	2.7		10	22	24	27	52.0	34.0	34.0	34.0	
Senegal	2.9	3.3	3.6	3.4		23	8	9	12	38.0	46.0	52.0	48.0	
Seychelles	3.8	3.6	4.5	4.8		9	7	5	5	56.0	52.0	70.0	76.0	
Sierra Leone	2.2	2.2	2.1	1.9		35	40	41	41	24.0	24.0	22.0	18.0	
Somalia	2.1	2.1	1.4	1		39	47	53	53	22.0	22.0	8.0	0.0	
South Africa	4.8	4.6	5.1	4.9		5	3	2	4	76.0	72.0	82.0	78.0	
Sudan	1.8	2.0	1.8	1.6		47	50	51	50	16.0	20.0	16.0	12.0	
Swaziland	3.0	2.5	3.3	3.6		20	27	11	9	40.0	30.0	46.0	52.0	
Tanzania	2.2	2.9	3.2	3		35	18	14	19	24.0	38.0	44.0	40.0	
Торо	2.6	2.4	2.3	2.7		28	31	36	27	32.0	28.0	26.0	34.0	
Uganda	1.9	2.7	2.8	2.6		45	22	20	30	18.0	34.0	36.0	32.0	
Zambia	2.6	2.6	2.6	2.8		28	26	28	22	32.0	32.0	32.0	36.0	
Zimbahwe	2.9	2.4	21	1.8		23	31	41	47	38.0	28.0	22.0	16.0	
Algeria	2.0	3.1	3.0	3.2		25	14	16	14	34.0	42.0	40.0	44.0	
Fount	3.6	3.3	2.9	2.8		10	8	17	22	52.0	46.0	38.0	36.0	
Egypt	2.1	2.7	2.5	2.0		30	22	30	30	0.50	34.0	30.0	32.0	
Libya	2.1	3.2	2.0	2.0		39	11	10	30	22.0	44.0	50.0	52.0	
Tunicio	4./	J.Z	4.0	3.0		4		7	7	74.0	72.0	64.0	00.0	
i unisia	5.3	4.0	4.2	4.4		4	3	/	1	86.0	72.0	04.0	0.80	

III - PARTICIPATION AND HUMAN RIGHTS

The political good of political freedom is essential to good governance. It includes both the ability to participate freely in politics, 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 constitute good governance are difficult to exercise. When government is working well, political participation means that the provision of political goods reflects the preferences of each country's citizens.

Political participation can take a variety of forms, from individual communications with elected officials to mass protests, from consensus decision-making in village or town meetings, to active deliberation between citizen groups and members of government. There is a large literature studying these many aspects of political participation, which highlights well the difficulties of measurement in this area—particularly when attempting to compare across a broad range of countries and time periods. Indeed, measuring the important quality of "deliberative democracy" has only been done hitherto for particular communities in particular time periods.¹ Thus, in the Index, which studies all African countries, we necessarily focus on a particular aspect of political participation: participation in elections. In this sub-category of the Index, we assess whether the government in office during the majority of a given year (both executive and legislative) came to power through "free and fair" and competitive elections. Thus, the indicators in this sub-category provide a blunt measurement of participation at this most basic level. The authors hope that others will build on this assessment with detailed country studies into other aspects of political participation.

The second sub-category under Participation and Human Rights focuses on civil and political rights—what are also called "first generation rights." But, human rights, in fact, are assessed throughout the Index. The protection and promotion of universal human rights are so fundamental to this project that they are evident in every single category. 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 the category of Safety and Security, through indicators on intrastate (including ethnic) conflict. Analysts of particular countries would do well to use available country-specific information to study differences in the quality of governance for vulnerable groups in each society.

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

¹ On deliberative democracy, see, for example, Jon Elster (ed.), *Deliberative Democracy* (Cambridge, 1998); Amy Gutmann and Dennis Thompson, Why Deliberative Democracy? (Princeton, 2004); Gianpaolo Baiocchi, Militants and Citizens: The Politics of Participatory Democracy in Porto Alegre (Palo Alto, 2005).

In this category in 2007, the top ranked country was Mauritius, followed by São Tomé and Príncipe, Liberia, Cape Verde, Botswana, Benin, South Africa, Niger, Ghana, and Namibia. All of these countries benefit in this year from high scores on the elections indicators, suggesting that the governments in office during most of 2007 in those countries were elected in relatively free, fair, and competitive elections. Several of these countries also show major room for improvement in terms of Respect for Civil and Political Rights. For instance, declines in this area drove declines in the category scores for Participation and Human Rights in Botswana, Liberia, and South Africa between 2006 and 2007. Niger was ranked among the best countries in the continent in terms of its electoral indicators, but mid-range (20th) in terms of Respect for Civil and Political Rights. Events in Niger in 2009 are also not captured in this year's Index.

The worst performers in this category in 2007 included, from the worst up, Somalia, Eritrea, the Sudan, Libya, Egypt, Equatorial Guinea, Swaziland, Guinea, Angola, and Côte d'Ivoire. The ratings of all of these countries were brought down by low scores in the Civil and Political Rights sub-category. In addition, the governments of all of these countries in 2007 were not elected in free, fair, and competitive elections. Several were governed by transitional governments in which promised elections had not yet taken place (Angola, Côte d'Ivoire). Several were openly authoritarian regimes (Libya) or absolute monarchies (Swaziland). Several held elections, but these elections were deeply flawed (Egypt, the Sudan).

In this category, more than in any other, possibilities for year-to-year changes in governance performance have been evident. In particular, for several formerly authoritarian countries near the bottom of the list, bringing to office new governments through even partially free, fair, and competitive elections has meant major year-to-year improvements in category scores. (Likewise, the overthrow of elected governments can mean major declines.) Given that our elections indicators are such blunt measures of improvements and declines in this area, in order fully to understand changes over time in this category readers should be sure to review score changes in the sub-category of Respect for Civil and Political Rights. For instance, the category scores for the Democratic Republic of the Congo (DRC) showed notable improvement between 2006 and 2007 due to the inauguration of a new president and National Assembly, brought to office in elections judged to be generally free and fair (although also flawed) by the international community. Nevertheless, the sub-category of Respect for Civil and Political Rights reveals only minor advances: there is improvement between 2006 and 2007 in terms of Respect for Civil Rights, but scores for other indicators remain relatively stable—and low.

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)'s Election Guide; the Africa Elections Database; Economist Intelligence Unit country reports and profiles; BBC News country profiles; news archives from Integrated Regional Information Networks (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 has explored the use of other sources such as Freedom House's well-respected Freedom in the World survey. We chose not to use that particular source because its methodology was not in keeping with our own, given its reliance on surveys 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 these results. A score of "2" indicates fully free and fair; "1" indicates partially free and fair; and "0" indicates not free and fair.² Countries in which the current head of state did not come to power through elections are also assigned a "0."³ 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? Similar to executive elections, a score of "2" indicates fully free and fair; "1" indicates partially free and fair; and "0" indicates not free and fair.⁴

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 fifty-three African countries.⁵ 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 2009.03.27, (2009), available at www. humanrightsdata.org), as well as additional coding provided to us by the CIRI team. 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 for 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 CIRI Human Rights Dataset 2009. 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's *Country Reports on Human Rights Practices* and Amnesty International's *Annual Report* for the years in question.

² For countries with parliamentary systems such as Botswana, where the legislature selects the head of state, scores are based on the legislative elections.

³ 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.

⁴ In countries with multiple legislative chambers, this indicator is based on the lower house, which is generally the more directly elected body.

⁵ Some useful references and websites are: Office of the United Nations High Commissioner for Human Rights (OHCHR), available at www.ohchr.org; United Nations Development Programme (UNDP), Human Development Report 2000: Human Rights and Human Development, available at http://hdr.undp.org/en/reports/global/hdr2000/; Human Rights Impact Resource Centre, available at www.human-rightsimpact.org; Amnesty International, annual reports and other documents available at www.amnesty.org; Human Rights Watch, available at 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, 2006, available at http://daccessdds.un.org/doc/UNDOC/GEN/G06/419/60/PDF/G0641960.pdf?OpenElement (last accessed 20 July 2009).

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 CIRI Human Rights Dataset 2009, as well as additional coding provided to us by the CIRI team (as detailed in the notes to this indicator). 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 U.S. State Department's *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 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 the use of alternative sources.⁶

3. *Press Freedom Index*, from Reporters Without Borders (with technical assistance from the Statistics Institute of the University of Paris). These 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. 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.⁷ 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 2009, as well as additional coding provided to us by the CIRI team (as detailed in the notes to this indicator). 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's *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.

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).

⁶ See also Steven P. Poe, Sabine C. Carey, and Tanya C. Vazquez. "How are these Pictures Different? A Quantitative Comparison of the U.S. State Department and Amnesty International Human Rights Reports, 1976–1995," *Human Rights Quarterly*, XXIII (2001), 650–677.

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). 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 www.un.org/womenwatch/daw/cedaw/cedaw.htm; the UN Division for the Advancement of Women, available at www.un.org/womenwatch/daw/index.html; the Gender and Social Development program of the UN Commission for Africa, available at www.uneca.org/eca_programmes/acgd/default.htm; the UN Development Fund for Women, available at 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/ (last accessed 30 August 2008).
- 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).

- 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).
- 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).

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

PARTICIPATION AND HUMAN RIGHTS RANKINGS (LISTED BY 2007 SCORE)

1	Mauritius	95.5
2	Sao Tome and Principe	91.5
3	Liberia	87.2
4	Cape Verde	84.8
5	Botswana	84.3
6	Benin	83.7
7	South Africa	82.0
8	Niger	81.4
9	Ghana	80.5
10	Namibia	76.3
11	Madagascar	75.0
12	Seychelles	74.8
13	Lesotho	74.2
14	Mali	74.1
15	Guinea-Bissau	73.2
16	Burkina Faso	72.3
17	Malawi	70.9
18	Mauritania	69.5
19	Sierra Leone	69.2
20	Gambia	68.4
21	Rwanda	68.4
22	Tanzania	66.9
23	Comoros	66.5
24	Zambia	65.8
25	Mozambique	64.8
26	Senegal	63.8
27	Uganda	63.1
28	Central African Republic	61.2
29	Burundi	60.9
30	Algeria	60.7
31	Kenya	59.3
32	Gabon	56.0
33	Congo, Democratic Republic	54.2
34	Cameroon	53.7
35	Djibouti	48.9
36	Togo	45.9
37	Tunisia	45.3
38	Morocco	44.3
39	Nigeria	43.3
40	Congo (Brazzaville)	42.5
41	Zimbabwe	40.8
42	Ethiopia	38.1
43	Chad	33.4
44	Cote d'Ivoire	25.3
45	Angola	24.5
46	Guinea	23.7
47	Swaziland	23.2
48	Equatorial Guinea	20.6
49	Egypt	18.9
50	Libya	15.6
51	Sudan	11.9
52	Eritrea	10.3
53	Somalia	4.9

PARTICIPATION AND HUMAN RIGHT'S CATEGORY SCORES (LISTED BY COUNTRY "A" TO "Z")

	2000	2002	2005	2006	2007
Angola	22.5	23.1	28.1	29.3	24.5
Benin	93.0	83.6	76.4	81.1	83.7
Botswana	90.1	89.1	86.9	87.5	84.3
Burkina Faso	46.9	54.9	57.5	70.3	72.3
Burundi	20.4	21.6	28.6	61.0	60.9
Cameroon	35.5	36.0	53.9	54.1	53.7
Cape Verde	71.3	90.1	90.9	84 1	84.8
Central African Republic	66.2	69.9	59.8	60.4	61.2
Chad	52.9	54.5	43.5	30.3	33.4
Comoros	38.8	38.8	59.1	73.4	66.5
Congo (Brazzaville)	29.6	43.7	42.6	12.6	42.5
Congo Democratic Ren	8.5	16.2	14.3	42.0	42.3 54.2
Cote d'Ivoire	25.6	28.7	20.8	22.0	25.3
Diibouti	57.0	57.0	42.0	40.9	23.5
Equatorial Guinea	30.9	20.9	43.9	49.0	48.9
Eritrea	30.8	30.8	17.0	20.5	20.8
Ethiopia	24.2	17.0	12.0	12.2	10.5
Gabon	24.3	47.2	44.9	41.7	38.1
Cambia	64.8	50.7	43.9	42.8	56.0
Gambia	31.5	55.7	49.2	43.3	68.4
Ghana	70.2	77.5	80.0	80.2	80.5
Guinea	62.1	47.2	30.6	25.8	23.7
Guinea-Bissau	73.6	66.3	55.1	76.4	73.2
Kenya	61.5	64.3	66.6	63.8	59.3
Lesotho	70.9	74.6	72.8	75.7	74.2
Liberia	59.7	60.2	39.3	88.1	87.2
Madagascar	80.1	68.1	68.2	75.0	75.0
Malawi	73.9	73.4	71.3	69.4	70.9
Mali	47.0	61.6	76.4	74.7	74.1
Mauritania	29.1	49.9	54.8	31.1	69.5
Mauritius	91.1	88.2	95.4	92.2	95.5
Mozambique	67.6	71.8	70.6	70.5	64.8
Namibia	79.7	78.9	76.9	75.3	76.3
Niger	71.9	72.4	82.9	79.7	81.4
Nigeria	47.4	47.7	43.5	44.6	43.3
Rwanda	25.4	23.8	67.1	70.2	68.4
Sao Tome and Principe	85.2	91.5	93.8	89.7	91.5
Senegal	79.1	86.9	82.5	81.9	63.8
Seychelles	78.5	78.5	77.1	76.2	74.8
Sierra Leone	49.9	77.9	66.6	69.2	69.2
Somalia	8.0	8.0	6.4	7.3	4.9
South Africa	90.7	91.2	86.9	86.4	82.0
Sudan	10.8	12.6	16.1	12.8	11.9
Swaziland	25.1	28.2	23.3	29.5	23.2
Tanzania	42.3	72.5	62.8	65.7	66.9
Togo	42.9	41.1	39.0	44.4	45.9
Uganda	30.8	51.1	46.5	61.4	63.1
Zambia	44.8	71.9	65.9	67.0	65.8
Zimbabwe	37.7	46.0	41.0	42.7	40.8
Algeria	45.1	41.0	62.3	54.0	60.7
Egypt	24.7	22.6	18.6	19.2	18.9
Libva	16.4	14.9	13.3	16.3	15.6
Morocco	33.2	37.0	41.7	48.7	44.3
Tunisia	46.1	47.9	46.5	47.2	45.3

PARTICIPATION AND HUMAN RIGHTS RANK (LISTED BY COUNTRY "A" TO "Z")

	2000	2002	2005	2006	2007
Angola	48	46	44	44	45
Benin	1	7	12	8	6
Botswana	4	4	5	4	5
Burkina Faso	27	26	25	19	16
Burundi	49	48	43	27	29
Cameroon	35	41	28	29	34
Cape Verde	13	3	3	6	4
Central African Republic	17	18	23	28	28
Chad	23	27	36	42	43
Comoros	33	39	24	17	23
Congo (Brazzaville)	40	36	37	39	40
Congo. Democratic Rep.	52	50	50	50	33
Cote d'Ivoire	42	43	46	46	44
Diibouti	22	24	33	31	35
Equatorial Guinea	39	42	48	47	48
Eritrea	47	49	52	52	52
Ethiopia	46	33	32	40	42
Gabon	18	20	34	37	32
Gambia	37	25	20	36	20
Gamoia	15	25	29	30	20
Gnana	10	24	42	45	9
Guinea	13	34	42	40	40
Guinea-Dissau Kenya	11	20	20	11	15
Lasatha	20	21	10	25	31
Lesotilo	14	12	13	13	13
Lібепа	21	23	40	3	3
Madagascar	6	19	16	15	11
Malawi	10	13	14	21	17
Malı	26	22	11	16	14
Mauritania	41	30	27	41	18
Mauritius	2	5	1	1	1
Mozambique	16	17	15	18	25
Namibia	7	8	10	14	10
Niger	12	15	6	10	8
Nigeria	25	32	35	34	39
Rwanda	43	45	17	20	21
Sao Tome and Principe	5	1	2	2	2
Senegal	8	6	7	7	26
Seychelles	9	9	9	12	12
Sierra Leone	24	10	19	22	19
Somalia	53	53	53	53	53
South Africa	3	2	4	5	7
Sudan	51	52	49	51	51
Swaziland	44	44	45	43	47
Tanzania	32	14	21	24	22
Togo	31	37	41	35	36
Uganda	38	28	31	26	27
Zambia	30	16	20	23	24
Zimbabwe	34	35	39	38	41
Algeria	29	38	22	30	30
Egypt	45	47	47	48	49
Libya	50	51	51	49	50
Morocco	36	40	38	32	38
Tunisia	28	31	30	33	37

PARTICIPATION AND HUMAN RIGHTS SUMMARY OF INDICATORS AND PRINCIPAL SOURCES

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
2	Were these executive elections contested by the opposition?	in each country. Key sources include the International Foundation for Electoral Systems (IFES)'s Election
3	Was the current legislature elected through free and fair elections?	Guide; the Africa Elections Database; Economist Intelligence Unit country reports and profiles; BBC
4	Were these legislative elections contested by the opposition?	(produced by the UN Office for the Coordination of Humanitarian Affairs) and from allAfrica.com.

Sub-Category 1: Participation in Elections

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 2009 (David L. Cingranelli and David L. Richards, <i>The Cingranelli- Richards</i> (CIRI) Human Rights Data Project, Version 2009.03.27, (2009), 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 2009
7	Press freedom	The "Press Freedom Index" by Reporters without Borders
8	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 2009

	Free & Fair	Opposition Part.	Free & Fair	Opposition Part.
	Executive Elections	in Exec. Elections	Legislative Elections	in Leg. Elections
Angola	1 ₀	0	0	0
Benir	2	1	2	1
Botswana	1 2	1	2	1
Burkina Fasc) 1	1	1	1
Burund	1	1	1	1
Cameroor	1 1	1	0	1
Cape Verde	1	1	2	1
Central African Republic	1	1	1	1
Chac	0	0	0	1
Comoros	5 1	1	1	1
Congo (Brazzaville)	0	0	0	1
Congo, Democratic Rep	. 1	1	1	1
Cote d'Ivoire	0	0	0	0
Djibout	i 1	0	0	1
Equatorial Guinea	1 ₀	0	0	0
Eritrea	1 O	0	0	0
Ethiopia	1 ₀	1	0	1
Gabor	0	1	0	1
Gambia	l 1	1	1	1
Ghana	1 2	1	1	1
Guinea	0	0	0	0
Guinea-Bissau	L 1	1	1	1
Kenya	1	1	1	1
Lesothe) 1	1	1	1
Liberia	2	1	2	1
Madagasca	r 1	1	1	1
Malaw	1	1	1	1
Mal	i 1	1	1	1
Mauritania	1	1	1	1
Mauritius	2	1	2	1
Mozambique	1	1	1	1
Namibia	ì 1	1	1	1
Niger	2	1	2	1
Nigeria	1 O	1	0	1
Rwanda	l 1	1	1	1
Sao Tome and Principe	2	1	2	1
Senega	1	1	2	0
Seychelles	s 1	1	1	1
Sierra Leone	1	1	1	1
Somalia	1 0	0	0	0
South Africa	2	1	2	1
Sudar	0	0	0	0
Swaziland	0	0	0	0
Tanzania	ı 1	1	1	1
Togo	0	1	1	0
Uganda	1	1	1	1
Zambia	1	1	1	1
Zimbabwe	0	1	0	1
Algeria	1	1	1	1
Egypt	t o	0	0	0
Libya	u 0	0	0	0
Morocco	0 0	0	1	1
Tunisia	0	1	0	1

PARTICIPATION AND HUMAN RIGHTS

a) Participation in Elections

SUMMARY OF RAW DATA (2007)

b) Respect for Civil and Political Rights

Physical	Civil	Press	Women's	
Integrity Rights	Rights	Freedom	Rights	
2	4	26.5	4	
5	9	17.0	3	
7	9	23.5	2	
6	9	21.5	3	
3	5	43.4	3	
3	5	36.0	2	
7	11	14.0	4	
3	3	22.5	3	
4	2	36.5	2	
5	4	28.0	4	
4	6	24.5	4	
1	4	50.5	2	
3	5	27.0	3	
6	6	50.3	4	
3	3	65.3	4	
2	0	114.8	4	
1	2	63.0	2	
7	5	31.5	3	
5	8	48.3	4	
5	11	9.0	3	
2	4	33.5	4	
7	8	33.5	4	
3	3	23.8	2	
6	10	29.5	4	
6	10	25.3	4	
6	8	20.0	5	
5	8	26.8	4	
5	10	16.5	4	
4	7	15.5	4	
6	11	8.5	7	
4	5	23.0	3	
6	8	8.5	5	
5	6	25.5	4	
2	4	49.8	2	
5	4	58.9	7	
8	11		4	
5	7	25.0	4	
7	6	33.0	6	
6	8	39.5	3	
0	0	71.5	0	
2	8	13.0	5	
1	0	55.8	2	
5	3	54.5	3	
5	5	18.0	3	_
4	4	15.2	3	
3	2	28.0	5	
5	6	21.5	2	
1	1	62.0	4	
4	3	40.5	3	
3	4	58.0	2	
3	0	66.5	3	
4	1	33.3	5	
4	2	57.0	3	

PARTICIPATION AND HUMAN RIGHTS SUMMARY OF

a) Participation in Elections

	Free & Fair Executive Elections	Opposition Participation in Executive Elections	Free & Fair Legislative Elections	Opposition Participation in Legislative Elections
Angola	0.0	0.0	0.0	0.0
Benin	100.0	100.0	100.0	100.0
Botswana	100.0	100.0	100.0	100.0
Burkina Faso	50.0	100.0	50.0	100.0
Burundi	50.0	100.0	50.0	100.0
Cameroon	50.0	100.0	0.0	100.0
Cape Verde	50.0	100.0	100.0	100.0
Central African Republic	50.0	100.0	50.0	100.0
Chad	0.0	0.0	0.0	100.0
Comoros	50.0	100.0	50.0	100.0
Congo (Brazzaville)	0.0	0.0	0.0	100.0
Congo. Democratic Rep.	50.0	100.0	50.0	100.0
Cote d'Ivoire	0.0	0.0	0.0	0.0
Djibouti	50.0	0.0	0.0	100.0
Equatorial Guinea	0.0	0.0	0.0	0.0
Eritrea	0.0	0.0	0.0	0.0
Ethiopia	0.0	100.0	0.0	100.0
Gabon	0.0	100.0	0.0	100.0
Gambia	50.0	100.0	50.0	100.0
Ghana	100.0	100.0	50.0	100.0
Guinea	0.0	0.0	0.0	0.0
Guinea-Bissau	50.0	100.0	50.0	100.0
Kenya	50.0	100.0	50.0	100.0
Lesotho	50.0	100.0	50.0	100.0
Liberia	100.0	100.0	100.0	100.0
Madagascar	50.0	100.0	50.0	100.0
Malawi	50.0	100.0	50.0	100.0
Mali	50.0	100.0	50.0	100.0
Mauritania	50.0	100.0	50.0	100.0
Mouritius	100.0	100.0	100.0	100.0
Mauritius	50.0	100.0	50.0	100.0
Mozambique	50.0	100.0	50.0	100.0
Namioia	100.0	100.0	100.0	100.0
Niger	0.0	100.0	0.0	100.0
Rwanda	50.0	100.0	50.0	100.0
Sao Tome and Principe	100.0	100.0	100.0	100.0
San Tome and Emergel	50.0	100.0	100.0	0.0
Servehalles	50.0	100.0	50.0	100.0
Sigrra Loong	50.0	100.0	50.0	100.0
Siena Leone	0.0	0.0	0.0	0.0
	100.0	100.0	100.0	100.0
South Africa	100.0	100.0	100.0	100.0
Sudan	0.0	0.0	0.0	0.0
Swaziland	0.0	0.0	0.0	0.0
Tanzania	50.0	100.0	50.0	100.0
10g0 Liganda	0.0	100.0	50.0	0.0
Uganda Zambia	50.0	100.0	50.0	100.0
Zaiii0ia	50.0	100.0	50.0	100.0
Algoria	0.0	100.0	0.0	100.0
Aigena	50.0	100.0	50.0	100.0
Egypt	0.0	0.0	0.0	0.0
Libya	0.0	0.0	0.0	0.0
Morocco	0.0	0.0	50.0	100.0
Tunisia	0.0	100.0	0.0	100.0

INDEX SCORES AND CATEGORY CALCULATIONS (2007)

b) Respect for Civil and Political Rights

Physical Integrity Rights	Civil Rights	Press Freedom	Women's Rights	Participation in Election Sub-Score	Respect for Civil and Political Rights Sub-Score	Participation and Human Rights 2007	
25.0	33.3	80.8	57.1	0.0	49.1	24.5	
62.5	75.0	89.5	42.9	100.0	67.5	83.7	
87.5	75.0	83.5	28.6	100.0	68.6	84.3	
75.0	75.0	85.4	42.9	75.0	69.6	72.3	
37.5	41.7	65.3	42.9	75.0	46.8	60.9	
37.5	41.7	72.1	28.6	62.5	45.0	53.7	
87.5	91.7	92.2	57.1	87.5	82.1	84.8	
37.5	25.0	84.4	42.9	75.0	47.4	61.2	
50.0	16.7	71.6	28.6	25.0	41.7	33.4	
62.5	33.3	79.4	57.1	75.0	58.1	66.5	
50.0	50.0	82.6	57.1	25.0	59.9	42.5	
12.5	33.3	58.8	28.6	75.0	33.3	54.2	
37.5	41.7	80.3	42.9	0.0	50.6	25.3	
75.0	50.0	59.0	57.1	37.5	60.3	48.9	
37.5	25.0	45.3	57.1	0.0	41.2	20.6	
25.0	0.0	0.0	57.1	0.0	20.5	10.3	
12.5	16.7	47.4	28.6	50.0	26.3	38.1	
87.5	41.7	76.2	42.9	50.0	62.1	56.0	
62.5	66.7	60.9	57.1	75.0	61.8	68.4	
62.5	91.7	96.8	42.9	87.5	73.5	80.5	
25.0	33.3	74.4	57.1	0.0	47.5	23.7	
87.5	66.7	74.4	57.1	75.0	71.4	73.2	Not
37.5	25.0	83.3	28.6	75.0	43.6	59.3	e: S
75.0	83.3	78.0	57.1	75.0	73.4	74.2	ee i
75.0	83.3	81.8	57.1	100.0	74.3	87.2	ndi
75.0	66.7	86.7	71.4	75.0	75.0	75.0	cate
62.5	66.7	80.5	57.1	75.0	66.7	70.9	or d
62.5	83.3	89.9	57.1	75.0	73.2	74.1	esci
50.0	58.3	90.8	57.1	75.0	64.1	69.5	ipti
75.0	91.7	97.3	100.0	100.0	91.0	95.5	ons
50.0	41.7	84.0	42.9	75.0	54.6	64.8	for
75.0	66.7	97.3	71.4	75.0	77.6	76.3	nos
62.5	50.0	81.7	57.1	100.0	62.8	81.4	rce
25.0	33.3	59.4	28.6	50.0	36.6	43.3	s an
62.5	33.3	51.1	100.0	75.0	61.7	68.4	d a
100.0	91.7		57.1	100.0	82.9	91.5	ddit
62.5	58.3	82.2	57.1	62.5	65.0	63.8	iona
87.5	50.0	74.8	85.7	75.0	74.5	74.8	al in
75.0	66.7	68.9	42.9	75.0	63.4	69.2	lfor
0.0	0.0	39.6	0.0	0.0	9.9	4.9	mat
25.0	66.7	93.1	71.4	100.0	64.1	82.0	ion.
12.5	0.0	54.0	28.6	0.0	23.8	11.9	Nu
62.5	25.0	55.1	42.9	0.0	46.4	23.2	mb
62.5	41.7	88.6	42.9	75.0	58.9	66.9	ers
50.0	33.3	91.1	42.9	37.5	54.3	45.9	in it
37.5	16.7	79.4	71.4	75.0	51.3	63.1	alic
62.5	50.0	85.4	28.6	75.0	56.6	65.8	's ai
12.5	8.3	48.3	57.1	50.0	31.6	40.8	re e
50.0	25.0	68.0	42.9	75.0	46.5	60.7	stin.
37.5	33.3	51.9	28.6	0.0	37.8	18.9	lates
37.5	0.0	44.2	42.9	0.0	31.1	15.6	S
50.0	8.3	74.6	71.4	37.5	51.1	44.3	
50.0	16.7	52.9	42.9	50.0	40.6	45.3	

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 poorly represented them. 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 (usually official international) observers, as reported in the media and other fora. Scores are assigned by our team, as described in detail below. They are updated annually, based on all new information. Comments that we receive about scores in previous years are also researched thoroughly and scores are updated if warranted.

The first two indicators in this sub-category deal with the legitimacy of the executive in office during the majority of each year. 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 legislative elections, as those who are elected to the legislature in turn elect the head of state.)¹

The second two indicators deal with the legitimacy of the legislature in office during the majority of each year. 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 Benin, Botswana, Cape Verde, Ghana, Mauritius, Niger, 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. We do 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 is 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 that the executive or legislature 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

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.

Participation and Human Rights

not come to power through democratic constitutional means.³ 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 July 1). If the election is in the second half of the year (after July 1), 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 to determine whether we count that election 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), 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 or country: International Foundation for Electoral Systems (IFES)'s Election Guide; the African Elections Database; Economist Intelligence Unit (EIU) country reports and profiles; country reports from the "Polity IV Project: Political Regime Characteristics and Transitions, 1800–2008"; and BBC News country profiles.⁴ 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 all 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), the civil and political rights scores from Freedom House's *Freedom in the World* project, Polity IV scores on democracy and authoritarianism, and the EIU's "Index of Democracy" (published for 2006 and 2008).⁵ Our coding protocol is different from that employed in these projects, so discrepancies are inevitable. Nevertheless, we used these sources to check against our own assessments and any discrepancies noted were reviewed again.⁶

It should also be noted that there are clear discrepancies between these various sources. For instance, the most recent Polity IV scores (for 2006 and 2007) rate the Democratic Republic of the Congo (the DRC) as more democratic than Congo (Brazzaville) (the DRC receives a "democracy score" of 6 and an "autocracy score" of 1, while Congo (Brazzaville) receives a democracy score of 0 and an autocracy score of 4, in both years). The EIU's Index of Democracy, by contrast,

³ It is not uncommon in the region for former dictators to later be elected to office. We refer here only to the most recent time that the individual came to power. Thus, for instance, in Benin, the years for which Mathieu Kérékou held the presidency (1996–2006) are coded based on the March 1996 and March 2001 presidential elections in which he contested and won, even though Kérékou first came to power in Benin through a military coup in 1972.

⁴ The Polity IV Project is directed by Monty G. Marshall (Principal investigators: Monty G. Marshall and Keith Jaggers; founder: Ted Robert Gurr). For country reports, see Marshall and Keith Jaggers, "Polity IV Country Reports 2007," available at www.systemicpeace. org/polity/polity/06.htm (last accessed 21 July 2009). The African Elections Database, by Albert Nunley, is available at http://africanelec tions.tripod.com.

⁵ For the EIU's Index of Democracy, see Laza Kekic, "The Economist Intelligence Unit's Index of Democracy," *Economist's The World in* 2007, 1–11, available at www.economist.com/media/pdf/Democracy_Index_2007_v3.pdf; "The Economist Intelligence Unit's Index of Democracy 2008," *Economist's The World in* 2007, available at http://graphics.eiu.com/PDF/Democracy%20Index%202008.pdf.

⁶ 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, MA, 2007), 211–229.

rates Congo (Brazzaville) as slightly better than the DRC. (Both are labeled "authoritarian regimes," but Congo (Brazzaville) ranks more democratic than the DRC in both years–131st versus 144th in 2006, and 143rd versus 154th in 2008).

In reviewing the information from these sources, we focus as much as possible on the assessments made by the majority of international observers of each election. Not all elections are observed by international observers, so we also consult local observer assessments in some 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 sources.

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 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 are 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."

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.⁷ The Index of African Governance reviewed a number of alternative sources for its elections indicators. 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; the EIU's Index of Democracy (2008 and 2006); and the Africa Research Program at Harvard University. These existing datasets, however, are not used in the 2007 and 2008 Ibrahim Indexes, and the 2009 Index of African Governance either because they were not current enough or not updated regularly enough for our purposes or because their variables did not

⁷ For reviews of the relevant literature, see, for instance, David Beetham (ed.), Defining and Measuring Democracy (London, 1994); Gerardo L. Munck and Jay Verkuilen, "Conceptualizing and Measuring Democracy: Evaluating Alternative Indices," Comparative Political Studies, XXXV (2002), 5–34.

measure precisely what we seek to capture in the Index of African Governance.⁸

The Index also explored the possibility of including other, 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.⁹ 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.

9 See www.idea.int/vt.

⁸ For instance, they assess or classify electoral institutions, rather than whether elections were "free and fair." Polity IV ratings, in particular, could be a useful inclusion in the Index. However, Polity IV has not been updated annually, and 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. We only switch sources when we are relatively confident that the new source will provide data that are updated regularly enough to be used in all future Indexes.

FREE AND FAIR EXECUTIVE ELECTIONS

					SCAL	ED D	ATA:					
	RAW	DATA	:		Ranke	ed			Scaled	Overal	10-100	
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007
Angola	0	0	0	0	27	29	33	35	0.0	0.0	0.0	0.0
Benin	2	1	2	2	1	9	1	1	100.0	50.0	100.0	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	7	9	10	9	50.0	50.0	50.0	50.0
Burundi	0	0	1	1	27	29	10	9	0.0	0.0	50.0	50.0
Cameroon	0	1	1	1	27	9	10	9	0.0	50.0	50.0	50.0
Cape Verde	2	2	1	1	1	1	10	9	100.0	100.0	50.0	50.0
Central African Republic	1	1	1	1	7	9	10	9	50.0	50.0	50.0	50.0
Chad	0	0	0	0	27	29	33	35	0.0	0.0	0.0	0.0
Comoros	0	0	1	1	27	29	10	9	0.0	0.0	50.0	50.0
Congo (Brazzaville)	0	0	0	0	27	29	33	35	0.0	0.0	0.0	0.0
Congo, Democratic Rep.	0	0	0	1	27	29	33	9	0.0	0.0	0.0	50.0
Cote d'Ivoire	0	0	0	0	27	29	33	35	0.0	0.0	0.0	0.0
Djibouti	1	1	1	1	7	9	10	9	50.0	50.0	50.0	50.0
Equatorial Guinea	0	0	0	0	27	29	33	35	0.0	0.0	0.0	0.0
Eritrea	0	0	0	0	27	29	33	35	0.0	0.0	0.0	0.0
Ethiopia	0	0	0	0	27	29	33	35	0.0	0.0	0.0	0.0
Gabon	0	0	0	0	27	29	33	35	0.0	0.0	0.0	0.0
Gambia	0	1	1	1	27	9	10	9	0.0	50.0	50.0	50.0
Ghana	1	2	2	2	7	1	1	1	50.0	100.0	100.0	100.0
Guinea	1	0	0	0	7	29	33	35	50.0	0.0	0.0	0.0
Guinea-Bissau	1	0	1	1	7	29	10	9	50.0	0.0	50.0	50.0
Kenya	1	1	1	1	7	9	10	9	50.0	50.0	50.0	50.0
Lesotho	1	1	1	1	7	9	10	9	50.0	50.0	50.0	50.0
Liberia	1	0	2	2	7	29	1	1	50.0	0.0	100.0	100.0
Madagascar	1	1	1	1	7	9	10	9	50.0	50.0	50.0	50.0
Malawi	1	1	1	1	7	9	10	9	50.0	50.0	50.0	50.0
Mali	1	1	1	1	7	9	10	9	50.0	50.0	50.0	50.0
Mauritania	0	0	0	1	27	29	33	9	0.0	0.0	0.0	50.0
Mauritius	2	2	2	2		1	1	1	100.0	100.0	100.0	100.0
Mozambique	-	-	-	1	7	9	10	9	50.0	50.0	50.0	50.0
Namihia	1	1	1	1	7	9	10	9	50.0	50.0	50.0	50.0
Niger	1	2	2	2	7	1	1	1	50.0	100.0	100.0	100.0
Nigeria	0	0	0	0	27	20	33	35	0.0	0.0	0.0	0.0
Rwanda	0	1	1	1	27	25	10	9	0.0	50.0	50.0	50.0
Sao Tome and Principe	1	2	2	2	7	1	1	1	50.0	100.0	100.0	100.0
Senegal	2	2	2	1	1	1	1	0	100.0	100.0	100.0	50.0
Sevehelles	- 1	- 1	- 1	1	7	9	10	9	50.0	50.0	50.0	50.0
Sierra Leone	1	1	1	1	7	0	10	0	50.0	50.0	50.0	50.0
Somalia	0	0	0	0	7	9	10	9	50.0	50.0	50.0	50.0
South A frica	0	0	0	0	21	29	33	35	0.0	0.0	0.0	0.0
South Antea Suden	2	2	2	2	1	1	1	1	100.0	100.0	100.0	100.0
Suuan Silil	0	0	0	0	27	29	33	35	0.0	0.0	0.0	0.0
Swaziland	0	0	0	0	27	29	33	35	0.0	0.0	0.0	0.0
Tanzania	0	1	1	1	27	9	10	9	0.0	50.0	50.0	50.0
logo	0	0	0	0	27	29	33	35	0.0	0.0	0.0	0.0
Uganda	1	1	1	1	7	9	10	9	50.0	50.0	50.0	50.0
Zambia	1	1	1	1	7	9	10	9	50.0	50.0	50.0	50.0
Zimbabwe	0	0	0	0	27	29	33	35	0.0	0.0	0.0	0.0
Algeria	0	1	1	1	27	9	10	9	0.0	50.0	50.0	50.0
Egypt	0	0	0	0	27	29	33	35	0.0	0.0	0.0	0.0
Libya	0	0	0	0	27	29	33	35	0.0	0.0	0.0	0.0
Morocco	0	0	0	0	27	29	33	35	0.0	0.0	0.0	0.0
Tunisia	0	0	0	0	27	29	33	35	0.0	0.0	0.0	0.0

OPPOSITION PARTICIPATION IN EXECUTIVE ELECTIONS

					SCAI	ED D	ATA:					
	RAW	DATA:			Ranke	d			Scaled	Overall	0-100	
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007
Angola	0	0	0	0	27	35	38	40	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	1	1	27	35	1	1	0.0	0.0	100.0	100.0
Burundi	0	0	1	1	27	35	1	1	0.0	0.0	100.0	100.0
Cameroon	0	1	1	1	27	1	1	1	0.0	100.0	100.0	100.0
Cape Verde	0	1	1	1	27	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	0	0	1	1	38	40	100.0	100.0	0.0	0.0
Comoros	0	0	1	1	27	35	1	1	0.0	0.0	100.0	100.0
Congo (Brazzaville)	0	0	0	0	27	35	38	40	0.0	0.0	0.0	0.0
Congo, Democratic Rep.	0	0	0	1	27	35	38	1	0.0	0.0	0.0	100.0
Cote d'Ivoire	0	0	0	0	27	35	38	40	0.0	0.0	0.0	0.0
Djibouti	1	0	0	0	1	35	38	40	100.0	0.0	0.0	0.0
Equatorial Guinea	0	0	0	0	27	35	38	40	0.0	0.0	0.0	0.0
Eritrea	0	0	0	0	27	35	38	40	0.0	0.0	0.0	0.0
Ethiopia	0	1	1	1	27	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	27	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	0	0	0	1	35	38	40	100.0	0.0	0.0	0.0
Guinea-Bissau	1	0	1	1	1	35	1	1	100.0	0.0	100.0	100.0
Kenya	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Lesotho	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Liberia	1	0	1	1	1	35	1	1	100.0	0.0	100.0	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	27	1	1	1	0.0	100.0	100.0	100.0
Mauritania	0	1	0	1	27	1	38	1	0.0	100.0	0.0	100.0
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
Namihia	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	1	1	1	27	1	1	1	0.0	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	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Sevchelles	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	27	35	38	40	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	27	35	38	40	0.0	0.0	0.0	0.0
Swaziland	0	0	0	0	27	25	20	40	0.0	0.0	0.0	0.0
Tanzania	0	0	0	1	27	35	30	40	0.0	100.0	100.0	100.0
Talizalila	0	1	1	1	21	1	1	1	0.0	100.0	100.0	100.0
10g0	1	4	1	1	1	4	4	1	100.0	100.0	100.0	100.0
Uganda Zambia	0	1	1	1	21	1	1	1	0.0	100.0	100.0	100.0
Zainola 7:1	0		4	1	27	1	-	4	0.0	100.0	100.0	100.0
∠imbabwe	U	1	1	1	27	1	1	1	0.0	100.0	100.0	100.0
Ајдепа	0	1	1	1	27	1	1	1	0.0	100.0	100.0	100.0
Egypt	0	0	0	U	27	35	38	40	0.0	0.0	0.0	0.0
Libya	0	0	0	0	27	35	38	40	0.0	0.0	0.0	0.0
Miorocco	0	0	0	0	27	35	38	40	0.0	0.0	0.0	0.0
i unisia	1	1	1		1	1	1	1	100.0	100.0	100.0	100.0

FREE AND FAIR LEGISLATIVE ELECTIONS

					SCAI	ED D	ATA:					
	RAW	DATA:			Ranke	d			Scaled Overall 0-100			
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007
Angola	0	0	0	0	24	31	32	35	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	0	1	1	1	24	8	9	10	0.0	50.0	50.0	50.0
Burundi	0	0	1	1	24	31	9	10	0.0	0.0	50.0	50.0
Cameroon	0	0	0	0	24	31	32	35	0.0	0.0	0.0	0.0
Cape Verde	1	2	2	2	6	1	1	1	50.0	100.0	100.0	100.0
Central African Republic	1	1	1	1	6	8	9	10	50.0	50.0	50.0	50.0
Chad	0	0	0	0	24	31	32	35	0.0	0.0	0.0	0.0
Comoros	0	1	1	1	24	8	9	10	0.0	50.0	50.0	50.0
Congo (Brazzaville)	0	0	0	0	24	31	32	35	0.0	0.0	0.0	0.0
Congo. Democratic Rep.	0	0	0	1	24	31	32	10	0.0	0.0	0.0	50.0
Cote d'Ivoire	0	0	0	0	24	31	32	35	0.0	0.0	0.0	0.0
Diihauti	0	0	0	0	24	31	32	35	0.0	0.0	0.0	0.0
	0	0	0	0	24	21	22	35	0.0	0.0	0.0	0.0
Equatorial Guinea	0	0	0	0	24	21	32	35	0.0	0.0	0.0	0.0
Eritrea	0	0	0	0	24	31	32	35	0.0	0.0	0.0	0.0
Ethiopia	0	0	0	0	24	31	32	35	0.0	0.0	0.0	0.0
Gabon	0	0	0	0	24	31	32	35	0.0	0.0	0.0	0.0
Galiloia	0	0	0	1	24	31	32	10	0.0	0.0	0.0	50.0
Gnana	1	1	1	1	6	8	9	10	50.0	50.0	50.0	50.0
Guinea Cuinea Diaseu	1	0	0	0	6	31	32	35	50.0	0.0	0.0	0.0
Guinea-Bissau	1	1	1	1	6	8	9	10	50.0	50.0	50.0	50.0
Kenya	1	1	1	1	6	8	9	10	50.0	50.0	50.0	50.0
Lesotho	1	1	1	1	6	8	9	10	50.0	50.0	50.0	50.0
Liberia	1	0	2	2	6	31	1	1	50.0	0.0	100.0	100.0
Madagascar	1	1	1	1	6	8	9	10	50.0	50.0	50.0	50.0
Malawi	1	1	1	1	6	8	9	10	50.0	50.0	50.0	50.0
Mali	0	1	1	1	24	8	9	10	0.0	50.0	50.0	50.0
Mauritania	0	1	0	1	24	8	32	10	0.0	50.0	0.0	50.0
Mauritius	2	2	2	2	1	1	1	1	100.0	100.0	100.0	100.0
Mozambique	1	1	1	1	6	8	9	10	50.0	50.0	50.0	50.0
Namibia	1	1	1	1	6	8	9	10	50.0	50.0	50.0	50.0
Niger	1	2	2	2	6	1	1	1	50.0	100.0	100.0	100.0
Nigeria	0	0	0	0	24	31	32	35	0.0	0.0	0.0	0.0
Rwanda	0	1	1	1	24	8	9	10	0.0	50.0	50.0	50.0
Sao Tome and Principe	2	2	2	2	1	1	1	1	100.0	100.0	100.0	100.0
Senegal	1	2	2	2	6	1	1	1	50.0	100.0	100.0	100.0
Seychelles	1	1	1	1	6	8	9	10	50.0	50.0	50.0	50.0
Sierra Leone	1	1	1	1	6	8	9	10	50.0	50.0	50.0	50.0
Somalia	0	0	0	0	24	31	32	35	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	24	31	32	35	0.0	0.0	0.0	0.0
Swaziland	0	0	0	0	24	31	32	35	0.0	0.0	0.0	0.0
Tanzania	0	1	1	1	24	8	0	10	0.0	50.0	50.0	50.0
Tanzania	0	1	1	1	24	0	9	10	0.0	50.0	50.0	50.0
10g0	0	4	1	1	24	0	9	10	0.0	50.0	50.0	50.0
	J	1	1	1	24	ð	а	10	0.0	50.0	50.0	50.0
	1	1	1	1	6	8	9	10	50.0	50.0	50.0	50.0
Limbabwe	U	U	U	U	24	31	32	35	0.0	0.0	0.0	0.0
Aigena	1	1	1	1	6	8	9	10	50.0	50.0	50.0	50.0
Egypt	0	0	0	0	24	31	32	35	0.0	0.0	0.0	0.0
Libya	0	0	0	0	24	31	32	35	0.0	0.0	0.0	0.0
Morocco	0	1	1	1	24	8	9	10	0.0	50.0	50.0	50.0
Tunisia	0	0	0	0	24	31	32	35	0.0	0.0	0.0	0.0

OPPOSITION PARTICIPATION IN LEGISLATIVE ELECTIONS

					SCAI	LED D	ATA:					
	RAW DATA:					ed			Scaled Overall 0-100			
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007
Angola	0	0	0	0	34	37	39	42	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	1	1	34	37	1	1	0.0	0.0	100.0	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	1	1	1	34	1	1	1	0.0	100.0	100.0	100.0
Congo (Brazzaville)	0	1	1	1	34	1	1	1	0.0	100.0	100.0	100.0
Congo, Democratic Rep.	0	0	0	1	34	37	39	1	0.0	0.0	0.0	100.0
Cote d'Ivoire	0	0	0	0	34	37	39	42	0.0	0.0	0.0	0.0
Diibouti	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Equatorial Guinea	1	0	0	0	1	37	39	42	100.0	0.0	0.0	0.0
Equatorial Ouriea	0	0	0	0	34	37	39	42	0.0	0.0	0.0	0.0
Efficie	0	1	1	1	34	1	1	1	0.0	100.0	100.0	100.0
Gabon	1	0	0	1	1	37	30	1	100.0	0.0	0.0	100.0
Gambia	0	0	0	1	3/	37	30	1	0.0	0.0	0.0	100.0
Ghana	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Guinea	1	0	0	0	1	27	20	42	100.0	0.0	0.0	0.0
Guinea-Bissau	1	1	1	1	1	37	39	42	100.0	100.0	100.0	100.0
Kenva	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Lesotho	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Liberia	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Madagascar	1	0	1	1	1	37	1	1	100.0	0.0	100.0	100.0
Malayvi	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	34	1	1	1	0.0	100.0	100.0	100.0
Mauritania	0	1	0	1	34	1	39	1	0.0	100.0	0.0	100.0
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	1	1	1	34	1	1	1	0.0	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	1	1	1	0	1	1	1	42	100.0	100.0	100.0	0.0
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	34	37	39	42	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	34	37	39	42	0.0	0.0	0.0	0.0
Swaziland	0	0	0	0	34	37	39	42	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	34	37	39	42	0.0	0.0	0.0	0.0
Uganda	0	0	1	1	34	37	1	1	0.0	0.0	100.0	100.0
Zambia	0	1	1	1	34	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
Algeria	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Egypt	0	0	0	0	34	37	39	42	0.0	0.0	0.0	0.0
Libva	0	0	0	0	34	37	39	42	0.0	0.0	0.0	0.0
Morocco	1	1	1	1	1	1	1	1	100.0	100.0	100.0	100.0
Tunisia	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 (Version 2009.03.27).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."

In 2007, São Tomé and Príncipe received the best scores for this indicator (8 of a possible 8). A handful of countries received scores of 7: Botswana, Cape Verde, Gabon, Guinea-Bissau, and the Seychelles. At the other end of the spectrum, four countries received scores of 1: the Democratic Republic of the Congo, Ethiopia, the Sudan, and Zimbabwe; we estimated Somalia's score at 0.

Technical Notes

CIRI provides the following summaries of each of the variables used to construct the Physical Integrity Rights Index:²

[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.

[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.

¹ David L. Cingranelli and David L. Richards, "The Cingranelli-Richards (CIRI) Human Rights Dataset" (Dataset Version 2009.03.27), available at www.humanrightsdata.org (last accessed 27 April 2009). 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 David L. Cingranelli and David L. Richards, "Short Variable Descriptions for the Indicators in the Cingranelli-Richards (CIRI) Human Rights Dataset" (Document version 12.07.08), 3–4, available at http://ciri.binghamton.edu/ documentation/ciri_variables_shortdescriptions.pdf (last accessed 19 May 2009).

[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.

[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.

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" (Version 7.30.08), available at http://ciri.binghamton.edu/documentation/ciri_coding_guide.pdf.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 from 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 Rights 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 the 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 our 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 Cingranelli and Richards, "Measuring the Level, Pattern, and Sequence of Government Respect for Physical Integrity Rights."

RESPECT FOR PHYSICAL INTEGRITY RIGHTS

Physical Rights Index of The Cingranelli-Richards (CIRI) Human Rights Dataset (V2009.03.27)

		SCALED DATA:											
R	AW	DATA:			Ranke	d			Scaled Overall 0-100				
2	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007	
Angola	1	3	4	2	44	32	25	44	12.5	37.5	50.0	25.0	
Benin	7	7	6	5	5	4	5	15	87.5	87.5	75.0	62.5	
Botswana	7	7	6	7	5	4	5	2	87.5	87.5	75.0	87.5	
Burkina Faso	4	5	5	6	24	16	13	7	50.0	62.5	62.5	75.0	
Burundi	1	3	1	3	44	32	47	35	12.5	37.5	12.5	37.5	
Cameroon	1	4	4	3	44	26	25	35	12.5	50.0	50.0	37.5	
Cape Verde	7	7	7	7	5	4	2	2	87.5	87.5	87.5	87.5	
Central African Republic	3	3	3	3	32	32	34	35	37.5	37.5	37.5	37.5	
Chad	3	2	2	4	32	42	42	27	37.5	25.0	25.0	50.0	
Comoros	8	8	7	5	1	1	2	15	100.0	100.0	87.5	62.5	
Congo (Brazzaville)	3	4	4	4	32	26	25	27	37.5	50.0	50.0	50.0	
Congo, Democratic Rep.	0	2	1	1	49	42	47	49	0.0	25.0	12.5	12.5	
Cote d'Ivoire	1	2	2	3	44	42	42	35	12.5	25.0	25.0	37.5	
Djibouti	6	5	6	6	11	16	5	7	75.0	62.5	75.0	75.0	
Equatorial Guinea	3	2	3	3	32	42	34	35	37.5	25.0	37.5	37.5	
Eritrea	6	2	2	2	11	42	42	44	75.0	25.0	25.0	25.0	
Ethiopia	2	0	1	1	38	52	47	49	25.0	0.0	12.5	12.5	
Gabon	8	5	5	7	1	16	13	2	100.0	62.5	62.5	87.5	
Gambia	6	6	3	5	11	10	34	15	75.0	75.0	37.5	62.5	
Ghana	5	6	5	5	19	10	13	15	62.5	75.0	62.5	62.5	
Guinea	2	5	4	2	38	16	25	44	25.0	62.5	50.0	25.0	
Guinea-Bissau	7	6	7	7	5	10	2	2	87.5	75.0	87.5	87.5	
Kenya	2	3	3	3	38	32	34	35	25.0	37.5	37.5	37.5	
Lesotho	6	6	6	6	11	10	5	7	75.0	75.0	75.0	75.0	
Liberia	0	7	5	6	49	4	13	7	0.0	87.5	62.5	75.0	
Madagascar	7	4	5	6	5	26	13	7	87.5	50.0	62.5	75.0	
Malawi	7	5	4	5	5	16	25	15	87.5	62.5	50.0	62.5	
Mali	6	7	6	5	11	4	5	15	75.0	87.5	75.0	62.5	
Mauritania	6	3	6	4	11	32	5	27	75.0	37.5	75.0	50.0	
Mauritius	6	7	5	6	11	4	13	7	75.0	87.5	62.5	75.0	
Mozambique	2	5	5	4	38	16	13	27	25.0	62.5	62.5	50.0	
Namibia	5	6	5	6	19	10	13	7	62.5	75.0	62.5	75.0	
Niger	6	6	5	5	11	10	13	15	75.0	75.0	62.5	62.5	
Nigeria	1	2	2	2	44	42	42	44	12.5	25.0	25.0	25.0	
Rwanda	2	4	4	5	38	26	25	15	25.0	50.0	50.0	62.5	
Sao Tome and Principe	8	8	6	8	1	1	5	1	100.0	100.0	75.0	100.0	
Senegal	4	5	5	5	24	16	13	15	50.0	62.5	62.5	62.5	
Seychelles	8	8	8	7	1	1	1	2	100.0	100.0	100.0	87.5	
Sierra Leone	0	5	5	6	49	16	13	7	0.0	62.5	62.5	75.0	
Somalia	0	0	0	0	49	52	53	53	0.0	0.0	0.0	0.0	
South Africa	4	4	4	2	24	26	25	44	50.0	50.0	50.0	25.0	
Sudan	0	1	1	1	49	51	47	49	0.0	12.5	12.5	12.5	
Swaziland	5	5	6	5	19	16	5	15	62.5	62.5	75.0	62.5	
Tanzania	3	3	5	5	32	32	13	15	37.5	37.5	62.5	62.5	
Тодо	5	2	3	4	19	42	34	27	62.5	25.0	37.5	50.0	
Uganda	2	2	1	3	38	42	47	35	25.0	25.0	12.5	37.5	
Zambia	5	4	4	5	19	26	25	15	62.5	50.0	50.0	62.5	
Zimbabwe	4	2	2	1	24	42	42	49	50.0	25.0	25.0	12.5	
Algeria	4	5	1	4	24	16	47	27	50.0	62.5	12.5	50.0	
Egypt	4	3	3	3	24	32	34	35	50.0	37.5	37.5	37.5	
Libva	4	3	3	3	24	32	34	35	50.0	37.5	37.5	37.5	
Morocco	4	3	4	4	24	32	25	27	50.0	37.5	50.0	50.0	
Tunisia	3	3	3	4	32	32	34	27	37.5	37.5	37.5	50.0	

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, electoral participation (known as "political participation" in the previous edition), and freedom of religion. The latest version of the CIRI Dataset includes new variables for freedom of movement and freedom of religion for 2007, which differ slightly from those available for previous years. The CIRI team has provided us with coding using the "old" method for these two variables for 2007.

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).

In 2007, Cape Verde, Ghana, Mauritius, and São Tomé and Príncipe received the best scores for this indicator (11 of a possible 12), suggesting almost full government respect for Empowerment Rights and Freedom of Assembly and Association. Three countries received scores of 10: Lesotho, Liberia, and Mali. At the other end of the spectrum, Eritrea, Libya, Somalia, and the Sudan received scores of 0, while Morocco and Zimbabwe received scores of 1.² Just above that were several countries with scores of 2: Chad, Ethiopia, Tunisia, and Uganda.

Technical Notes

The "CIRI Variables List & Short Descriptions" document provides the following information about each of the relevant sub-variables used to construct its Empowerment Rights Index and for Freedom of Assembly and Association:³

[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.

¹ David L. Cingranelli and David L. Richards, "The Cingranelli-Richards (CIRI) Human Rights Dataset" (Dataset Version 2009.03.27), available at www.humanrightsdata.org (last accessed 27 April 2009), plus additional coding done by the CIRI team for our project as noted. For further information on the variables used to construct this indicator in particular, see 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.

² Somalia's score is our Index estimate (see the technical notes for details).

³ Information is taken directly from David L. Cingranelli and David L. Richards, "Short Variable Descriptions for the Indicators in the Cingranelli-Richards (CIRI) Human Rights Dataset" (Document version 12.07.08), 4–6, available at http://ciri.binghamton.edu/documentation/ciri_variables_short_descriptions.pdf (last accessed 3 June 2009). For the two variables that have been phased out in the latest edition of the CIRI Dataset (Freedom of Movement and Freedom of Religion), we give the old definition here because that is the one currently employed in our project. Note that the two dichotomous variables (Freedom of Religion and Freedom of Movement) were rescaled 0–2 by the CIRI project in calculating the Empowerment Rights Index. They note that this was "for purposes of Mokken Scaling Analysis, which required an identical range for all variables" (p. 3).

[OLD_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.

[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.

[ELECSD] Electoral Self-Determination

(Formerly Known as POLPAR or Political Participation)

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 open during the year in question and citizens had the right to self-determination was very free and open during the year in question and citizens had the right to self-determination through free and open during the year in question and citizens had the right to self-determination through 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.

[OLD_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.

[WORKER] Worker's 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.

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.⁴ We also include them because CIRI's measures encompass slightly different criteria than do the others and are derived from different sources of information.

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 Version 7.30.08), available at http://

⁴ Effectively, this means that we place additional weight on electoral participation and on freedom of speech as components of Participation and Human Rights.

Participation and Human Rights

ciri.binghamton.edu/documentation/ciri_coding_guide.pdf.5

The latest edition of the CIRI Dataset does not include scores for the "old" Freedom of Speech and Freedom of Movement variables for 2007. These scores have been provided to us directly by the CIRI project.⁶

Scores on Empowerment Rights and Freedom of Assembly and Association for 2000 and 2002 are unavailable 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 from 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).

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. It also assigns a value of "-77" for Freedom of Assembly in Somalia for all Index years, except 2007. For the Index of African Governance, we thus assign a value of "0" on Empowerment Rights for Somalia for each year, for the DRC in 2000, and for Sierra Leone in 2000.⁷ We make this substitution because the Index of African Governance's approach attempts to focus on governance performance as experienced by citizens; thus, the absence of a 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 the 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 for Civil Rights as follows: DRC = 0 + 0 = 0, Sierra Leone = 0 + 2 = 2, and Somalia = 0 + 0 = 0.

⁵ 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*, XLII (2001), 219–239.

⁶ CIRI has replaced the "old" freedom of movement and freedom of religion variables with "new" variables, which we intend to

incorporate in future years of the Index of African Governance once CIRI completes its coding for the earlier years.

⁷ CIRI's Empowerment Rights scores for the DRC and Sierra Leone in 2001 are 0 and 9, respectively.

RESPECT FOR CIVIL RIGHTS

Empowerment Rights Index and Freedom of Assembly and Association Indicator of The Cingranelli-Richards (CIRI) Human Rights Dataset (V2009.03.27), and Additional Coding

		SCALED DATA:										
	RAW	DATA:			Ranke	d						
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007
Angola	4	5	5	4	33	28	31	31	33.3	41.7	41.7	33.3
Benin	12	8	8	9	1	11	15	8	100.0	66.7	66.7	75.0
Botswana	10	7	9	9	7	18	8	8	83.3	58.3	75.0	75.0
Burkina Faso	8	8	8	9	15	11	15	8	66.7	66.7	66.7	75.0
Burundi	3	6	6	5	42	23	26	25	25.0	50.0	50.0	41.7
Cameroon	6	2	3	5	23	41	42	25	50.0	16.7	25.0	41.7
Cape Verde	10	10	10	11	7	4	3	1	83.3	83.3	83.3	91.7
Central African Republic	6	3	3	3	23	33	42	39	50.0	25.0	25.0	25.0
Chad	6	2	2	2	23	41	46	44	50.0	16.7	16.7	16.7
Comoros	8	8	7	4	15	11	20	31	66.7	66.7	58.3	33.3
Congo (Brazzaville)	7	7	7	6	19	18	20	20	58.3	58.3	58.3	50.0
Congo, Democratic Rep.	0	1	3	4	49	47	42	31	0.0	8.3	25.0	33.3
Cote d'Ivoire	4	5	4	5	33	28	38	25	33.3	41.7	33.3	41.7
Diibouti	4	3	5	6	33	33	31	20	33.3	25.0	41.7	50.0
Equatorial Guinea	0	1	1	3	49	47	48	39	0.0	8.3	8.3	25.0
Equatorial Ouriea	4	0	0	0	33	51	50	50	33.3	0.0	0.0	0.0
Effica	5	6	5	2	29	23	31	44	41 7	50.0	41.7	16.7
Gabon	0	6	7	5	12	23	20	25	75.0	50.0	58.3	41.7
Gambia	6	7	0	8	23	18	20	11	50.0	58.3	75.0	66.7
Ghana	7	0	0	11	10	11	0	1	50.0	66.7	75.0	01.7
Guinea	1	7	3	4	22	10	20	21	22.2	59.2	22.2	22.2
Guinea-Bissau	4	1	4	4	33	10	30	31	33.3	56.5	33.3	33.3
Kenva	8	10	9	8	15	4	8	11	00.7	83.3	75.0	05.0
Lesotho	5	9	8	3	29	9	15	39	41.7	75.0	00.7	25.0
Liborio	9	11	10	10	12	1	3	5	75.0	91.7	83.3	83.3
Madagasaar	6	10	10	10	23	4	3	5	50.0	83.3	83.3	83.3
Madagascar	10	5	9	8	7	28	8	11	83.3	41.7	75.0	66.7
Malawi	8	8	8	8	15	11	15	11	66.7	66.7	66.7	66.7
Mali	12	10	10	10	1	4	3	5	100.0	83.3	83.3	83.3
Mauritania	4	3	5	7	33	33	31	18	33.3	25.0	41.7	58.3
Mauritius	12	11	11	11	1	1	1	1	100.0	91.7	91.7	91.7
Mozambique	9	6	6	5	12	23	26	25	75.0	50.0	50.0	41.7
Namibia	11	10	10	8	4	4	3	11	91.7	83.3	83.3	66.7
Niger	10	8	6	6	7	11	26	20	83.3	66.7	50.0	50.0
Nigeria	4	3	5	4	33	33	31	31	33.3	25.0	41.7	33.3
Rwanda	6	2	7	4	23	41	20	31	50.0	16.7	58.3	33.3
Sao Tome and Principe	11	11	11	11	4	1	1	1	91.7	91.7	91.7	91.7
Senegal	10	8	9	7	7	11	8	18	83.3	66.7	75.0	58.3
Seychelles	5	5	5	6	29	28	31	20	41.7	41.7	41.7	50.0
Sierra Leone	2	7	8	8	44	18	15	11	16.7	58.3	66.7	66.7
Somalia	0	0	0	0	49	51	50	50	0.0	0.0	0.0	0.0
South Africa	11	9	9	8	4	9	8	11	91.7	75.0	75.0	66.7
Sudan	0	1	0	0	49	47	50	50	0.0	8.3	0.0	0.0
Swaziland	2	1	6	3	44	47	26	39	16.7	8.3	50.0	25.0
Tanzania	7	4	4	5	19	32	38	25	58.3	33.3	33.3	41.7
Togo	4	3	4	4	33	33	38	31	33.3	25.0	33.3	33.3
Uganda	3	2	7	2	42	41	20	44	25.0	16.7	58.3	16.7
Zambia	7	6	7	6	19	23	20	20	58.3	50.0	58.3	50.0
Zimbabwe	4	0	0	1	33	51	50	48	33.3	0.0	0.0	8.3
Algeria	5	3	1	3	29	33	48	39	41.7	25.0	8.3	25.0
Egypt	2	3	3	4	44	33	42	31	16.7	25.0	25.0	33.3
Libva	0	2	2	0	49	41	46	50	0.0	16.7	16.7	0.0
Morocco	1	2	6	1	48	41	26	48	8.3	16.7	50.0	8.3
Tunisia	2	3	5	2	44	33	31	44	16.7	25.0	41.7	16.7

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" (RSF Index) developed by Reporters without Borders (*Reporters sans frontieres*—RSF). The RSF Index is based on a survey of partner organizations, journalists, and others. RSF's questionnaire includes fifty questions, focused on that year; the 2007 RSF Index focuses on 1 September 2006 to 1 September 2007. 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, Africa's stand-out performer until 2007 was Benin, which ranked first in the region in all years of the Index of African Governance, except in 2007. In 2007, Benin fell to 9th place. Top performers in 2007 include Namibia and Mauritius (tied for 1st), Ghana (3rd), and South Africa (4th). At the other end of the spectrum, Africa's worst performer in all years was Eritrea. In addition to Eritrea, other countries with extremely low press freedom ratings include Equatorial Guinea, Ethiopia, Libya, Somalia, Tunisia, 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 Useful sources, on Africa specifically, include:

- African Commission on Human and Peoples' Rights, Special Rapporteur on Freedom of Expression in Africa (www.achpr.org/english/_info/index_free_exp_en.html).
- The Media Institute of Southern Africa (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 www.bbc.co.uk/worldservice/trust/specials/1552_trust_amdi/index.shtml).

¹ A complete list of questions for 2007 can be found at www.rsf.org/Questionnaire-for-compiling-a-2007.html (last accessed 21 July 2009).

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 questions. Objections were also raised to us about bias in the RSF Index by Rwandan participants at a meeting in Kigali on the 2008 Ibrahim Index of African Governance, particularly with regard to Rwanda's ratings ("Seminar on Ibrahim Index of African Governance," 14 January 2009, hosted by the Rwandan Ministry of Local Government, Ministry of Finance and Economic Planning, and Governance Advisory Council). After additional research into the RSF Index, we have decided to continue its use. However, we remain aware of such concerns.

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," Cambridge, Massachusetts, 29–31 May 2008.

Technical Notes

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

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 well correlated with the "real" figures: the year-to-year correlation between the data that we do have for the African continent is 0.86 for 2002 and 2005, 0.87 for 2005 and 2006, and 0.94 for 2006 and 2007.

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

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

PRESS FREEDOM

Reporters without Borders (Worldwide Press Freedom Index)

	SCAL	ED D	ATA:									
ł	RAW	DATA:			Ranke	d		Scaled Overall 0-10			0-100	
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007
Angola	30.2	18.0	21.5	26.5	35	15	21	22	77.4	88.6	85.4	80.8
Benin	6.0	5.5	5.5	17.0	1	1	1	9	99.5	100.0	100.0	89.5
Botswana	13.0	14.0	13.0	23.5	6	9	9	16	93.1	92.2	93.1	83.5
Burkina Faso	27.8	19.0	16.0	21.5	30	16	14	12	79.6	87.6	90.4	85.4
Burundi	24.5	23.0	39.8	43.4	24	25	38	37	82.6	84.0	68.6	65.3
Cameroon	28.8	20.5	28.3	36.0	32	21	31	33	78.6	86.3	79.2	72.1
Cape Verde	13.8	6.0	11.5	14.0	7	3	7	5	92.4	99.5	94.5	92.2
Central African Republic	21.5	19.8	14.5	22.5	18	20	10	14	85.4	87.0	91.8	84.4
Chad	28.8	30.0	35.5	36.5	31	31	37	34	78.7	77.6	72.5	71.6
Comoros	20.5	22.0	22.5	28.0	14	23	22	25	86.3	84.9	84.4	79.4
Congo (Brazzaville)	23.2	17.0	17.0	24.5	22	11	16	18	83.8	89.5	89.5	82.6
Congo, Democratic Rep.	40.8	57.3	51.0	50.5	45	47	46	41	67.7	52.6	58.4	58.8
Cote d'Ivoire	19.0	52.3	25.0	27.0	13	46	27	24	87.6	57.2	82.2	80.3
Diibouti	31.3	37.0	33.0	50.3	38	35	36	40	76.4	71.2	74.8	59.0
Equatorial Guinea	42.8	44.0	48.0	65.3	47	43	43	49	65.9	64.8	61.1	45.3
Eritrea	83.7	99.8	97.5	114.8	52	52	52	52	28.4	13.7	15.8	0.0
Ethiopia	37.5	42.0	75.0	63.0	42	42	51	48	70.7	66.6	36.4	47.4
Gabon	20.5	26.0	28.5	31.5	14	29	32	28	86.3	81.2	78.9	76.2
Gambia	22.5	41.0	54.0	48.3	19	41	49	38	84.4	67.5	55.6	60.9
Ghana	23.0	15.0	8.5	9.0	21	10	4	3	84.0	91.3	97.3	96.8
Guinea	26.0	26.0	27.5	33.5	27	29	30	31	81.2	81.2	79.9	74.4
Guinea-Bissau	30.3	17.0	14.5	33.5			10	31	77.3	89.5	91.8	74.4
Kenya	24.8	30.0	30.3	23.8	26	31	34	17	82.4	77.6	77.3	83.3
Lesotho	17.8	19.5	16.0	29.5	11	19	14	27	88.8	87.2	90.4	78.0
Liberia	37.8	20.5	19.0	25.3	44	21	19	20	70.5	86.3	87.6	81.8
Madagascar	22.8	24.5	15.0	20.0	20	28	12	11	84.2	82.6	01.0	86.7
Malawi	22.0	24.0	15.0	20.0	20	20	12	22	70.7	02.0	91.3	00.7
Mali	12.5	22.0	20.0	16.5	29	24	20	23	02.6	04.2	06.9	80.0
Mauritania	12.5	0.0	3.0	10.5	5	0	5	-	95.0	97.7	90.0	09.9
Mauritina	41.3	40.0	17.5	15.5	40	39	17	1	07.2	68.4	89.0	90.8
Mauritius	9.5	7.5	8.0	8.5	4	5	3	1	96.3	98.2	97.7	97.3
Mozambique	23.5	10.5	11.5	23.0	23	1	/	15	83.5	95.4	94.5	84.0
Namibia	8.0	5.5	6.0	8.5	3	1	2	1	97.7	100.0	99.5	97.3
Niger	18.5	13.0	24.5	25.5	12	8	24	21	88.1	93.1	82.6	81.7
Nigeria	15.5	38.8	32.2	49.8	9	37	35	39	90.8	69.6	75.5	59.4
Kwanda	37.5	38.0	41.0	58.9	42	36	41	46	70.7	70.3	67.5	51.1
Sao Tome and Principe												
Senegal	14.0	19.0	17.5	25.0	8	16	17	19	92.2	87.6	89.0	82.2
Seychelles	20.8	17.0	24.5	33.0	16	11	24	29	86.0	89.5	82.6	74.8
Sierra Leone	24.5	39.5	26.0	39.5	24	38	29	35	82.6	68.9	81.2	68.9
Somalia	45.0	59.0	51.3	71.5	48	49	47	51	63.8	51.0	58.1	39.6
South Africa	7.5	6.5	11.3	13.0	2	4	6	4	98.2	99.1	94.7	93.1
Sudan	36.0	44.0	48.1	55.8	41	43	44	43	72.1	64.8	61.0	54.0
Swaziland	29.0	35.0	40.5	54.5	33	33	40	42	78.5	73.0	68.0	55.1
Tanzania	21.3	17.5	19.8	18.0	17	14	20	10	85.6	89.0	86.9	88.6
Togo	31.5	23.8	15.0	15.2	39	27	12	6	76.2	83.3	91.3	91.1
Uganda_	17.0	19.3	29.8	28.0	10	18	33	25	89.5	87.4	77.7	79.4
Zambia	26.8	23.0	22.5	21.5	28	25	22	12	80.5	84.0	84.4	85.4
Zimbabwe	48.3	64.3	50.0	62.0	49	50	45	47	60.9	46.2	59.3	48.3
Algeria	31.0	40.3	40.0	40.5	37	40	39	36	76.7	68.1	68.4	68.0
Egypt	34.5	52.0	46.3	58.0	40	45	42	45	73.5	57.4	62.7	51.9
Libya	72.5	88.8	62.5	66.5	51	51	50	50	38.7	23.8	47.8	44.2
Morocco	29.0	36.2	24.8	33.3	33	34	26	30	78.5	71.9	82.3	74.6
Tunisia	67.8	57.5	53.8	57.0	50	48	48	44	43.0	52.4	55.8	52.9

Category:Participation and Human RightsSub-Category:Civil and Political Rights

INDICTOR: WOMEN'S RIGHTS

This indicator measures respect for women's political, social, and economic rights. It is an additive indicator drawn from three variables from the Cingranelli-Richards (CIRI) Human Rights Dataset: Women's Economic Rights, Women's Political 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).

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

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

¹ David L. Cingranelli and David L. Richards, "The Cingranelli-Richards (CIRI) Human Rights Dataset" (Dataset Version 2009.03.27), available at www.humanrightsdata.org (last accessed 27 April 2009).

² Indented lists are taken directly from Cingranelli and Richards, "Short Variable Descriptions for the Indicators in the Cingranelli-Richards (CIRI) Human Rights Dataset" (Document version 12.07.08), 7–9, available at http://ciri.binghamton.edu/documentation/ ciri_variables_short_descriptions.pdf (last accessed 19 May 2009).

- 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. Systematic discrimination may be entrenched in the law. A score of "1" for each indicates that the law guarantees equality, but there may be limitations in practice. A score of "3" indicates legal guarantees as well as respect in practice.

In 2007, the countries with the best performance record overall included Mauritius and Rwanda (each with scores of 7 of a possible 9), followed by the Seychelles with a score of 6, and Madagascar, Morocco, Namibia, South Africa, and Uganda (each with scores of 5). The worst performers in 2007 included Somalia (with an estimated score of 0), followed by Botswana, Cameroon, Chad, the Democratic Republic of the Congo, Egypt, Ethiopia, Kenya, Nigeria, the Sudan, and Zambia (each with scores of 2).

Looking at performance in the sub-indicators that make up the Women's Rights indicator, scores for Women's Social Rights in particular highlighted continuing challenges for the region. In 2007, African countries received an average score of 0.6 (out of a possible 3). No country in the region received a score of 3 for 2007, and only four countries received scores of 2: the Comoros, Mauritius, Rwanda, and the Seychelles.

In terms of Women's Economic Rights, the average country score in 2007 was also less than 1 (0.9). The country in the region with the highest score was Mauritius, which was the only African country to receive the highest possible score of 3 in this area. In Mauritius, the 2002 Sex Discrimination Act provides for the elimination of gender discrimination along the lines of the Convention on the Elimination of All Forms of Discrimination against Women, and provisions are reportedly generally respected in practice.

In terms of the Women's Rights indicators, the best performance in the region was in the area of Women's Political Rights. Across countries in 2007, the average score was 2. For this sub-indicator, five countries received the highest possible score of 3 in 2007: Burundi, Mozambique, Rwanda, South Africa, and Uganda. Despite continuing challenges for women in each of these countries, reports on all five suggested relatively high political representation by women and respect for political rights in law and practice. The Burundian Constitution, for instance, reserves 30 percent of seats in the National Assembly, Senate, and Cabinet for women, as well as 30 percent of positions in other governmental bodies. In practice, more than 30 percent of the seats in the National Assembly and Senate were occupied by women, while slightly under 30 percent (6 of 24) of the ministerial seats were occupied by women. Similarly, the Rwandan Constitution reserves 30 percent of the parliamentary seats for women. In practice in 2007, almost half of the seats in the Chamber of Deputies (38 of 80) were occupied by women, as were 9 of 26 seats in the Senate and 32 percent of Cabinet positions.³

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" (Version 7.30.08), available at http://ciri.binghamton.edu/documentation/ciri_coding_guide.pdf.⁴

³ Figures are from the U.S. Department of State's 2007 Country Reports on Human Rights Practices.

⁴ 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.

The Women's Rights indicator used in the Index of African Governance is a simple additive index of all three Women's Rights indicators from the CIRI Human Rights Data Project.

For each of its women's right 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 from 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 a 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 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 RIGHT'S

The Cingranelli-Richards (CIRI) Human Rights Dataset (V2009. 03.27)

					SCAL	ED D	ATA:						
	RAW	DATA:			Ranke	d			Scaled Overall 0-100				
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007	
Angola	1	1	1	1	10	6	3	10	33.3	33.3	33.3	33.3	
Benin	1	1	1	1	10	6	3	10	33.3	33.3	33.3	33.3	
Botswana	1	1	1	0	10	6	3	40	33.3	33.3	33.3	0.0	
Burkina Faso	0	1	1	1	48	6	3	10	0.0	33.3	33.3	33.3	
Burundi	1	1	1	0	10	6	3	40	33.3	33.3	33.3	0.0	
Cameroon	1	0	0	0	10	45	44	40	33.3	0.0	0.0	0.0	
Cape Verde	1	1	1	1	10	6	3	10	33.3	33.3	33.3	33.3	
Central African Republic	1	0	0	0	10	45	44	40	33.3	0.0	0.0	0.0	
Chad	1	0	0	0	10	45	44	40	33.3	0.0	0.0	0.0	
Comoros	1	1	1	1	10	6	3	10	33.3	33.3	33.3	33.3	
Congo (Brazzaville)	1	1	1	1	10	6	3	10	33.3	33.3	33.3	33.3	
Congo, Democratic Rep.	0	0	0	0	48	45	44	40	0.0	0.0	0.0	0.0	
Cote d'Ivoire	2	1	1	1	1	6	3	10	66.7	33.3	33.3	33.3	
Diibouti	1	1	2	1	10	6	1	10	33.3	33.3	66.7	33.3	
Equatorial Guinea	1	1	1	1	10	6	3	10	33.3	33.3	33.3	33.3	
Eritrea	1	1	1	1	10	6	3	10	33.3	33.3	33.3	33.3	
Ethiopia	1	1	1	0	10	6	3	40	33.3	33.3	33.3	0.0	
Gabon	1	1	1	1	10	6	3	10	33.3	33.3	33.3	33.3	
Gambia	1	1	0	1	10	6	44	10	33.3	33.3	0.0	33.3	
Ghana	1	1	1	0	10	6	3	40	33.3	33.3	33.3	0.0	
Guinea	1	1	1	1	10	6	3	10	33.3	33.3	33.3	33.3	
Guinea-Bissau	1	0	1	1	10	45	3	10	33.3	0.0	33.3	33.3	
Kenya	1	1	0	0	10	6	44	40	33.3	33.3	0.0	0.0	
Lesotho	0	0	1	1	48	45	3	10	0.0	0.0	33.3	33.3	
Liberia	1	1	1	1	10	6	3	10	33.3	33.3	33.3	33.3	
Madagascar	2	1	1	2	1	6	3	2	66.7	33.3	33.3	66.7	
Malawi	1	1	1	1	10	6	3	10	33.3	33.3	33.3	33.3	
Mali	1	. 1	1	1	10	6	3	10	33.3	33.3	33.3	33.3	
Mauritania	2	2	1	2	1	1	3	2	66.7	66.7	33.3	66.7	
Mauritius	1	2	2	3	10	1	1	1	33.3	66.7	66.7	100.0	
Mozambique	2	1	1	0	1	6	3	40	66.7	33.3	33.3	0.0	
Namibia	2	1	1	2	1	6	3	2	66.7	33.3	33.3	66.7	
Niger	1	0	1	1	10	45	3	10	33.3	0.0	33.3	33.3	
Nigeria	1	1	0	1	10		44	10	33.3	33.3	0.0	33.3	
Rwanda	1	2	1	2	10	1	3	2	33.3	66.7	33.3	66.7	
Sao Tome and Principe	1	1	1	1	10	6	2	10	22.2	22.2	22.2	22.2	
Senegal	1	1	0	2	10	6	14	2	33.3	33.3	0.0	66.7	
Sevehelles	2	2	1	2	1	1	3	2	66.7	66.7	33.3	66.7	
Sierra Leone	0	1	1	1	18	6	3	10	0.0	33.3	33.3	33.3	
Somalia	0	0	0	0	40	45	11	10	0.0	0.0	0.0	0.0	
South Africa	2	1	1	1		45	2	10	66.7	22.2	22.2	22.2	
South Athlea	2	1	0	0	10	0	3	10	00.7	33.3	33.3	33.3	
Swaziland	1	1	1	1	40	0		40	0.0	22.3	0.0	0.0	
Tonzonio	1	1	1	0	10	0	3	10	33.3	33.3	33.3	33.3	
Tanzania	2	1	1	1	10	0	3	40	33.3	33.3	33.3	0.0	
10g0	2	1	1	1	10	45	3	10		0.0	33.3	33.3	
\cup ganda Zam ¹	1	1	1	1	10	6	3	10	33.3	33.3	33.3	33.3	
	1	1	1	1	10	0	3	40	33.3	33.3	33.3	0.0	
Limbabwe	1	1	1	1	10	6	3	10	33.3	33.3	33.3	33.3	
Ајдепа	1	1	1	1	10	6	3	10	33.3	33.3	33.3	33.3	
Egypt	1	1	1	1	10	6	3	10	33.3	33.3	33.3	33.3	
Libya	1	1	1	2	10	6	3	2	33.3	33.3	33.3	66.7	
Morocco	1	1	1	2	10	6	3	2	33.3	33.3	33.3	66.7	
Tunisia	2	2	1	1	1	1	3	10	66.7	66.7	33.3	33.3	

WOMEN'S POLITICAL RIGHTS

The Cingranelli-Richards (CIRI) Human Rights Dataset (V2009. 03.27)

					SCAL	ED D	ATA:					
	RAW	DATA:			Ranke	d			Scaled Overall 0-100			
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007
Angola	2	2	2	2	2	5	7	6	66.7	66.7	66.7	66.7
Benin	2	2	2	2	2	5	7	6	66.7	66.7	66.7	66.7
Botswana	2	2	2	2	2	5	7	6	66.7	66.7	66.7	66.7
Burkina Faso	2	2	2	2	2	5	7	6	66.7	66.7	66.7	66.7
Burundi	2	3	3	3	2	1	1	1	66.7	100.0	100.0	100.0
Cameroon	2	2	2	2	2	5	7	6	66.7	66.7	66.7	66.7
Cape Verde	2	2	2	2	2	5	7	6	66.7	66.7	66.7	66.7
Central African Republic	2	2	2	2	2	5	7	6	66.7	66.7	66.7	66.7
Chad	2	2	2	2	2	5	7	6	66.7	66.7	66.7	66.7
Comoros	2	2	1	1	2	5	49	49	66.7	66.7	33.3	33.3
Congo (Brazzaville)	2	2	2	2	2	5	7	6	66.7	66.7	66.7	66.7
Congo, Democratic Rep.	0	2	2	2	51	5	7	6	0.0	66.7	66.7	66.7
Cote d'Ivoire	2	2	2	2	2	5	7	6	66.7	66.7	66.7	66.7
Djibouti	1	2	2	2	43	5	7	6	33.3	66.7	66.7	66.7
Equatorial Guinea	2	2	2	2	2	5	7	6	66.7	66.7	66.7	66.7
Eritrea	2	2	2	2	2	5	7	6	66.7	66.7	66.7	66.7
Ethiopia	2	2	2	2	2	5	7	6	66.7	66.7	66.7	66.7
Gabon	2	2	2	2	2	5	7	6	66.7	66.7	66.7	66.7
Gamoia	1	2	2	2	43	5	7	6	33.3	66.7	66.7	66.7
Gnana	2	2	2	2	2	5	7	6	66.7	66.7	66.7	66.7
Guinea-Bissau	2	2	2	2	2	5	7	6	66.7	66.7	66.7	66.7
Kenva	2	2	2	2	2	5	7	6	66.7	66.7	66.7	66.7
Lesotho	1	2	2	2	43	5	7	6	33.3	66.7	66.7	66.7
Liboria	2	2	2	2	2	5	7	6	66.7	66.7	66.7	66.7
Madagasaar	2	2	3	2	2	5	1	6	66.7	66.7	100.0	66.7
Malayvi	2	2	2	2	2	5	7	6	66.7	66.7	66.7	66.7
Malawi	2	2	2	2	2	5	7	6	66.7	66.7	66.7	66.7
Maii Marritania	2	2	2	2	2	5	7	6	66.7	66.7	66.7	66.7
Mauritania	1	2	2	2	43	5	7	6	33.3	66.7	66.7	66.7
Mauritius	2	2	2	2	2	5	1	6	66.7	66.7	66.7	66.7
Mozamoique	2	3	3	2	2	5	7	6	00.7	100.0	100.0	100.0
Namibia	2	2	2	2	42	5	7	6	22.2	66.7	66.7	66.7
Nigeria	2	2	2	2	43	5	10	0	33.3	00.7	00.7	00.7
Rwanda	2	2	2	2	2	50	49	49	66.7	100.0	100.0	100.0
Sao Tome and Principe	2	2	2	2	2	5	7	6	66.7	66.7	66.7	66.7
Senegal	2	2	2	2	2	5	7	6	66.7	66.7	66.7	66.7
Sevchelles	2	2	3	2	2	5	1	6	66.7	66.7	100.0	66.7
Sierra Leone	0	2	2	2	51	5	7	6	0.0	66.7	66.7	66.7
Somalia	0	-	0	-	51	53		53	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	2	2	2	43	5	7	6	33.3	66.7	66.7	66.7
Swaziland	2	2	2	2	2	5	7	6	66.7	66.7	66.7	66.7
Tanzania	2	2	2	2	2	5	7	6	66.7	66.7	66.7	66.7
Торо	2	2	2	2	2	5	7	6	66.7	66.7	66.7	66.7
Uganda	2	2	2	3	2	5	7	1	66.7	66.7	66.7	100.0
Zambia	2	2	2	2	2	5	7	6	66.7	66.7	66.7	66.7
Zimbabwe	2	2	2	2	2	5	7	6	66.7	66.7	66.7	66.7
Algeria	2	2	2	2	2	5	7	6	66.7	66.7	66.7	66.7
Egvnt	2	1	1	1	2	50	49	49	66.7	33.3	33.3	33.3
Lihva	1	1	1	1	43	50	49	49	33.3	33.3	33.3	33.3
Morocco	1	2	2	2	43	5	7	6	33.3	66.7	66.7	66.7
Tunisia	2	2	2	2	2	5	7	6	66.7	66.7	66.7	66.7

WOMEN'S SOCIAL RIGHT'S

The Cingranelli-Richards (CIRI) Human Rights Dataset (V2009. 03.27)

					SCAI	ED D	ATA:						
	RAW	DATA:			Ranke	d			Scaled Overall 0-100				
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007	
Angola	1	1	1	1	4	7	7	5	33.3	33.3	33.3	33.3	
Benin	1	1	1	0	4	7	7	29	33.3	33.3	33.3	0.0	
Botswana	1	1	1	0	4	7	7	29	33.3	33.3	33.3	0.0	
Burkina Faso	0	0	0	0	38	21	22	29	0.0	0.0	0.0	0.0	
Burundi	0	0	0	0	38	21	22	29	0.0	0.0	0.0	0.0	
Cameroon	0	0	0	0	38	21	22	29	0.0	0.0	0.0	0.0	
Cape Verde	1	1	1	1	4	7	7	5	33.3	33.3	33.3	33.3	
Central African Republic	1	0	0	1	4	21	22	5	33.3	0.0	0.0	33.3	
Chad	1	0	0	0	4	21	22	29	33.3	0.0	0.0	0.0	
Comoros	1	2	2	2	4	1	1	1	33.3	66.7	66.7	66.7	
Congo (Brazzaville)	1	0	0	1	4	21	22	5	33.3	0.0	0.0	33.3	
Congo, Democratic Rep.	0	0	0	0	38	21	22	29	0.0	0.0	0.0	0.0	
Cote d'Ivoire	1	0	0	0	4	21	22	29	33.3	0.0	0.0	0.0	
Djibouti	0	0	0	1	38	21	22	5	0.0	0.0	0.0	33.3	
Equatorial Guinea	0	0	1	1	38	21	7	5	0.0	0.0	33.3	33.3	
Eritrea	1	1	1	1	4	7	7	5	33.3	33.3	33.3	33.3	
Ethiopia	1	0	0	0	4	21	22	29	33.3	0.0	0.0	0.0	
Gabon	1	1	0	0	4	7	22	29	33.3	33.3	0.0	0.0	
Gambia	1	0	0	1	4	21	22	5	33.3	0.0	0.0	33.3	
Ghana	1	1	1	1	4	7	7	5	33.3	33.3	33.3	33.3	
Guinea	1	0	0	1	4	21	22	5	33.3	0.0	0.0	33.3	
Guillea-Dissau Vonua	1	1	1	1	4	7	7	5	33.3	33.3	33.3	33.3	
Kellya Lasotha	1	0	0	0	4	21	22	29	33.3	0.0	0.0	0.0	
Lesouio	0	0	1	1	38	21	7	5	0.0	0.0	33.3	33.3	
Liberia	1	1	1	1	4	7	7	5	33.3	33.3	33.3	33.3	
Madagascar	2	2	2	1	2	1	1	5	66.7	66.7	66.7	33.3	
Malawi	1	1	1	1	4	7	7	5	33.3	33.3	33.3	33.3	
Mali	1	0	0	1	4	21	22	5	33.3	0.0	0.0	33.3	
Mauritania	1	0	0	0	4	21	22	29	33.3	0.0	0.0	0.0	
Mauritius	1	2	2	2	4	1	1	1	33.3	66.7	66.7	66.7	
Mozambique	0	0	0	0	38	21	- 22	29	0.0	0.0	0.0	0.0	
Namibia	2	1	1	1	2	/	7	5	66.7	33.3	33.3	33.3	
Niger	0	0	0	1	38	21	22	5	0.0	0.0	0.0	33.3	
Dwondo	0	0	0	0	38	21	22	29	0.0	0.0	0.0	0.0	
Sao Tome and Principe	1	2	2	2	4	1	1	1	33.3	00.7	00.7	00.7	
Sao Tome and Emergel	1	2	2	1	4	1	1	5	33.3	66.7	66.7	33.3	
Sevehallas	1	0	0	0	4	21	22	29	33.3	0.0	0.0	0.0	
Sierra Leone	0	2	2	2	1	1	22	1	100.0	00.7	00.7	00.7	
Somalia	0	0	0	0	30	21	22	29	0.0	0.0	0.0	0.0	
South A frica	1	0	1	1	30	21	- 22	29	0.0	0.0	0.0	0.0	
South Africa	1	1	1	1	4	/	7	5	33.3	33.3	33.3	33.3	
Sucan	0	0	0	0	30	21	22	29	0.0	0.0	0.0	0.0	
Tanzania	1	0	0	1	30	21	22	29	0.0	0.0	0.0	0.0	
	1	0	0	0	4	21	22	5	33.3	0.0	0.0	0.0	
10g0 Lloendo	1	0	0	1	4	21	22	29	33.3	0.0	0.0	0.0	
Uganda Zambia	1	0	0	0	4	21	22	20	33.3	0.0	0.0	0.0	
Zaniola Zimbabwa	4	1	1	1	4	7	7	23	33.3	32.2	32.2	32.2	
Algeria	0	0	0	0	4	21	22	20	0.0	0.0	0.0	0.0	
Fount	1	0	0	0		21	22	20	33.3	0.0	0.0	0.0	
Egypt	1	0	0	0	4	21	22	29	33.3	0.0	0.0	0.0	
LIDya	0	1	1	1	38	7	7	5	0.0	33.3	33.3	33.3	
Tunisia	1	0	0	0	4	21	22	29	33.3	0.0	0.0	0.0	

WOMEN'S RIGHTS

Women's Economic, Political, and Social Rights Variables from The Cingranelli-Richards (CIRI) Human Rights Dataset (V2009. 03.27)

_	SCALED DATA:												
F	RAW DATA:				Rankec	l			Scaled Overall 0-100				
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007	
Angola	4	4	4	4	8	8	8	9	57.1	57.1	57.1	57.1	
Denin	4	4	4	3	8	8	8	28	57.1	57.1	57.1	42.9	
Botswana	4	4	4	2	8	8	8	43	57.1	57.1	57.1	28.6	
Burkina Faso	2	3	3	3	45	24	25	28	28.6	42.9	42.9	42.9	
Burundi	3	4	4	3	36	8	8	28	42.9	57.1	57.1	42.9	
Cameroon	3	2	2	2	36	43	42	43	42.9	28.6	28.6	28.6	
Cape Verde	4	4	4	4	8	8	8	9	57.1	57.1	57.1	57.1	
Central African Republic	4	2	2	3	8	43	42	28	57.1	28.6	28.6	42.9	
Chad	4	2	2	2	8	43	42	43	57.1	28.6	28.6	28.6	
Comoros	4	5	4	4	8	4	8	9	57.1	71.4	57.1	57.1	
Congo (Brazzaville)	4	3	3	4	8	24	25	9	57.1	42.9	42.9	57.1	
Congo, Democratic Rep.	0	2	2	2	51	43	42	43	0.0	28.6	28.6	28.6	
Cote d'Ivoire	5	3	3	3	5	24	25	28	71.4	42.9	42.9	42.9	
Djibouti	2	3	4	4	45	24	8	9	28.6	42.9	57.1	57.1	
Equatorial Guinea	3	3	4	4	36	24	8	9	42.9	42.9	57.1	57.1	
Eritrea	4	4	4	4	8	8	8	9	57.1	57.1	57.1	57.1	
Ethiopia	4	3	3	2	8	24	25	43	57.1	42.9	42.9	28.6	
Gabon	4	4	3	3	8	8	25	28	57.1	57.1	42.9	42.9	
Gambia	3	3	2	4	36	24	42	9	42.9	42.9	28.6	57.1	
Ghana	4	4	4	3	8	8	8	28	57.1	57.1	57.1	42.9	
Guinea	4	3	3	4	8	24	25	9	57.1	42.9	42.9	57.1	
Guinea-Bissau	4	3	4	4	8	24	8	9	57.1	42.9	57.1	57.1	
Kenya	3	3	2	2	36	24	42	43	42.9	42.9	28.6	28.6	
Lesotho	2	2	4	4	45	43	8	9	28.6	28.6	57.1	57.1	
Liberia	4	4	5	4	8	8	4	9	57.1	57.1	71.4	57.1	
Madagascar	6	5	5	5	2	4	4	4	85.7	71.4	71.4	71.4	
Malawi	4	4	4	4	- 8	8	8	9	57.1	57 1	57.1	57.1	
Mali	4	3	3		8	24	25	9	57.1	42.9	42.9	57.1	
Mauritania	4	4	3	4	8	8	25	9	57.1	57.1	42.0	57.1	
Mauritius	4	6	6	7	8	2	1	1	57.1	85.7	85.7	100.0	
Mozambique	-	4	4	3	8	8	8	28	57.1	57.1	57.1	12.0	
Normihia	-	4	4	5	2	0	0	20	95.1	57.1	57.1	71.4	
Namior	0	4	4	5	45	42	25	4	00.7	20.0	42.0	F7 4	
Niger	2	2	3	4	45	43	25	9	28.0	28.0	42.9	57.1	
Rwanda	3	2	1	2	30	43	52	43	42.9	20.0	14.3	20.0	
Sao Tome and Principe	4	7	0	1	8	1	1	1	57.1	100.0	85.7	100.0	
Sao Tonic and Emergel	4	5	5	4	8	4	4	g	57.1	/1.4	/1.4	57.1	
Souchallas	4	3	2	4	8	24	42	9	57.1	42.9	28.6	57.1	
Sierra Leone	7	6	6	6	1	2	1	3	100.0	85.7	85.7	85.7	
Siella Leolie	0	3	3	3	51	24	25	28	0.0	42.9	42.9	42.9	
Somana	0	0	0	0	51	53	53	53	0.0	0.0	0.0	0.0	
South Africa	6	5	5	5	2	4	4	4	85.7	71.4	71.4	71.4	
Sudan	1	3	2	2	50	24	42	43	14.3	42.9	28.6	28.6	
Swazıland	3	3	3	3	36	24	25	28	42.9	42.9	42.9	42.9	
Tanzania	4	3	3	3	8	24	25	28	57.1	42.9	42.9	42.9	
Togo	5	2	3	3	5	43	25	28	71.4	28.6	42.9	42.9	
Uganda	4	3	3	5	8	24	25	4	57.1	42.9	42.9	71.4	
Zambia	4	3	3	2	8	24	25	43	57.1	42.9	42.9	28.6	
Zimbabwe	4	4	4	4	8	8	8	9	57.1	57.1	57.1	57.1	
Algeria	3	3	3	3	36	24	25	28	42.9	42.9	42.9	42.9	
Egypt	4	2	2	2	8	43	42	43	57.1	28.6	28.6	28.6	
Libya	3	2	2	3	36	43	42	28	42.9	28.6	28.6	42.9	
Morocco	2	4	4	5	45	8	8	4	28.6	57.1	57.1	71.4	
Tunisia	5	4	3	3	5	8	25	28	71.4	57.1	42.9	42.9	

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 achieve 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.

In order to measure the extent to which nation-states are providing this essential political good and its components, the 2009 Index of African Governance examines eleven key sub-sub-categories (indicators) over four sub-categories, as described below.

In previous years, the 2007 and 2008 Ibrahim Indexes of African Governance included the Environmental Performance Index (EPI) directly in its calculations. This year, we have chosen to include the EPI only for reference and in alternate scores for the category of Sustainable Economic Opportunity. This change does not reflect any change in the importance of this indicator, but continuing discussions of methodology, our continuing concerns about missing data for a number of countries, and the fact that the data employed in the construction of the EPI are less up-to-date than is ideal for our project. Further information is provided in the descriptive notes for this indicator.

The results for this category show clearly the effects of wealth and natural resources, particularly for countries at the top of the list. In this category in 2007, the top ranked country was the Seychelles, followed by Libya, Mauritius, South Africa, Equatorial Guinea, Tunisia, Gabon, Botswana, Algeria, and Egypt. At the bottom of the list were Somalia (53rd), Guinea-Bissau, Zimbabwe, Chad, and the Democratic Republic of the Congo. Looking at scores over time, Zimbabwe showed the largest decline in scores in this category between the latest two Index years (2006 and 2007).

In the alternate Sustainable Economic Opportunity category scores for 2007 (i.e., including the EPI), the countries in the top ten remain relatively constant, although rankings shift: Mauritius is at the top, followed by the Seychelles, Tunisia, Gabon, South Africa, Algeria, Egypt, Libya, Botswana, and Morocco. At the bottom of the list are Guinea-Bissau (53rd), Niger, Chad, the Democratic Republic of the Congo, and Sierra Leone.¹

The specific sub-categories and indicators of this category are:

Wealth Creation

1. *GDP per capita based on purchasing power parity (PPP)*, using estimates from the International Comparison Program, as compiled by the World Bank's World Development Indicators (WDI) 2009.²

¹ These bottom five countries illustrate one reason that the EPI is not included in the 2009 Index: for each of these countries, low EPI scores have served to bring down their category scores—as they should. The problem is that because EPI scores are absent for a number of African countries, and because we lack other information upon which to estimate missing scores in a meaningful way, the category scores of some countries that are not ranked in the EPI appear to be significantly affected by their lack of EPI scores. Somalia, for instance, ranks 48th in the alternate rankings, buoyed by the estimated EPI score.

² Last accessed 22 July 2009.

2. Economic growth, measured in terms of annual percentage changes in GDP per capita, using 2009 WDI figures.³

Macroeconomic Stability and Financial Integrity

1. Annual inflation rates, using data from the International Monetary Fund's World Economic Outlook (April 2009).

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 Olson to measure the extent to which money is held in bank deposits, etc. (suggesting higher reliability), rather than currency (suggesting lower reliability).⁴ Figures for each country are estimated by us, using data from the IMF's *International Financial Statistics*.⁵ (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.

The Arteries of Commerce

1. The density of a nation's paved road network per 1,000 people from the International Road Federation and directly from official, national sources, collected by our in-country researchers.

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* 2006, which was released June–December 2008 (the latest available).

3. Telephone subscribers (fixed/land lines and mobile) per 100 inhabitants, from the International Telecommunication Union.

4. Internet users per 100 inhabitants, based on estimates from the International Telecommunication Union.

The 2007 and 2008 Ibrahim Indexes of African Governance also included a measure of computer usage. We have dropped this indicator in the 2009 Index because it is closely related to the indicator of internet usage, and because of concerns about the accuracy of the estimates.

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.⁶ 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.

³ Last accessed 22 July 2009.

⁴ Christopher Clague, Philip Keefer, Stephen Knack, and Mancur Olson, "Contract-Intensive Money: Contract Enforcement, Property Rights, and Economic Performance," *Journal of Economic Growth*, IV (1999), 185–211.

⁵ Last accessed 13 May 2009.

⁶ Daniel C. Esty, M.A. Levy, C.H. Kim, A. de Sherbinin, T. Srebotnjak, and V. Mara, 2008 *Environmental Performance Index* (New Haven, 2008).
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Readers should note that the 2009 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."⁷ 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 economic and social rights. Human development is addressed in the 2009 Index of African Governance under our category of Human Development.

⁷ 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 2007 SCORE)

1	Seychelles	73.8
2	Libya	60.7
3	Mauritius	59.8
4	South Africa	56.1
5	Equatorial Guinea	53.0
6	Tunisia	52.5
7	Gabon	50.8
8	Botswana	50.5
9	Algeria	48.9
10	Egypt	47.2
11	Morocco	46.8
12	Angola	44.1
13	Sao Tome and Principe	43.8
14	Cape Verde	43.2
15	Namibia	43.1
16	Swaziland	40.0
17	Zambia	39.7
18	Gambia	39.1
19	Nigeria	38.9
20	Kenya	38.6
21	Sudan	38.2
22	Lesotho	37.2
23	Djibouti	37.2
24	Mozambique	36.9
25	Ghana	36.7
26	Cameroon	36.3
27	Mauritania	36.2
28	Ethiopia	36.2
29	Tanzania	36.0
30	Uganda	35.8
31	Senegal	35.8
32	Rwanda	35.1
33	Malawi	34.8
34	Sierra Leone	34.7
35	Madagascar	34.7
36	Benin	34.1
37	Burkina Faso	33.2
38	Congo (Brazzaville)	33.0
39	Cote d'Ivoire	32.9
40	Togo	32.8
41	Mali	32.8
42	Liberia	32.5
43	Guinea	31.6
44	Burundi	31.4
45	Comoros	31.0
46	Central African Republic	30.9
47	Niger	30.6
48	Eritrea	29.6
49	Congo, Democratic Republic	28.0
50	Chad	25.7
51	Zimbabwe	23.5
52	Guinea-Bissau	21.1
53	Somalia	3.2

SUSTAINABLE ECONOMIC OPPORTUNITY CATEGORY SCORES (WITHOUT EPI; LISTED BY COUNTRY "A" TO "Z")

	2000	2002	2005	2006	2007
Angola	30.1	35.2	40.5	41.2	44.1
Benin	30.9	31.7	31.8	32.3	34.1
Botswana	46.1	45.7	47.0	48.1	50.5
Burkina Faso	29.5	32.3	32.7	33.3	33.2
Burundi	29.1	31.2	29.6	32.0	31.4
Cameroon	33.0	33.2	34.2	35.4	36.3
Cape Verde	38.0	38.7	41.2	43.7	43.2
Central African Republic	26.4	26.0	27.6	29.3	30.9
Chad	23.1	27.6	28.3	25.9	25.7
Comoros	31.4	32.7	33.9	32.2	31.0
Congo (Brazzaville)	34.1	32.1	35.4	35.6	33.0
Congo, Democratic Rep.	17.8	22.8	26.3	26.2	28.0
Cote d'Ivoire	27.7	28.1	31.7	32.2	32.9
Djibouti	34.0	35.9	36.9	37.5	37.2
Equatorial Guinea	39.2	48.6	50.0	43.5	53.0
Eritrea	21.5	28.7	29.6	28.5	29.6
Ethiopia	32.1	30.5	35.6	35.8	36.2
Gabon	41.3	42.4	47.0	47.2	50.8
Gambia	33.3	30.2	35.0	36.6	39.1
Ghana	29.6	30.6	33.0	34.4	36.7
Guinea	29.2	30.9	31.1	30.5	31.6
Guinea-Bissau	21.7	13.8	19.3	19.5	21.1
Kenva	31.6	31.8	35.6	37.1	38.6
Lesotho	32.1	33.3	34.8	38.3	37.2
Liberia	37.6	29.1	29.3	30.8	32.5
Madagascar	30.3	22.8	31.8	35.2	34.7
Malawi	30.8	28.7	32.2	34.5	34.8
Mali	30.2	30.3	31.5	33.6	32.8
Mauritania	30.6	31.5	35.2	40.8	36.2
Mouritius	47.3	49.5	55.6		50.8
Magambigua	28.2	31.7	32.1	34.1	36.0
Namibia	38.6	40.6	41.1	41.2	43.1
Niger	28.5	30.6	31.1	32.4	30.6
Nigeria	33.1	31.3	35.8	37.4	38.9
Rwanda	32.8	36.4	35.3	34.5	35.1
Sao Tome and Principe	22.0	35.8	37.5	36.0	43.8
See Tome and Emerge Senegal	32.2	31.6	34.8	34.0	35.8
Sevehelles	60.8	61.2	67.2	70.7	73.8
Sierra Leone	20.7	30.3	32.4	32.0	34.7
Somalia	1.6	1.4	3.1	3.2	3.2
South A frica	48.8	50.4	54.2	55 /	56.1
South Africa	32.6	32.6	34.0	37.7	38.2
Sucal	30.6	36.6	38.5	30.6	40.0
Swazilalid	22.5	34.2	30.5	25.1	40.0
Tanzania	28.0	33.3	33.3	33.2	32.8
10g0	32.8	33.5	34.0	36.2	35.8
Uganda Zambia	36.4	35.0	37.9	40.1	30.7
Zaniola	27.9	30.0	30.2	30.1	
Algeria	30.0	40.9	45.0	46.2	42.0
Egypt	30.0	38.4	12.3	45.2	40.8
Egypt	51.2	52.0	40.0	40.2	47.2
L1Dya_	35.0	32.9	13.6	17 E	46.9
Morocco	JU.9	41.0	47.0	47.0	40.0
i unista	41.7	41.0	47.9	50.0	52.5

SUSTAINABLE ECONOMIC OPPORTUNITY RANK (WITHOUT EPI; LISTED BY COUNTRY "A" TO "Z")

	2000	2002	2005	2006	2007
Angola	36	20	14	14	12
Benin	31	32	40	41	36
Botswana	5	6	8	6	8
Burkina Faso	39	27	34	37	37
Burundi	41	36	46	44	44
Cameroon	21	24	29	28	26
Cape Verde	13	12	12	11	14
Central African Republic	47	49	50	48	46
Chad	48	48	49	51	50
Comoros	30	25	32	43	45
Congo (Brazzaville)	17	29	22	27	38
Congo, Democratic Rep.	52	50	51	50	49
Cote d'Ivoire	46	47	41	42	39
Djibouti	18	17	18	20	23
Equatorial Guinea	9	5	5	12	5
Eritrea	51	45	47	49	48
Ethiopia	27	41	21	26	28
Gabon	7	7	7	8	7
Gambia	19	43	25	24	18
Ghana	38	40	33	33	25
Guinea	40	37	44	46	43
Guinea-Bissau	50	52	52	52	52
Kenva	29	30	20	22	20
Lesotho	28	23	28		22
Liberia	14	44	48	45	42
Madagascar	34	51	30	29	35
Malawi	32	46	37	31	33
Malawi	35	40	42	36	41
Iviaii	33	34	72	15	27
Mauritania	33	4	24	3	21
Mauritius	43	31	38	34	24
Nomibia	12	10	12	12	15
Niger	12	20	13	10	13
Nigeria	42	39	45	40	47
Rwanda	20	16	19	21	22
Sao Tome and Principe	40	10	23	32	12
Sao Tome and Emergel	49	10	27	25	13
Sevehallas	20	1	1	1	1
Sierra Leone	27	11	25	30	24
Somalia	52	52	53	53	52
South A frice	33	2	4	55	4
South Africa	3	3	4	4	4
Sudan	24	20	15	13	21
Swaziland	0	15	15	17	10
Tanzania	25	21	20	30	29
logo	44	20	30	30	40
\cup ganda	23	10	30	20	17
	15	19	10	10	51
Limbadwe	40	აძ ი	40	4/	0
Aigella	10	9	9	9	9
Egypt	11	13	11	10	10
Libya	2	2	2	2	2
Morocco	16	14	10	/	11
I unisia	6	8	6	5	6

ALTERNATE SUSTAINABLE ECONOMIC OPPORTUNITY RANKINGS (WITH EPI; LISTED BY 2007 SCORE)

1	Mauritius	69.9
2	Seychelles	68.4
3	Tunisia	64.4
4	Gabon	62.6
5	South Africa	61.3
6	Algeria	60.9
7	Egypt	59.2
8	Libya	58.6
9	Botswana	56.8
10	Morocco	56.3
11	Equatorial Guinea	52.8
12	Namibia	52.6
13	Kenya	48.1
14	Ghana	47.9
15	Sao Tome and Principe	45.9
16	Cape Verde	45.5
17	Congo (Brazzaville)	44.4
18	Swaziland	44.3
19	Cameroon	43.1
20	Tanzania	42.9
21	Gambia	42.4
22	Senegal	42.1
23	Cote d'Ivoire	41.4
24	Uganda	41.3
25	Lesotho	41.0
26	Nigeria	40.1
27	Zambia	40.1
28	Ethiopia	39.8
29	Тодо	39.5
30	Malawi	39.4
31	Sudan	39.2
32	Liberia	37.5
33	Mozambique	37.2
34	Zimbabwe	37.0
35	Benin	36.5
36	Rwanda	36.5
37	Comoros	36.3
38	Madagascar	35.9
39	Djibouti	35.3
40	Eritrea	35.3
41	Central African Republic	34.0
42	Burundi	33.6
43	Angola	33.3
44	Guinea	31.6
45	Mauritania	30.5
46	Burkina Faso	28.3
47	Mali	27.9
48	Somalia	27.8
49	Sierra Leone	26.7
50	Congo, Democratic Republic	26.3
51	Chad	23.7
52	Niger	23.0
53	Guinea-Bissau	22.6

ALTERNATE SUSTAINABLE ECONOMIC OPPORTUNITY CATEGORY SCORES (WITH EPI; LISTED BY COUNTRY "A" TO "Z")

	2000	2002	2005	2006	2007
Angola	22.8	26.7	30.7	31.2	33.3
Benin	34.1	34.7	34.7	35.1	36.5
Botswana	53.5	53.2	54.2	55.0	56.8
Burkina Faso	25.5	27.6	27.9	28.4	28.3
Burundi	31.8	33.4	32.2	34.0	33.6
Cameroon	40.6	40.8	41.5	42.4	43.1
Cape Verde	41.6	42.1	44.0	45.9	45.5
Central African Republic	30.7	30.4	31.6	32.9	34.0
Chad	21.7	25.1	25.6	23.8	23.7
Comoros	36.6	37.6	38.5	37.2	36.3
Congo (Brazzaville)	45.2	43.7	46.2	46.3	44.4
Congo Democratic Rep	18.7	22.4	25.0	24.9	26.3
Cote d'Ivoire	37.6	37.8	40.5	40.9	20.0
Diibouti	22.0	34.0	40.5	40.0	25.2
Equatorial Guinea	42.5	40.5	50.6	45.7	53.5
Eritrea	42.5	49.5	35.0	45.7	52.8
Ethiopia	29.2	34.0	35.2	34.4	35.5
Gabon	30.8	35.6	39.4	39.0	39.8
Cambia	55.5	56.3	59.8	59.9	62.6
Gambia	38.1	35.8	39.3	40.5	42.4
Ghana	42.5	43.3	45.1	46.1	47.9
Guinea	29.8	31.0	31.1	30.7	31.6
Guinea-Bissau	23.1	17.2	21.3	21.4	22.6
Kenya	42.9	43.0	45.9	47.1	48.1
Lesotho	37.2	38.1	39.2	41.8	41.0
Liberia	41.3	34.9	35.0	36.2	37.5
Madagascar	32.7	27.1	33.8	36.3	35.9
Malawi	36.5	34.9	37.5	39.3	39.4
Mali	26.0	26.1	27.0	28.6	27.9
Mauritania	26.2	26.9	29.7	33.9	30.5
Mauritius	60.5	62.1	66.7	67.3	69.9
Mozambique	30.7	33.3	33.6	35.1	37.2
Namibia	49.1	50.7	51.0	51.1	52.6
Niger	21.3	23.0	23.3	24.3	23.0
Nigeria	35.8	34.4	37.8	39.0	40.1
Rwanda	34.8	37.4	36.6	36.0	36.5
Sao Tome and Principe	30.3	39.9	41.2	40.7	45.9
Senegal	39.4	38.9	41.3	40.8	42.1
Seychelles	58.7	59.0	63.5	66.1	68.4
Sierra Leone	22.9	30.1	25.0	25.3	26.7
Somalia	27.0	26.9	27.7	27.8	27.8
South Africa	55.8	56.9	59.8	60.7	61.3
Sudan	35.0	35.0	36.1	38.9	39.2
Swaziland	43.9	41.7	43.2	44.0	44.3
Tanzania	40.3	41.6	42.1	42.2	42.9
Торо	35.9	39.1	39.1	39.8	39.5
Uganda	39.0	39.5	40.0	41.6	41.3
Zambia	37.6	37.1	38.6	40.3	40.1
Zimbabwe	40.2	42.5	42.1	42.0	37.0
Algeria	53.5	54.9	58.7	59.0	60.9
Egypt	53.1	52.6	56.3	57.7	59.2
Libva	51.5	52.8	57.3	57.4	58.6
Morocco	48.1	49.9	53.8	56.8	56.3
Tunisia	56.3	56.3	60.9	63.1	64.4

ALTERNATE SUSTAINABLE ECONOMIC OPPORTUNITY RANK (WITH EPI; LISTED BY COUNTRY "A" TO "Z")

	2000	2002	2005	2006	2007
Angola	50	48	44	44	43
Benin	35	35	38	38	35
Botswana	6	7	9	10	9
Burkina Faso	47	44	46	47	46
Burundi	38	39	41	41	42
Cameroon	19	20	20	18	19
Cape Verde	17	17	16	15	16
Central African Republic	40	42	42	43	41
Chad	51	50	49	52	51
Comoros	29	27	30	33	37
Congo (Brazzaville)	12	13	13	13	17
Congo, Democratic Rep.	53	52	50	50	50
Cote d'Ivoire	25	26	23	23	23
Djibouti	36	38	37	37	39
Equatorial Guinea	16	12	12	16	11
Eritrea	43	36	35	40	40
Ethiopia	28	31	25	29	28
Gabon	5	5	5	5	4
Gambia	24	30	26	26	21
Ghana	15	14	15	14	14
Guinea	42	41	43	45	44
Guinea-Bissau	48	53	53	53	53
Kenya	14	15	14	12	13
Lesotho	27	25	27	21	25
Liberia	18	33	36	35	32
Madagascar	37	45	39	34	38
Malawi	30	34	32	30	30
Mali	46	49	48	46	47
Mauritania	45	47	45	42	45
Mauritius	1	1	1	1	1
Mozambique	39	40	40	39	33
Namibia	10	10	11	11	12
Niger_	52	51	52	51	52
Nigeria Davida	32	37	31	31	26
Kwanda Saa Tama and Drinaina	34	28	33	36	36
Sao Tome and Principe	41	21	22	25	15
Senegar	22	24	21	24	22
Sierra Leone	2	2	2	2	2
Siena Leone	49	43	51	49	49
Solitalia South Africa	44	40	47	48	48
South Africa	*	22	4	4	21
Sudan	13	18	17	17	18
Swaznand	20	10	10	10	20
Tanzania	20	23	28	28	20
10g0 Licondo	23	23	20	20	23
Uganda Zambia	26	29	29	27	27
Zambahwa	21	16	18	20	34
Algeria	7	6	6	6	6
Favnt	8	9	8	7	7
Egypt Libro	9	8	7	8	. 8
Libya_ Morocco	11	11	10	9	10
Tunisia	3	4	3	3	3

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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) 2009
2	Economic growth, measured in terms of annual percentage changes in GDP per capita	World Bank's World Development Indicators (WDI) 2009

Sub-Category 2: Macroeconomic Stability and Financial Integrity

3	Annual inflation rates	International Monetary Fund's World Economic Outlook (April 2009)
4	Government budget surplus and deficits as a percentage of GDP	African Development Bank's Selected Statistics on African Countries 2008
5	Reliability of financial institutions, based on Contract Intensive Money (CIM), an indicator developed in Christopher Clague, Philip Keefer, Stephen Knack, and Mancur Olson, "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 2009
6	The overall business environment, using as an indicator the number of days necessary to start a business	World Bank's Doing Business surveys

Sub-Category 3: The Arteries of Commerce

7	The density of paved road network per 1,000 people	International Road Federation and official statistics collected by our own in-country researchers
8	Electricity capacity, measured as total installed capacity per capita	Energy Information Administration's International Energy Annual 2006, which was released June-December 2008
9	Telephone subscribers (fixed and mobile) per 100 inhabitants	International Telecommunication Union
10	Internet users per 100 inhabitants	

Sub-Category 4: Environmental Sensitivity

	Assessed using the composite 2008	Daniel C. Esty, M.A. Levy, C.H. Kim, A. de Sherbinin,
	Environmental Performance Index. Category	T. Srebotnjak, and V. Mara, 2008 Environmental
11	scores are presented with and without this indicator.	Performance Index (New Haven, 2008)
	See the descriptive notes for further details.	

SUSTAINABLE ECONOMIC OPPORTUNITY

a) Wealth Creation

b) Macroeconomic Stability and Financial Integrity

	GDP per Capita	GDP Growth	Inflation	Surplus/ Deficits	Reliability of Financial Institutions
Angola	5085.3	18.33	12.2	10.0	0.90
Benin	1239.0	1.52	1.3	-2.0	0.73
Botswana	12847.5	4.03	7.1	7.1	0.97
Burkina Faso	1061.4	1.03	0.2	-6.0	0.73
Burundi	321.7	-0.34	8.3	0.7	0.79
Cameroon	2009.4	1.50	1.1	4.5	0.82
Cape Verde	2871.3	4.59	4.4	-2.3	0.91
Central African Republic	673.7	2.31	0.9	2.5	0.50
Chad	1394.9	-2.11	7.4	0.8	0.38
Comoros	1079.6	-3.33	4.5	-2.0	0.60
Congo (Brazzaville)	3315.7	-3.61	2.6	15.1	0.67
Congo, Democratic Rep.	281.8	3.49	16.7	2.2	0.64
Cote d'Ivoire	1595.7	-0.15	1.9	0.3	0.63
Djibouti	1946.4	2.19	5.0	-1.6	0.87
Equatorial Guinea	28922.5	9.88	2.8	22.8	0.82
Eritrea	591.1	-1.81	9.3	-18.1	0.84
Ethiopia	735.6	8.39	15.8	-3.1	0.79
Gabon	14322.9	4.02	5.0	9.6	0.78
Gambia	1157.1	3.58	5.4	1.8	0.80
Ghana	1260.2	4.25	10.7	-8.2	0.75
Guinea	1076.2	-0.64	34.7	1.0	0.61
Guinea-Bissau	450.9	-0.28	4.6	-17.3	0.37
Kenya	1456.5	4.18	9.8	-1.7	0.88
Lesotho	1455.6	4.32	8.0	7.7	0.92
Liberia	341.8	5.42	11.4	1.5	0.73
Madagascar	880.6	3.39	10.4	-3.5	0.73
Malawi	718.5	5.19	7.9	-1.5	0.76
Mali	1022.9	-0.25	1.5	-1.0	0.68
Mauritania	1820.2	-0.63	7.3	-2.8	0.86
Mauritius	10667.9	4.04	9.1	-4.3	0.94
Mozambique	757.8	5.29	8.2	-5.1	0.86
Namibia	4868.1	4.22	6.7	1.9	0.97
Niger	592.5	-0.13	0.1	-0.8	0.63
Nigeria	1859.5	3.58	5.5	5.6	0.87
Rwanda	818.2	3.03	9.1	-0.4	0.82
Sao Tome and Principe	1547.1	4.06	18.5	124.9	0.86
Senegal	1572.9	1.93	5.9	-5.5	0.75
Seychelles	15481.7	5.76	5.3	-5.8	0.91
Sierra Leone	640.9	4.92	11.7	23.7	0.71
Somalia					
South Africa	9214.6	4.11	7.1	0.8	0.96
Sudan	1970.1	7.74	8.0	-3.8	0.71
Swaziland	4522.4	2.76	8.2	-2.0	0.95
Tanzania	1141.0	4.52	7.0	-4.5	0.81
Togo	744.3	-0.74	1.0	-2.5	0.73
Uganda	999.9	4.33	6.8	-2.8	0.77
Zambia	1282.9	4.01	10.7	-1.8	0.88
Zimbabwe	155.2	-5.67	10452.6	-24.6	0.88
Aigena	7309.5	1.57	3.6	11.4	0.77
Egypt	5051.6	5.23	11.0	-5.7	0.87
Libya	13565.0	4.76	6.2	40.2	0.82
Morocco	3879.7	1.50	2.0	-3.4	0.81
1 unisia	7101.8	5.32	3.1	-3.1	0.85

SUMMARY OF RAW DATA (2007)

c) Arteries of Commerce

	Density of				
Business	Paved Road	Electricity	Phone	Internet	
Environment	Network	Installed	Subscribers	Usage	
119	0.46	0.05	28.80	2.84	
31	0.20	0.01	24.01	1.79	
108	4.47	0.07	68.10	5.28	
18	0.18	0.02	11.77	0.75	
43	0.15	0.00	3.81	0.70	
37	0.27	0.05	25.32	2.93	
52	1.94	0.15	45.55	8.28	
14	0.16	0.01	2.92	0.38	
75	0.03	0.00	4.64	0.85	
23	1.07	0.01	8.87	3.42	
37	0.23	0.03	16.80	2.76	
155	0.04	0.04	10.55	0.37	
40	0.34	0.06	22.04	2.24	
37	1.66	0.14	6.81	1.34	
136	1.38	0.03	17.56	1.56	
84	0.18	0.03	2.55	2.51	
16	0.07	0.01	2.66	0.37	
58	0.70	0.32	84.08	5.77	
32	0.42	0.02	52.56	6.21	
42	0.47	0.06	34.89	3.85	
41	0.46	0.03	21.32	0.78	
233	0.57	0.01	19.52	2.21	
44	0.25	0.03	30.76	7.95	
73	0.67	0.04	20.41	3.45	
99	0.20	0.05	15.58	0.55	
7	0.28	0.01	12.64	0.65	
37	0.50	0.02	8.49	0.97	
26	0.30	0.02	21.04	0.81	
65	0.95	0.06	46.33	1.43	
7	1.58	0.55	101.47	26.75	
29	0.25	0.11	15.45	0.91	
99	2.79	0.13	44.93	4.84	
23	0.28	0.01	2.65	0.39	
34	0.20	0.04	28.42	6.77	
16	0.27	0.00	6.96	2.12	
144	1.90	0.06	23.95	14.59	
58	0.37	0.04	32.79	6.89	
38	5.76	1.12	119.93	38.38	
26	0.18	0.01	2.00	0.24	
	0.30	0.01	8.02	1.12	
31	1.38	0.85	95.24	8.07	
39	0.11	0.03	21.18	8.66	
61	0.98	0.11	25.86	4.10	
29	0.17	0.02	20.56	0.97	
53	0.36	0.01	20.47	5.42	
28	0.53	0.01	14.22	3.67	
33	1.69	0.15	22.18	4.87	
96	1.30	0.18	12.61	10.85	
24	2.25	0.19	90.47	10.34	
9	0.99	0.28	51.78	13.16	
	7.73	0.90	48.16	4.72	
12	1.16	0.17	71.81	21.14	
11	1.24	0.33	90.54	17.10	

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

SUSTAINABLE ECONOMIC OPPORTUNITY SUMMARY

	a) Wealth (Creation	b) Macroe	conomic Stab	ility and Financia	ıl Integrity	c) Arteries of Commerce			
	GDP per Capita	GDP Growth	Inflation	Surplus/ Deficits	Reliability of Financial Institutions	Business Environment	Density of Paved Road Network	Electricity Installed		
Angola	17.1	91.0	99.9	31.0	90.7	50.4	4.8	4.1		
Benir	1 _{3.8}	46.7	100.0	23.8	68.6	89.4	1.9	0.3		
Botswana	1 44.1	53.3	99.9	29.3	100.0	55.3	50.0	6.0		
Burkina Fasc) 3.2	45.4	100.0	21.4	69.8	95.1	1.7	1.2		
Burund	i 0.6	41.8	99.9	25.5	76.2	84.1	1.4	0.1		
Cameroor	n 6.4	46.7	100.0	27.7	80.0	86.7	2.7	4.0		
Cape Verde	9.4	54.8	100.0	23.6	92.3	80.1	21.5	12.7		
Central African Republic	2 1.8	48.8	100.0	26.5	40.1	96.9	1.5	0.6		
Chac	4.3	37.2	99.9	25.5	24.6	69.9	0.0	0.0		
Comoros	3.2	34.0	100.0	23.8	52.2	92.9	11.7	0.5		
Congo (Brazzaville)	11.0	33.2	100.0	34.1	61.0	86.7	2.3	2.6		
Congo, Democratic Rep	. 0.4	51.9	99.8	26.4	57.3	34.5	0.1	3.3		
Cote d'Ivoire	5.0	42.3	100.0	25.2	56.7	85.4	3.5	4.8		
Djibout	i 6.2	48.5	100.0	24.1	86.9	86.7	18.3	12.4		
Equatorial Guinea	a 100.0	68.7	100.0	38.7	80.7	42.9	15.2	2.1		
Eritrea	ì 1.5	38.0	99.9	14.2	83.2	65.9	1.7	2.6		
Ethiopia	a 2.0	64.8	99.8	23.2	77.4	96.0	0.4	0.7		
Gabor	1 49.2	53.3	100.0	30.8	76.1	77.4	7.6	27.5		
Gambia	a 3.5	52.2	99.9	26.1	77.6	88.9	4.4	1.3		
Ghana	1 3.8	53.9	99.9	20.1	71.1	84.5	4.9	5.4		
Guinea	3.2	41.0	99.7	25.6	53.5	85.0	4.9	2.4		
Guinea-Bissau	1 1.0	42.0	100.0	14.6	23.2	0.0	6.1	0.9		
Kenya	4.5	53.7	99.9	24.0	87.8	83.6	2.5	2.7		
Lesothe	9 4.5	54.1	99.9	29.7	93.0	70.8	7.3	3.1		
Liberia	a 0.6	57.0	99.9	25.9	69.0	59.3	1.9	4.4		
Madagascar	r 2.5	51.7	99.9	22.9	69.1	100.0	2.8	0.8		
Malaw	i 2.0	56.4	99.9	24.1	73.0	86.7	5.3	1.8		
Mal	i 3.0	42.1	100.0	24.4	62.5	91.6	3.0	1.8		
Mauritania	a 5.8	41.1	99.9	23.3	86.0	74.3	10.4	4.7		
Mauritius	36.5	53.4	99.9	22.4	96.0	100.0	17.4	47.8		
Mozambique	2.1	56.7	99.9	22.0	86.0	90.3	2.4	9.7		
Namibia	16.4	53.8	99.9	26.2	99.4	59.3	31.1	11.0		
Niger	r 1.5	42.4	100.0	24.5	55.8	92.9	2.8	0.4		
Nigeria	1 5.9	52.1	99.9	28.4	87.6	88.1	1.9	3.4		
Rwanda	a 2.3	50.7	99.9	24.8	80.3	96.0	2.8	0.1		
Sao Tome and Principe	4.8	53.4	99.8	100.0	85.5	39.4	21.1	4.8		
Senega	4.9	47.8	99.9	21.7	72.3	77.4	3.8	3.4		
Seychelles	53.3	57.9	99.9	21.5	92.4	86.3	64.6	98.0		
Sierra Leone	1.7	55.7	99.9	39.3	67.0	91.6	1.7	0.6		
Somalia	1						3.0	0.4		
South Africa	1 31.5	53.6	99.9	25.5	98.6	89.4	15.2	74.5		
Sudar	1 6.3	63.1	99.9	22.7	67.1	85.8	0.9	2.3		
Swazilanc	15.2	50.0	99.9	23.8	97.6	76.1	10.8	9.6		
Tanzania	3.4	54.6	99.9	22.3	79.8	90.3	1.6	1.8		
Togo	2.0	40.8	100.0	23.5	69.0	79.6	3.7	0.9		
Uganda	a 2.9	54.1	99.9	23.3	74.1	90.7	5.6	0.7		
Zambia	3.9	53.3	99.9	23.9	87.7	88.5	18.7	12.5		
Zimbabwe	0.0	27.8	0.0	10.3	87.7	60.6	14.3	15.3		
Algeria	24.9	46.9	100.0	31.9	74.4	92.5	25.0	16.7		
Egyp	t 17.0	56.5	99.9	21.6	86.4	99.1	10.8	23.9		
Libya	46.6	55.3	99.9	49.2	81.1		86.8	78.5		
Morocco) 12.9	46.7	100.0	23.0	79.9	97.8	12.7	14.2		
Tunicia	24.1	56 7	100.0	23.2	85.0	98.2	13.6	28.4		

OF INDEX SCORES AND CATEGORY CALCULATIONS (2007)

d) Environmental Sensitivity

Phone Subscribers	Internet Usage	EPI	Wealth Creation Sub-Score	Financial Integrity Sub-Score	Arteries of Commerce Sub-Score	Environmental Sensitivity Sub-Score	SEO 2007	Alternate SEO with epi 2007
24.0	7.4	1.1	54.1	68.0	10.1	1.1	44.1	33.3
20.0	4.6	43.6	25.3	70.4	6.7	43.6	34.1	36.5
56.8	13.7	75.9	48.7	71.1	31.6	75.9	50.5	56.8
9.8	1.9	13.5	24.3	71.6	3.7	13.5	33.2	28.3
3.1	1.8	40.0	21.2	71.4	1.6	40.0	31.4	33.6
21.1	7.6	63.4	26.6	73.6	8.8	63.4	36.3	43.1
38.0	21.6		32.1	74.0	23.4	52.4	43.2	45.5
2.4	1.0	43.5	25.3	65.9	1.4	43.5	30.9	34.0
3.8	2.2	17.5	20.7	55.0	1.5	17.5	25.7	23.7
7.4	8.9		18.6	67.2	7.1	52.4	31.0	36.3
14.0	7.2	78.5	22.1	70.4	6.5	78.5	33.0	44.4
8.8	0.9	21.2	26.2	54.5	3.3	21.2	28.0	26.3
18.3	5.8	67.0	23.7	66.8	8.1	67.0	32.9	41.4
5.6	3.5	29.4	27.4	74.4	10.0	29.4	37.2	35.3
14.6	4.0		84.4	65.6	9.0	52.4	53.0	52.8
2.1	6.5	52.3	19.7	65.8	3.2	52.3	29.6	35.3
2.2	0.9	50.7	33.4	74.1	1.1	50.7	36.2	39.8
70.1	15.0	97.9	51.3	71.1	30.0	97.9	50.8	62.6
43.8	16.2		27.8	73.1	16.4	52.4	39.1	42.4
29.1	10.0	81.3	28.9	68.9	12.4	81.3	36.7	47.9
17.7	2.0	31.4	22.1	65.9	6.8	31.4	31.6	31.6
16.2	5.7	27.3	21.5	34.5	7.2	27.3	21.1	22.6
25.6	20.7	76.8	29.1	73.8	12.9	76.8	38.6	48.1
17.0	9.0		29.3	73.3	9.1	52.4	37.2	41.0
13.0	1.4		28.8	63.5	5.2	52.4	32.5	37.5
10.5	1.7	39.8	27.1	73.0	3.9	39.8	34.7	35.9
7.0	2.5	53.4	29.2	71.0	4.1	53.4	34.8	39.4
17.5	2.1	13.5	22.5	69.6	6.1	13.5	32.8	27.9
38.6	3.7	13.2	23.4	70.9	14.3	13.2	36.2	30.5
84.6	69.7	100.0	45.0	79.6	54.9	100.0	59.8	69.9
12.8	2.3	38.1	29.4	74.5	6.8	38.1	36.9	37.2
37.4	12.6	80.9	35.1	71.2	23.1	80.9	43.1	52.6
2.2	1.0	0.0	22.0	68.3	1.6	0.0	30.6	23.0
23.7	17.6	43.8	29.0	76.0	11.6	43.8	38.9	40.1
5.8	5.5	40.5	26.5	75.3	3.5	40.5	35.1	36.5
19.9	38.0		29.1	81.2	21.0	52.4	43.8	45.9
27.3	17.9	60.9	26.4	67.9	13.1	60.9	35.8	42.1
100.0	100.0		55.6	75.0	90.6	52.4	73.8	68.4
1.6	0.6	2.5	28.7	74.4	1.1	2.5	34.7	26.7
6.6	2.9				3.2	52.4	3.2	27.8
79.4	21.0	76.7	42.5	78.4	47.5	76.7	56.1	61.3
17.6	22.5	42.2	34.7	68.9	10.9	42.2	38.2	39.2
21.5	10.7	57.1	32.6	74.4	13.1	57.1	40.0	44.3
17.1	2.5	63.6	29.0	73.1	5.7	63.6	36.0	42.9
17.0	14.1	59.6	21.4	68.0	8.9	59.6	32.8	39.5
11.8	9.5	57.7	28.5	72.0	6.9	57.7	35.8	41.3
18.5	12.7	41.2	28.6	75.0	15.6	41.2	39.7	40.1
10.5	28.3	77.4	13.9	39.6	17.1	77.4	23.5	37.0
75.4	26.9	97.2	35.9	74.7	36.0	97.2	48.9	60.9
43.2	34.3	95.4	36.8	76.8	28.0	95.4	47.2	59.2
40.1	12.3		50.9	76.7	54.4	52.4	60.7	58.6
59.9	55.1	84.6	29.8	75.2	35.5	84.6	46.8	56.3
75.5	44.5	100.0	40.4	76.6	40.5	100.0	52.5	64.4

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

Category:Sustainable Economic OpportunitySub-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 the World Bank's International Comparison Program database as reported in the World Development Indicators (WDI) 2009.¹ PPP figures allow for comparison of economic output and welfare across countries, controlling for differences in price levels.²

A country's GDP per capita in any given year is obviously influenced by a number of factors, over many of 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 2007, the poorest countries in terms of GDP per capita based on PPP were Zimbabwe (estimated \$155), the Democratic Republic of the Congo (\$282), Burundi (\$322), and Liberia (\$342).⁴ Countries with the highest GDP per capita based on PPP were Equatorial Guinea (\$28,923), the Seychelles (\$15,482), and Gabon (\$14,323)—reflecting in two cases the effect of national resource endowments on income. On average, however, North African countries were significantly wealthier according to this measure than sub-Saharan African countries. The regional average for Africa in 2007 was \$3,609, while the average in sub-Saharan Africa was about \$400 less per year (\$3,208).

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. Source: World Bank, International Comparison Program database.⁵

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 (the earliest year available) 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. Because no data on Zimbabwe's GDP per capita (PPP) are available from the WDI, the Index uses estimates from the Economist Intelligence Unit (EIU).⁶ Because a different source is used for Zimbabwe than for other countries, figures for Zimbabwe are listed in italics in the Index. It should be noted that, for other countries, EIU figures

¹ Last accessed 22 July 2009. The Index is based on WDI figures current as of this date.

² The first, 2007 edition of the Ibrahim Index used GDP per capita expressed in 2000 U.S. dollars, also from the WDI. The Index began employing PPP figures in 2008, using newly released data from the International Comparison Program.

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 For details on the estimates for Zimbabwe, see the technical notes.

⁵ Last accessed 5 May 2009.

⁶ From EIU Data Services (last accessed 6 May 2009). Estimates are calculated using EIU estimates for population and for real GDP (PPP US\$ at 2005 prices). The EIU does not include estimates for Somalia.

are generally similar to those from the WDI, but not equivalent.

Several other sources provide PPP estimates for Zimbabwe, which are useful for comparison. In the 2008 Ibrahim Index of African Governance, we based our estimates on the 2005 figure for Zimbabwe given in the 2005 International *Comparison Program: Preliminary Results* document, which reported \$538 GDP per capita based on PPP \$ for 2005. Rough estimates for other years were calculated using growth rates per capita from the WDI, which are described in the next indicator in this category.⁷ We changed the method of estimation for the 2009 Index because real figures for Zimbabwe's growth were unavailable for 2006 and 2007 in the WDI, thus providing an even weaker basis for our estimates. In addition, comparison of our estimates with other, newly available data, suggested that our estimates should be adjusted downward. Similar adjustments can be seen in other sources. For instance, 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* (7 August 2008) (drawing on new PPP rates) estimated \$200 in 2007, and the 2009 *Factbook* (23 April 2009) estimated GDP per capita (PPP) at \$200 in 2006, 2007, and 2008.

⁷ 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.

GDP PER CAPITA BASED ON PURCHASING POWER PARITY (CONSTANT 2005 INTERNATIONAL DOLLARS)

World Development Indicators (WDI) 2009

					SCAL	ED DA	TA:					
]	RAW DATA:								Scaled Overall 0-100			
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007
Angola	2633.5	3728.7	4297.6	5085.3	15	13	13	10	8.6	12.4	14.4	17.1
Benin	1178.2	1213.0	1220.4	1239.0	26	28	29	30	3.6	3.7	3.7	3.8
Botswana	9782.6	12087.6	12350.1	12847.5	5	5	5	5	33.5	41.5	42.4	44.1
Burkina Faso	896.3	1026.2	1050.6	1061.4	33	35	35	35	2.6	3.0	3.1	3.2
Burundi	338.0	319.4	322.8	321.7	50	49	50	50	0.6	0.6	0.6	0.6
Cameroon	1831.9	1958.8	1979.7	2009.4	17	17	17	17	5.8	6.3	6.3	6.4
Cape Verde	2340.2	2537.5	2745.4	2871.3	16	16	16	16	7.6	8.3	9.0	9.4
Central African Republic	733.6	644.2	658.4	673.7	40	43	44	44	2.0	1.7	1.7	1.8
Chad	877.8	1468.0	1425.0	1394.9	34	24	25	27	2.5	4.6	4.4	4.3
Comoros	1092.5	1127.3	1116.9	1079.6	28	31	32	33	3.3	3.4	3.3	3.2
Congo (Brazzaville)	3021.0	3309.4	3440.0	3315.7	13	15	15	15	10.0	11.0	11.4	11.0
Congo, Democratic Rep.	254.8	267.5	272.3	281.8	51	51	51	51	0.3	0.4	0.4	0.4
Cote d'Ivoire	1761.0	1615.5	1598.2	1595.7	18	22	22	22	5.6	5.1	5.0	5.0
Diibouti	1761.0	1849.8	1904.7	1946.4	19	18	18	19	5.6	5.9	6.1	6.2
Equatorial Guinea	10264.5	28536.2	26322.1	28922.5	4	1	1	1	35.1	98.7	91.0	100.0
Equatorial Gainea	681.4	630.1	602.0	591.1	42	44	46	47	1.8	1.7	1.6	1.5
Ethiopia	525.5	628.4	678.7	735.6	46	45	43	42	1.3	1.6	1.8	2.0
Gabon	13845.2	13821.3	13769.8	14322.9	2	3	3	3	47.6	47.5	47.3	49.2
Gambia	1023.4	1078.2	1117.1	1157.1	30	33	31	31	3.0	3.2	3.3	3.5
Ghana	1014.8	1160.0	1208.9	1260.2	31	30	30	29	3.0	3.5	3.7	3.8
Guinea	1011.5	1081.2	1083.1	1076.2	32	32	34	34	3.0	3.2	3.2	3.2
Guinea-Bissau	544.9	457.7	452.2	450.9	45	48	48	48	1.4	1.1	1.0	1.0
Kenya	1287.0	1349.2	1398.1	1456.5	24	26	26	25	3.9	4.2	4.3	4.5
Lesotho	1195.9	1311.3	1395.2	1455.6	25	27	27	26	3.6	4.0	4.3	4.5
Liberia	442.6	312.8	324.2	341.8	48	50	49	49	1.0	0.5	0.6	0.6
Madagascar	857.7	833.4	851.7	880.6	36	38	38	38	2.4	2.4	2.4	2.5
Malawi	704.6	647.8	683.1	718 5	41	42	42	43	1.9	17	1.8	2.0
Mali	856.8	1003.8	1025.5	1022.9	37	36	36	36	2.4	2.9	3.0	3.0
Mauritania	1596.6	1684.4	1831 7	1820.2	20	20	10	21	5.0	5.3	5.8	5.8
Mouritius	8530.3	0075.2	10254.0	10667.0	6	6	6	6	20.1	34.1	35.1	36.5
Mozambiquo	506.3	677.3	710.7	757.8	47	41	41	40	1.2	1.8	2.0	2 1
Nozamorque	2016.2	4500.7	4671.0	101.0	12	10	11	10	12.1	15.4	15.7	16.4
Inaliliola	5910.5	4099.7	4071.0	4000.1	12	47	47	12	1.4	1.5	15.7	1.5
Nigeria	1450 E	1720.7	1705.0	1950 5	44	47	47	40	1.4	1.5	1.5 E 7	T.5
Rwanda	640.0	771.0	704.2	010.0	21	19	21	20	4.5	5.5	5.7	5.9
Sao Tome and Principe	640.0	111.9	194.2	010.2	43	39	39	39	1.7	2.1	2.2	2.3
Sao Tome and Emergel	1144.0	1416.5	1486.7	1547.1	27	25	24	24	3.4	4.4	4.0	4.8
Sevehelles	1403.0	1047.0	1543.2	1572.9	22	23	23	23	4.5	4.0	4.0	4.9
Sierra Leone	15636.0	14107.3	14030.0	15401.7	1	2	2	2	54.5	40.0	50.5	55.5
Somalia	380.8	585.0	610.9	640.9	49	46	45	45	0.8	1.5	1.0	1.7
South Africa	7400.4	0.407.0	0050.0	0011.0	-	7	7	-	05.5	00.0	20.0	04.5
South Allica	7480.1	8487.6	8850.8	9214.6	/	7	/	/	25.5	29.0	30.2	31.5
Suuali	1386.9	1679.0	1828.5	1970.1	23	21	20	18	4.3	5.3	5.8	6.3
Swaznand	4166.3	4309.4	4401.0	4522.4	11	12	12	13	13.9	14.4	14.8	15.2
Tanzania	864.1	1048.8	1091.6	1141.0	35	34	33	32	2.5	3.1	3.3	3.4
logo	769.4	741.5	749.8	/44.3	39	40	40	41	2.1	2.0	2.1	2.0
Uganda	774.6	893.5	958.3	999.9	38	37	37	37	2.2	2.6	2.8	2.9
Zambia	1029.5	1183.4	1233.4	1282.9	29	29	28	28	3.0	3.6	3.7	3.9
Zimbabwe	240.3	173.8	164.5	155.2	52	52	52	52	0.3	0.1	0.0	0.0
Algeria	6086.9	7176.0	7196.4	7309.5	8	8	8	8	20.6	24.4	24.5	24.9
Egypt	4210.8	4574.0	4800.5	5051.6	10	11	10	11	14.1	15.4	16.1	17.0
Libya	11869.6	12559.5	12949.1	13565.0	3	4	4	4	40.7	43.1	44.5	46.6
Morocco	2980.5	3588.6	3822.2	3879.7	14	14	14	14	9.8	11.9	12.7	12.9
Tunisia	5444.4	6444.8	6743.0	7101.8	9	9	9	9	18.4	21.9	22.9	24.1

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) 2009 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 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 2007, the highest GDP per capita growth was in Angola (18.33 percent), followed by Equatorial Guinea (9.88 percent) and Ethiopia (8.39 percent). On average, countries in Africa grew per capita at about 3.0 percent in 2007, up from 0.7 percent in 2000 and 2.9 percent in 2006. (Growth rates in sub-Saharan Africa were slightly lower at 2.9 percent in 2007, up from 0.6 percent in 2000.) Although most African countries experienced modest, positive growth rates in 2007, negative growth rates were seen in a handful of countries: the worst rates were in Zimbabwe (an estimated –5.67 percent), followed by Congo (Brazzaville) (–3.61). Equatorial Guinea, which had the worst growth rates in 2006 (–7.76 percent), dramatically increased its performance in this area in 2007.

Technical Notes

The WDI notes on this indicator are as follows:

Annual percentage growth rate of GDP per capita based on constant local currency. GDP per capita is gross domestic product divided by midyear population. 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.

This source does not include figures for Somalia, for São Tomé and Príncipe prior to 2002, or for Zimbabwe after 2005. Given the rapidly changing economic situation in Zimbabwe and the poor quality of available data, estimates are problematic; nevertheless, it is important to include an estimate for Zimbabwe in order to have a full sense of performance in the region. We thus estimate Zimbabwe's growth rates for all Index years using EIU figures, which are complete for all of the years covered in the Index.² Because a different source is used for Zimbabwe than for other countries, figures for Zimbabwe are listed in italics in the Index. As illustrated below, they are also similar to available WDI estimates, except for 2005, when the EIU estimates a sharper economic downturn.

¹ Last accessed 22 July 2009. The Index is based on all WDI figures that were current as of this date.

² Last accessed 6 May 2009.

Year	World Bank/ WDI estimates	EIU estimates as of 6 May 2009 ³
2000	-8.87	-8.92
2001	-3.54	-3.54
2002	-5.08	-5.07
2003	-10.97	-10.95
2004	-4.42	-4.46
2005	-5.98	-7.14
2006	_	-5.37
2007	_	-5.67
2008	_	-12.80

¹⁹⁰

³ EIU figures from 2003 and on are estimates.

GDP PER CAPITA GROWTH (ANNUAL PERCENT)

World Development Indicators (WDI), based on World Bank and OECD National Accounts Data Files

					SCALI	ED DA	TA:					
F	RAW D	DATA:			Rankee	1			Scaled	Overal	10-100	
Angolo	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007
Aligoia	0.41	17.17	15.26	18.33	30	1	1	1	43.8	87.9	82.9	91.0
Dellill	2.61	-0.33	0.61	1.52	15	47	41	36	49.6	41.9	44.3	46.7
Botswana	6.50	3.66	2.17	4.03	4	16	32	23	59.9	52.4	48.5	53.3
Burkina Faso	-1.20	3.10	2.38	1.03	37	23	29	39	39.6	50.9	49.0	45.4
Burundi	-2.78	-2.86	1.08	-0.34	43	51	39	44	35.4	35.2	45.6	41.8
Cameroon	1.77	0.08	1.07	1.50	19	45	40	38	47.4	42.9	45.5	46.7
Cape Verde	4.14	4.08	8.19	4.59	8	11	4	13	53.6	53.5	64.3	54.8
Central African Republic	0.32	0.74	2.21	2.31	32	42	30	32	43.6	44.7	48.6	48.8
Chad	-4.34	4.37	-2.93	-2.11	46	8	49	49	31.3	54.2	35.0	37.2
Comoros	-1.21	2.05	-0.92	-3.33	38	35	46	50	39.5	48.1	40.3	34.0
Congo (Brazzaville)	4.82	5.30	3.95	-3.61	6	4	19	51	55.4	56.7	53.1	33.2
Congo, Democratic Rep.	-9.05	3.16	1.79	3.49	50	22	35	28	18.9	51.1	47.4	51.9
Cote d'Ivoire	-5.79	-0.43	-1.07	-0.15	48	48	47	41	27.5	41.6	39.9	42.3
Djibouti	-2.38	1.39	2.97	2.19	42	38	26	33	36.5	46.4	50.5	48.5
Equatorial Guinea	10.82	4.40	-7.76	9.88	2	7	52	2	71.2	54.3	22.3	68.7
Eritrea	-16.23	-1.35	-4.46	-1.81	51	49	50	48	0.0	39.2	31.0	38.0
Ethiopia	2.87	8.90	8.01	8.39	13	2	5	3	50.3	66.2	63.8	64.8
Gabon	-3.86	1.38	-0.37	4.02	44	39	45	24	32.6	46.4	41.8	53.3
Gambia	1.98	2.10	3.60	3.58	18	33	23	26	47.9	48.3	52.2	52.2
Ghana	1.34	3.65	4.21	4.25	23	17	17	17	46.2	52.4	53.8	53.9
Guinea	-0.06	1.38	0.18	-0.64	34	40	43	46	42.6	46.4	43.2	41.0
Guinea-Bissau	4.46	0.39	-1.21	-0.28	7	44	48	43	54.5	43.8	39.6	42.0
Kenya	-1.97	3.05	3.62	4.18	41	24	22	19	37.6	50.8	52.3	53.7
Lesotho	0.67	2.09	6.40	4.32	27	34	8	16	44.5	48.2	59.6	54.1
Liberia	18.95	2.45	3.67	5.42	1	32	21	6	92.6	49.2	52.4	57.0
Madagascar	1.73	1.75	2.19	3.39	20	37	31	29	47.3	47.3	48.5	51.7
Malawi	-1.36	-0.02	5.45	5.19	39	46	10	10	39.2	42.7	57.1	56.4
Mali	0.33	2.92	2.16	-0.25	31	28	33	42	43.6	50.4	48.4	42.1
Mauritania	-1.06	2.57	8.74	-0.63	36	31	3	45	39.9	49.5	65.8	41.1
Mauritius	3.01	3.74	2.80	4.04	12	14	28	22	50.7	52.6	50.1	53.4
Mozambique	-1.41	5.99	6.27	5.29	40	3	9	8	39.0	58.5	59.2	56.7
Namihia	1.36	3.37	1.55	4.22	22	20	36	18	46.3	51.6	46.8	53.8
Niger	-4.89	3.72	1.55	-0.13	47	15	37	40	29.9	52.5	46.8	42.4
Nigeria	2.67	2.90	3.73	3.58	14	29	20	27	49.8	50.4	52.6	52.1
Rwanda	1.27	4 99	2.88	3.03	25	5	27	30	46.1	55.9	50.3	50.7
Sao Tome and Principe		3.94	4 95	4.06	20	12		21		53.1	55.8	53.4
Senegal	0.52	2.95	-0.25	1.03	29	27	44	34	44.1	50.5	42.1	47.8
Sevchelles	3 33	0.72	3.18	5.76	11	43	24	5	51.5	44.6	51.1	57.9
Sierra Leone	0.64	3.48	4.42	4.02	28	10	14	11	44.4	51.0	54.4	55.7
Somalia	0.04	3.40	4.42	4.92	20	19	14		44.4	51.9	04.4	55.7
South A frica	1.61	2.70	4.00	4 44	24	10	15	20	47.0	F0 7	54.0	F2 6
Sudan	1.01	3.70	4.20	4.11	21	13	15	20	47.0	52.7	54.0	00.4
Suual	5.95	4.15	8.91	1.74	5	10	2	4	58.4	53.7	66.2	53.1
Swazilaliu	7.39	1.20	2.12	2.76	3	41	34	31	62.2	45.9	48.3	50.0
Tanzania	2.56	4.66	4.08	4.52	16	6	18	14	49.5	55.0	53.5	54.6
logo	-4.13	-1.52	1.11	-0.74	45	50	38	47	31.9	38.7	45.7	40.8
Uganda	2.49	2.95	7.26	4.33	17	26	6	15	49.3	50.5	61.8	54.1
Zambia	1.33	3.29	4.22	4.01	24	21	16	25	46.2	51.4	53.8	53.3
Zimbabwe	-8.92	-7.14	-5.37	-5.67	49	52	51	52	19.2	23.9	28.6	27.8
Algeria	0.74	3.54	0.28	1.57	26	18	42	35	44.7	52.0	43.5	46.9
Egypt	3.45	2.61	4.95	5.23	10	30	12	9	51.8	49.6	55.8	56.5
Libya	-0.89	4.17	3.10	4.76	35	9	25	12	40.4	53.7	50.9	55.3
Morocco	0.23	1.94	6.51	1.50	33	36	7	37	43.3	47.8	59.9	46.7
Tunisia	3.52	2.98	4.63	5.32	9	25	13	7	52.0	50.6	54.9	56.7

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 (IMF)'s World Economic Outlook Database (April 2009).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 scaled score for this indicator using the absolute value of the annual percentage change in consumer prices.

In 2007, the worst inflation by far was in Zimbabwe (over 10,000 percent), followed by Guinea (34.7 percent) and São Tomé and Príncipe (18.5 percent). Negative inflation rates were experienced in Chad (–7.4 percent) and Burkina Faso (–0.2 percent). The lowest changes in consumer prices were measured in Niger (0.1 percent). Excluding Zimbabwe, average inflation in the region was about 7 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* also contains data on consumer price inflation.

Technical Notes

Data are unavailable for Somalia.

¹ Last accessed 6 May 2009. Figures are averages for the year, not end-of-period. The Index is based on all figures from this source, current as of this date. Note that this source periodically adjusts its figures, so the figures used by the Index in this year may differ slightly from those in previous Index years.

INFLATION

IMF World Economic Outlook (April 2009 edition)

					SCAL	ED D	ATA:					
	RAW	DATA	1:		Ranke	ed			Scaled Overall 0-100			
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007
Angola	325.0	23.0	13.3	12.2	51	51	46	47	96.9	99.8	99.9	99.9
Benin	4.2	5.4	3.8	1.3	22	23	17	6	100.0	99.9	100.0	100.0
Botswana	8.5	8.6	11.6	7.1	38	35	42	27	99.9	99.9	99.9	99.9
Burkina Faso	-0.1	6.4	2.4	-0.2	1	26	10	2	100.0	99.9	100.0	100.0
Burundi	24.3	13.4	2.8	8.3	46	42	13	36	99.8	99.9	100.0	99.9
Cameroon	0.8	2.0	4.9	1.1	8	7	24	5	100.0	100.0	100.0	100.0
Cape Verde	-2.4	0.4	4.8	4.4	15	1	23	14	100.0	100.0	100.0	100.0
Central African Republic	3.2	2.9	6.7	0.9	19	11	30	3	100.0	100.0	99.9	100.0
Chad	3.8	3.7	7.7	-7.4	20	17	34	30	100.0	100.0	99.9	99.9
Comoros	5.9	3.0	3.4	4.5	29	13	15	15	99.9	100.0	100.0	100.0
Congo (Brazzaville)	0.4	2.5	4.7	2.6	4	10	21	10	100.0	100.0	100.0	100.0
Congo, Democratic Rep.	550.0	21.4	13.2	16.7	52	50	44	49	94.7	99.8	99.9	99.8
Cote d'Ivoire	-0.4	3.9	2.5	1.9	3	18	11	8	100.0	100.0	100.0	100.0
Diibouti	1.6	3.1	3.5	5.0	11	14	16	17	100.0	100.0	100.0	100.0
Equatorial Guinea	4.8	5.7	4.5	2.8	25	25	19	11	100.0	99.9	100.0	100.0
Equatorial Suinea	19.9	12.5	15.1	9.3	45	41	49	39	99.8	99.9	99.9	99.9
Ethiopia	6.2	6.8	12.3	15.8	31	30	43	48	99.9	99.9	99.9	99.8
Gabon	0.5	1.2	-1.4	5.0	5	4	3	18	100.0	100.0	100.0	100.0
Gambia	0.9	5.0	2.1	5.4	9	22	7	20	100.0	100.0	100.0	99.9
Ghana	25.2	15.1	10.2	10.7	47	43	40	43	99.8	99.9	99.9	99.9
Guinea	4.6	17.5	31.4	34.7	24	46	51	51	100.0	99.8	99.7	99.7
Guinea-Bissau	8.6	5.6	-0.1	4.6	39	24	2	16	99.9	99.9	100.0	100.0
Kenya	10.0	10.3	14.5	9.8	41	38	48	40	99.9	99.9	99.9	99.9
Lesotho	6.1	3.4	6.1	8.0	30	16	27	33	99.9	100.0	99.9	99.9
Liberia	5.3	6.9	7.2	11.4	26	31	32	45	100.0	99.9	99.9	99.9
Madagascar	10.7	18.4	10.8	10.4	42	49	41	41	99.9	99.8	99.9	99.9
Malawi	29.6	15.5	13.9	7.9	49	44	47	31	99.7	99.9	99.9	99.9
Mali	-0.7	6.4	1.5	1.5	6	27	5	7	100.0	99.9	100.0	100.0
Mauritania	6.8	12.1	6.2	7.3	34	40	28	29	99.9	99.9	99.9	99.9
Mauritius	4.2	4.9	8.9	9.1	23	21	37	38	100.0	100.0	99.9	99.9
Mozambique	12.7	6.4	13.2	8.2	44	28	45	34	99.9	99.9	99.9	99.9
Namibia	9.3	23	5.1	6.7	40	9	25	24	99.9	100.0	100.0	99.9
Niger	2.9	7.8	0.1	0.1	18	32	1	1	100.0	99.9	100.0	100.0
Nigeria	6.0	17.0	0.1	5.5	25	47	25	21	00.0	00.9	00.0	00.0
Rwanda	2.0	0.0	0.5	0.1	21	47	35	21	100.0	99.0	00.0	00.0
Sao Tome and Principe	11.0	17.2	22.1	19.5	42	45	50	50	00.0	00.9	00.9	00.9
Senegal	0.7	17.2	23.1	5.0	43	45	0	30	100.0	100.0	100.0	00.0
Sevehelles	6.2	0.6	1.0	5.9	22	2	6	10	00.0	100.0	100.0	99.9
Sierra Leone	0.0	12.1	-1.9	11 7	10	2	20	19	100.0	00.0	00.0	00.0
Somalia	-0.9	12.1	9.5	11.7	10	39	28	40	100.0	99.9	99.9	99.9
South Africa	E A	2.4	47	7.4	07	15	22	20	00.0	100.0	100.0	00.0
South Africa	5.4	3.4	4.7	7.1	27	15	22	28	99.9	100.0	100.0	99.9
Suuali	8.0	8.5	7.2	8.0	37	34	31	32	99.9	99.9	99.9	99.9
Swaziialiu	7.2	4.8	5.3	8.2	36	20	26	34	99.9	100.0	99.9	99.9
Tanzania	6.2	4.4	7.3	7.0	32	19	33	26	99.9	100.0	99.9	99.9
logo	1.9	6.8	2.2	1.0	12	29	9	4	100.0	99.9	100.0	100.0
	5.8	8.0	6.6	6.8	28	33	29	25	99.9	99.9	99.9	99.9
Zambia	26.1	18.3	9.0	10.7	48	48	38	42	99.8	99.8	99.9	99.9
Zimbabwe	55.6	237.8	1016.7	10452.6	50	52	52	52	99.5	97.7	90.3	0.0
Algeria	0.3	1.6	2.5	3.6	2	5	12	13	100.0	100.0	100.0	100.0
Egypt	2.8	8.8	4.2	11.0	16	36	18	44	100.0	99.9	100.0	99.9
Libya	-2.9	2.9	1.4	6.2	17	12	4	23	100.0	100.0	100.0	99.9
Morocco	1.9	1.0	3.3	2.0	13	3	14	9	100.0	100.0	100.0	100.0
Tunisia	2.3	2.0	4.5	3.1	14	8	20	12	100.0	100.0	100.0	100.0

Category:Sustainable Economic OpportunitySub-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). The 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 2007, the highest surpluses in the region were in São Tomé and Príncipe (124.9 percent), followed by Libya (40.2 percent) and Sierra Leone (23.7 percent). The highest deficits were in Zimbabwe (–24.6 percent), Eritrea (–18.1 percent), and Guinea-Bissau (–17.3 percent). Significant year-to-year changes were not uncommon for this indicator: São Tomé and Príncipe, for instance, had among the highest deficits in 2006 (–12.6 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 the Economist Intelligence Unit's 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 African Development Bank, "General Notes," in Selected Statistics (2008), xiii.

GOVERNMENT SURPLUS/DEFICITS

African Development Bank, Selected Statistics on African Countries 2008

					SCAL	ED D	ATA:					
]	RAW I	DATA:			Ranked	1			Scaled Overall 0-100			
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007
Angola	-7.8	8.5	10.9	10.0	44	8	11	7	20.3	30.1	31.6	31.0
Benin	-1.8	-2.9	-0.4	-2.0	19	32	23	30	23.9	23.3	24.8	23.8
Botswana	5.4	0.9	8.1	7.1	6	12	14	10	28.3	25.6	29.9	29.3
Burkina Faso	-4.3	-4.9	-5.2	-6.0	33	43	41	48	22.4	22.1	21.9	21.4
Burundi	-1.8	-5.1	-1.7	0.7	19	45	28	21	23.9	22.0	24.0	25.5
Cameroon	4.4	3.6	5.0	4.5	7	10	16	12	27.7	27.2	28.0	27.7
Cape Verde	-7.8	-4.0	-4.6	-2.3	44	39	39	33	20.3	22.6	22.3	23.6
Central African Republic	-1.8	-4.5	7.1	2.5	19	40	15	13	23.9	22.3	29.3	26.5
Chad	-6.8	-1.1	2.0	0.8	40	20	18	19	20.9	24.4	26.2	25.5
Comoros	-1.9	0.1	-2.6	-2.0	23	16	33	30	23.9	25.1	23.5	23.8
Congo (Brazzaville)	1.1	15.6	17.2	15.1	8	4	8	5	25.7	34.4	35.4	34.1
Congo, Democratic Rep.	-6.0	-3.1	-0.7	2.2	37	35	25	14	21.4	23.2	24.6	26.4
Cote d'Ivoire	-1.3	-1.7	-1.4	0.3	15	23	26	22	24.2	24.0	24.2	25.2
Djibouti	-1.8	0.2	-2.4	-1.6	19	15	31	27	23.9	25.2	23.6	24.1
Equatorial Guinea	8.6	21.2	26.2	22.8	4	3	6	4	30.2	37.8	40.8	38.7
Eritrea	-41.7	-17.8	-17.0	-18.1	52	52	52	51	0.0	14.3	14.8	14.2
Ethiopia	-9.3	-4.7	-5.0	-3.1	47	41	40	37	19.4	22.2	22.0	23.2
Gabon	11.7	8.6	9.2	9.6	2	7	12	8	32.1	30.2	30.6	30.8
Gambia	-1.4	-8.6	-6.3	1.8	16	49	45	16	24.2	19.9	21.2	26.1
Ghana	-7.9	-2.9	-7.0	-8.2	46	32	46	49	20.3	23.3	20.8	20.1
Guinea	-3.2	-1.5	-2.1	1.0	28	21	29	18	23.1	24.1	23.8	25.6
Guinea-Bissau	-6.9	-11.9	-9.8	-17.3	41	51	50	50	20.9	17.9	19.1	14.6
Kenya	0.8	0.1	-3.3	-1.7	9	16	37	28	25.5	25.1	23.0	24.0
Lesotho	-5.3	4.8	13.4	7.7	35	9	9	9	21.8	27.9	33.1	29.7
Liberia	0.3	0.8	4.2	1.5	12	13	17	17	25.2	25.5	27.6	25.9
Madagascar	-2.8	-4.7	37.7	-3.5	26	41	3	40	23.3	22.2	47.7	22.9
Malawi	-7.2	-1.7	-0.2	-1.5	43	23	21	26	20.7	24.0	24.9	24.1
Mali	-3.0	-3.1	31.3	-1.0	27	35	5	25	23.2	23.2	43.8	24.4
Mauritania	-6.0	-7.1	35.7	-2.8	37	48	4	35	21.4	20.8	46.5	23.3
Mauritius	-3.3	-5.0	-5.3	-4.3	29	44	43	42	23.0	22.0	21.8	22.4
Mozambique	-6.0	-2.4	-1.4	-5.1	37	27	26	44	21.4	23.6	24.2	22.0
Namibia	-3.5	-3.6	-0.2	1.9	30	38	21	15	22.9	22.9	24.9	26.2
Niger	-3.8	-2.1	41.6	-0.8	31	26	1	24	22.7	23.8	50.0	24.5
Nigeria	6.0	10.7	8.4	5.6	5	6	13	11	28.6	31.5	30.1	28.4
Rwanda	0.7	0.7	-0.5	-0.4	10	14	24	23	25.5	25.5	24.7	24.8
Sao Tome and Principe	-27.3	26.1	-12.6	124.9	51	2	51	1	8.6	40.7	17.5	100.0
Senegal	0.5	-3.2	-6.1	-5.5	11	37	44	45	25.3	23.1	21.4	21.7
Seychelles	-13.9	2.3	-7.1	-5.8	49	11	47	47	16.7	26.4	20.8	21.5
Sierra Leone	-9.3	-2.7	-2.7	23.7	47	31	34	3	19.4	23.4	23.4	39.3
Somalia												
South Africa	-2.0	-0.3	0.3	0.8	24	18	20	19	23.8	24.8	25.2	25.5
Sudan	-0.7	-1.8	-4.2	-3.8	14	25	38	41	24.6	23.9	22.5	22.7
Swaziland	-1.5	-1.6	0.5	-2.0	18	22	19	30	24.1	24.1	25.3	23.8
Tanzania	-1.4	-3.0	-5.2	-4.5	16	34	41	43	24.2	23.2	21.9	22.3
logo	-5.0	-2.4	-2.8	-2.5	34	27	35	34	22.0	23.6	23.3	23.5
Uganda	-7.1	-0.7	-2.4	-2.8	42	19	31	35	20.8	24.6	23.6	23.3
Zambia	-0.5	-2.6	18.6	-1.8	13	29	7	29	24.7	23.5	36.2	23.9
Zimbabwe	-18.6	-6.0	-7.3	-24.6	50	47	48	52	13.9	21.4	20.6	10.3
Algeria	9.7	13.6	12.9	11.4	3	5	10	6	30.9	33.2	32.8	31.9
Egypt	-3.9	-9.4	-9.2	-5.7	32	50	49	46	22.7	19.4	19.5	21.6
Libya	13.8	33.7	39.2	40.2	1	1	2	2	33.3	45.3	48.6	49.2
Morocco	-5.5	-5.6	-2.2	-3.4	36	46	30	39	21.7	21.7	23.7	23.0
Tunisia	-2.4	-2.6	-2.8	-3.1	25	29	35	37	23.6	23.5	23.3	23.2

Category:Sustainable Economic OpportunitySub-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 Olson, "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 (April 2009 release).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 doing so 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 2007, estimated CIM values in Africa (not including Somalia), ranged from a low of 0.37 (Guinea-Bissau) to a high of 0.97 (Botswana and Namibia), with an average across countries of 0.78.² Following Guinea-Bissau, countries with the lowest CIM values include Chad, the Central African Republic, and the Comoros.³ In addition to Botswana and Namibia, countries with the highest CIM values include South Africa, Swaziland, Mauritius, and Lesotho.

Technical Notes

Figures are unavailable for Somalia. Figures for Ethiopia and Ghana are unavailable for 2007; 2006 figures are given as estimates. Figures for Guinea and Rwanda are unavailable for 2006 and 2007; 2005 figures are given as estimates. Figures for Mauritania are unavailable after 2003; the 2003 figure is given as an estimate for 2005, 2006, and 2007. Available data suggest possible gradual improvement from the late 1990s until 2003: Mauritania's CIM was 0.78 in 1997, 0.79 in both 1998 and 1999, 0.81 in 2000, 0.83 in 2001, 0.85 in 2002, and 0.86 in 2003. Figures for 2000 are unavailable for the DRC; the 2001 figure is given for 2000 (the 1999 figure is unavailable).

¹ Last accessed 13 May 2009. The Index uses IFS figures that are current as of this date.

² The average is the same for sub-Saharan Africa alone.

³ The Central African Republic's CIM rises significantly from 0.34 in 2006 to 0.50 in 2007. Data suggest a sharp decline in currency held outside banks between 2006 and 2007.

RELIABILITY OF FINANCIAL INSTITUTIONS (CONTRACT INTENSIVE MONEY)

Our Estimates, Using Data from IMF, International Financial Statistics, based on Clague et al. 1999

					SCAL	ED DA	ATA:					
	RAW	DATA	:		Rankee	1			Scaled	Overal	10-100	
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007
Angola	0.82	0.85	0.88	0.90	17	15	9	9	80.1	84.2	88.8	90.7
Benin	0.56	0.70	0.65	0.73	47	40	42	40	47.4	64.8	59.2	68.6
Botswana	0.94	0.96	0.97	0.97	3	2	1	1	96.2	98.2	99.7	100.0
Burkina Faso	0.65	0.72	0.77	0.73	39	37	29	36	58.7	68.4	74.4	69.8
Burundi	0.71	0.76	0.80	0.79	33	33	23	29	66.6	72.7	78.3	76.2
Cameroon	0.74	0.82	0.84	0.82	27	20	19	24	70.0	80.6	83.4	80.0
Cape Verde	0.84	0.89	0.91	0.91	15	8	8	8	83.8	90.2	92.1	92.3
Central African Republic	0.20	0.30	0.34	0.50	52	51	51	50	1.8	14.5	19.8	40.1
Chad	0.33	0.38	0.42	0.38	50	50	50	51	18.6	24.4	30.2	24.6
Comoros	0.65	0.66	0.61	0.60	40	43	45	49	58.6	59.7	53.8	52.2
Congo (Brazzaville)	0.63	0.55	0.59	0.67	42	49	47	44	56.4	46.0	51.8	61.0
Congo, Democratic Rep.	0.46	0.56	0.57	0.64	49	48	48	45	35.1	47.0	49.0	57.3
Cote d'Ivoire	0.62	0.64	0.64	0.63	43	44	43	46	55.5	57.4	58.3	56.7
Djibouti	0.82	0.86	0.86	0.87	16	11	16	14	81.3	86.3	85.7	86.9
Equatorial Guinea	0.68	0.79	0.79	0.82	36	26	27	22	63.2	77.3	76.3	80.7
Eritrea	0.85	0.83	0.85	0.84	14	18	17	20	84.1	82.2	84.2	83.2
Ethiopia	0.80	0.80	0.79	0.79	19	25	25	28	78.4	77.5	77.4	77.4
Gabon	0.78	0.76	0.78	0.78	24	32	28	30	75.5	73.6	75.1	76.1
Gambia	0.73	0.77	0.75	0.80	29	31	33	27	68.9	74.1	71.8	77.6
Ghana	0.66	0.71	0.75	0.75	38	38	35	35	59.7	67.1	71.1	71.1
Guinea	0.53	0.61	0.61	0.61	48	45	46	48	43.5	53.5	53.5	53.5
Guinea-Bissau	0.33	0.23	0.28	0.37	51	52	52	52	17.6	5.5	11.9	23.2
Kenya	0.87	0.88	0.88	0.88	10	9	10	10	87.3	88.3	88.5	87.8
Lesotho	0.92	0.92	0.91	0.92	6	7	7	6	93.2	93.1	92.4	93.0
Liberia	0.72	0.66	0.69	0.73	30	42	40	39	68.3	60.3	64.3	69.0
Madagascar	0.67	0.71	0.72	0.73	37	39	38	37	61.8	66.0	68.1	69.1
Malawi	0.78	0.78	0.75	0.76	22	29	32	33	75.9	75.4	72.2	73.0
Mali	0.64	0.59	0.61	0.68	41	46	44	43	57.6	51.4	54.4	62.5
Mauritania	0.81	0.86	0.86	0.86	18	12	13	17	78.8	86.0	86.0	86.0
Mauritius	0.93	0.94	0.94	0.94	4	4	5	5	94.7	95.7	95.5	96.0
Mozambique	0.86	0.86	0.86	0.86	11	14	15	16	86.3	85.2	85.9	86.0
Namihia	0.96	0.96	0.97	0.97	1	1	2	2	98.0	98.6	99.3	99.4
Niger	0.69	0.56	0.53	0.63	34	47	49	47	64.2	48.1	44.1	55.8
Nigeria	0.74	0.78	0.81	0.87	28	28	21	13	69.9	76.1	78.9	87.6
Rwanda	0.78	0.82	0.82	0.82	21	21	20	23	76.1	80.3	80.3	80.3
Sao Tome and Principe	0.78	0.83	0.88	0.86	25	17	11	18	75.2	82.3	87.8	85.5
Senegal	0.78	0.76	0.74	0.75	23	35	36	34	75.9	72.5	70.6	72.3
Sevchelles	0.92	0.93	0.92	0.91	7	5	6	7	93.1	95.1	93.7	92.4
Sierra Leone	0.59	0.68	0.69	0.71	45	41	41	42	51.6	62.9	63.7	67.0
Somalia												
South Africa	0.95	0.95	0.96	0.96	2	3	3	3	97.5	97 7	98.0	98.6
Sudan	0.59	0.73	0.70	0.71	- 46	36	39	41	51.4	68.8	65.4	67.1
Swaziland	0.00	0.93	0.94	0.95	5	6	4	4	94.5	94.7	96.2	97.6
Tanzania	0.72	0.79	0.80	0.81	31	27	24	26	67.8	76.9	78.1	79.8
Tanzania	0.72	0.80	0.74	0.73	44	24	37	38	54.1	77.0	70.1	69.0
Liopodo	0.76	0.77	0.76	0.77	26	30	31	32	73.0	74.4	72.5	74 1
Ugallua Zambia	0.88	0.86	0.87	0.88	20	13	12	12	88.5	85.5	87.2	87.7
ZaiilUla Zimbabwa	0.87	0.82	0.07	0.88	0	10	34	11	87.6	82.1	71.6	87.7
Algeria	0.69	0.03	0.76	0.77	35	34	30	31	64.0	72.1	73.5	74.4
Egynt	0.85	0.87	0.86	0.87	12	10	14	15	85.1	86.8	86.0	86.4
Libyo	0.05	0.80	0.00	0.82	32	22	26	21	67.2	78.0	76.0	81.1
Morocco	0.80	0.81	0.19	0.81	20	23	20	25	79.2	70.0	78.7	70.0
Tunisia	0.00	0.01	0.00	0.01	20	10	40	20	10.3	19.0	10.1	19.9
1 4111514	0.85	0.84	0.85	0.85	13	16	18	19	84.3	83.8	83.9	85.0

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 businesses operate is another component of Macroeconomic Stability and Financial Integrity. The Index of African Governance seeks to capture key aspects of "Business Environment" using data on the "number of days to start a business" from the World Bank's *Doing Business* reports for 2004 through 2008 (available at www.doingbusiness.org).¹ These figures represent the number of days it takes to complete the requisite procedures to launch, in the economy's largest city, a commercial or industrial business that has up to fifty employees and a 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.³

The methodology builds on 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 it is socially inefficient and can be tied to corruption.⁴

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 assessment of the country's rank on starting a business among all countries.

¹ Last accessed 7 May 2009. The Index is based on figures from this source that are current as of this date. Note that this source adjusts figures periodically in keeping with methodological changes, so the figures used by the Index in this year may differ slightly from those in previous years. For details on changes, see www.doingbusiness.org/MethodologySurveys/MethodologyNoteArchive.aspx (last accessed 7 May 2009).

² For details, see www.doingbusiness.org/MethodologySurveys/StartingBusiness.aspx (last accessed 7 May 2009).

³ From www.doingbusiness.org/MethodologySurveys/StartingBusiness.aspx (last accessed 7 May 2009).

⁴ Djankov et al. (2002)'s 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" (p.1). The method of scaling used in the Index of African Governance is consistent with the public choice theory view.

The most recent statistics in the Index show that it takes the fewest number of days to start a business in Mauritius and Madagascar (7 days) as compared with the rest of the region. The data suggest significant reforms in both of these countries; between 2006 and 2007, the number of days to start a business dropped from 46 to 7 days in Mauritius and from 21 to 7 days in Madagascar. At the other end of the spectrum are Guinea-Bissau (233 days), the Democratic Republic of the Congo (155 days) and São Tomé and Príncipe (144 days).

Technical Notes

Data in each *Doing Business* report refer to the previous year: for instance, data in *Doing Business* 2008 are for June 2007.⁵ Thus, the Index uses *Doing Business* 2008 figures for 2007, *Doing Business* 2007 figures for 2006, and so on (unless otherwise noted).

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

No data are available for Somalia and Libya. *Doing Business* 2004, 2005, and 2006 also 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 and 2005 are based on *Doing Business* 2007. For these countries, figures from *Doing Business* 2007 are given as estimates for 2000, 2002, and 2005.

Doing Business 2004 and 2005 contain no estimates for Eritrea, Mauritius, São Tomé and Príncipe, and the Sudan. For these countries, figures from Doing Business 2006 are given as estimates for 2000 and 2002.

Estimates for Liberia are only available in *Doing Business* 2008. The Index uses this figure as a rough estimate for 2000, 2002, 2005, 2006, and 2007.

⁵ See World Bank, "Data Notes," in *Doing Business* 2007 (Washington, D.C., 2008), 67–81, available at www.doingbusiness.org/documents/fullreport/2008/DB08_Data_Notes.pdf (last accessed 7 May 2009).

BUSINESS ENVIRONMENT (NUMBER OF DAYS TO START A BUSINESS)

World Bank's Doing Business Surveys

	SCAI	ED D	ATA:											
]	RAW DATA:					Ranked					Scaled Overall 0-100			
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007		
Angola	119	119	119	119	46	46	47	47	50.4	50.4	50.4	50.4		
Benin	32	31	31	31	9	10	15	18	88.9	89.4	89.4	89.4		
Botswana	108	108	108	108	45	45	45	46	55.3	55.3	55.3	55.3		
Burkina Faso	40	40	34	18	20	23	16	9	85.4	85.4	88.1	95.1		
Burundi	43	43	43	43	23	26	26	32	84.1	84.1	84.1	84.1		
Cameroon	44	44	44	37	25	28	28	23	83.6	83.6	83.6	86.7		
Cape Verde	52	52	52	52	29	31	31	34	80.1	80.1	80.1	80.1		
Central African Republic	14	14	14	14	2	3	3	6	96.9	96.9	96.9	96.9		
Chad	75	75	75	75	37	37	38	41	69.9	69.9	69.9	69.9		
Comoros	23	23	23	23	4	6	8	10	92.9	92.9	92.9	92.9		
Congo (Brazzaville)	37	37	37	37	14	17	19	23	86.7	86.7	86.7	86.7		
Congo, Democratic Rep.	188	155	155	155	50	50	50	50	19.9	34.5	34.5	34.5		
Cote d'Ivoire	62	45	45	40	35	29	29	29	75.7	83.2	83.2	85.4		
Diibouti	37	37	37	37	14	17	19	23	86.7	86.7	86.7	86.7		
Equatorial Guinea	136	136	136	136	47	47	48	48	42.9	42.9	42.9	42.9		
Equatorial Gainea	84	84	84	84	39	40	41	42	65.9	65.9	65.9	65.9		
Ethiopia	44	32	16	16	25	12	4	7	83.6	88.9	96.0	96.0		
Gabon	58	58	58	58	31	34	34	36	77.4	77.4	77.4	77.4		
Gambia	27	27	27	32	7	9	12	20	91.2	91.2	91.2	88.9		
Ghana	85	81	81	42	40	38	39	31	65.5	67.3	67.3	84.5		
Guinea	41	41	41	41	21	24	24	30	85.0	85.0	85.0	85.0		
Guinea-Bissau	233	233	233	233	51	51	51	51	0.0	0.0	0.0	0.0		
Kenva	60	54	54	44	33	33	33	33	76.5	79.2	79.2	83.6		
Lesotho	92	92	73	73	42	41	37	40	62.4	62.4	70.8	70.8		
Liberia	99	99	99	99	44	44	44	44	59.3	59.3	59.3	59.3		
Madagascar	67	38	21	7	36	20	7	1	73.5	86.3	93.8	100.0		
Malawi	12	27	27	27	22	17	10	22	0/ 1	96.7	96.7	96.7		
Mali	43	42	42	26	23	25	19	12	04.1	94.5	00.7	01.6		
Mauritania	42	42	42	20	22	20	20	20	04.5	66.0	66.0	74.0		
Mauritina	02	02	02	7	30	39	40	39	00.0	00.0	00.0	100.0		
Mauritius	40	40	40	7	28	30	30	1	82.7	82.7	82.7	100.0		
Mozambique	153	153	113	29	49	49	40	16	35.4	35.4	53.1	90.3		
Namibia	85	95	95	99	40	42	42	44	65.5	61.1	61.1	59.3		
Niger	35	35	24	23	11	14	9	10	87.6	87.6	92.5	92.9		
Nigeria	44	43	43	34	25	26	26	22	83.6	84.1	84.1	88.1		
Kwallua Sao Tomo and Drinaina	18	18	16	16	3	4	4	7	95.1	95.1	96.0	96.0		
Sao Tome and Emerge	144	144	144	144	48	48	49	49	39.4	39.4	39.4	39.4		
Sellegal	58	58	58	58	31	34	34	36	77.4	77.4	77.4	77.4		
Seychelles	38	38	38	38	17	20	22	27	86.3	86.3	86.3	86.3		
Siella Leolle	26	26	26	26	6	8	11	13	91.6	91.6	91.6	91.6		
Somana														
South Africa	38	35	35	31	17	14	17	18	86.3	87.6	87.6	89.4		
Sudan	39	39	39	39	19	22	23	28	85.8	85.8	85.8	85.8		
Swaziland	61	61	61	61	34	36	36	38	76.1	76.1	76.1	76.1		
Tanzania	31	31	30	29	8	10	14	16	89.4	89.4	89.8	90.3		
Togo	53	53	53	53	30	32	32	35	79.6	79.6	79.6	79.6		
Uganda	34	34	28	28	10	13	13	15	88.1	88.1	90.7	90.7		
Zambia	35	35	35	33	11	14	17	21	87.6	87.6	87.6	88.5		
Zimbabwe	96	96	96	96	43	43	43	43	60.6	60.6	60.6	60.6		
Algeria	24	24	24	24	5	7	9	12	92.5	92.5	92.5	92.5		
Egypt	37	22	19	9	14	5	6	3	86.7	93.4	94.7	99.1		
Libya														
Morocco	36	12	12	12	13	2	2	5	87.2	97.8	97.8	97.8		
Tunisia	11	11	11	11	1	1	1	4	98.2	98.2	98.2	98.2		

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 a 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. They also provide an indication of a government's care for and provision of a nation's infrastructural needs. Those interested in more detailed assessments 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 *World Road Statistics* 2008 (*Data 2001 to 2006*) (Geneva, 2008). The *IRF World Road Statistics 2007 (Data 2000 to 2005)* and *IRF World Road Statistics 2005 (Data 1999 to 2003)* were also consulted. Other international sources include the World Bank's *African Development Indicators*; the U.S. Central Intelligence Agency (CIA)'s *The World Factbook*; the African Development Bank and OECD's *African Economic Outlook*; 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 (per capita) are in Libya, the Seychelles, Botswana, Namibia, and Algeria.

Length of Road Network by Country

Annual estimates on roads are unavailable for most sub-Saharan African countries. The table below lists the best available figures for each country from both international and local sources covering the years 2000 to the present.² Figures highlighted in bold are those used in this Index. When figures from different sources conflict, we have judged which figures are most reliable, and generally use either the IRF's *World Road Statistics* 2008, which is the most up-to-date standard international source, or data provided to us directly by official local sources. We have assumed that kilometers of paved roads should not decline dramatically year to year, unless we have a specific reason to believe otherwise.

When estimates are available for multiple years, the closest year's value is used as an estimate for each Index year. (In the data table for this indicator, estimates and approximate values are given in italics.) The source of each estimate is noted in the table below. (A semicolon is used to indicate figures drawn from different sources.) All figures are rounded to the nearest whole kilometer.

We obtained local estimates from more countries than are included here; only data judged sufficiently reliable are reported here. For instance, local authorities sometimes report only figures for classified roads, rather than for all roads. If we suspect that this is the case, we do not report those local figures here.

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).

² Earlier figures are given in a few cases.

In the 2007 Ibrahim Index of African Governance, we focused on total kilometers of roads, rather than kilometers of paved roads. We changed our indicator in the 2008 Ibrahim Index for two reasons. First, after closer examination of the data, we decided that paved roads better capture the extent to which infrastructure has been maintained. While unpaved roads can be used for transport, it *is* 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, with occasionally large variations year to year or across sources in reported kilometers of total roads (e.g., see Madagascar below).

In-country research in sub-Saharan Africa focused on obtaining estimates for the two most recent years, 2005 and 2006 in the 2008 round of research, and 2007 and 2008 in the 2009 round of research.

	IRF World Road Statistics 2005, 2007, and 2008		Country Research			
Country	Estimate(s) of Total Kilometers of Roads (Year of Estimate in Parentheses)	Estimate(s) of Kilometers of Paved Roads ³	Estimate(s) of Total Kilometers of Roads	Estimate(s) of Kilometers of Paved Roads	Source(s)	
Algeria	104,000 (1999), 108,302 (2004)	71,656 (1999), 76,028 (2004)				
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 2005 ⁴	
Benin	6,787 (1999), 19,000 (2004)	1,357 (1999), 1,805 (2004)	13,306 (2005)		Ministry of Public Works and Transport ⁵	
Botswana	10,217 (1999), 24,102 (2002), 25,233 (2003), 24,455 (2004), 25,798 (2005)	? (2000), 8,508 (2002), 8,867 (2003), 8,119 (2004), 8,410 (2005)	24,455 (2004); 25,798 (2005)	8,119 (2004); 8,410 (2005)	Central Statistics Office; Central Transport Organization ⁶	
Burkina Faso	12,506 (1999), 92,495 (2004)	2,001 (1999), 3,857 (2004)	15,214 (2004); 15,272 (2007); 15, 272 (2008)	2,545 (2004); 2,690 (2007); 2,975 (2008) ⁷	Direction Général des Routes; Institut National de la Statistique et de la Démographie (INSD); Direction Générale des Routes ⁸	
Burundi	14,480 (2000), 12,322 (2004)	1,028 (2000), 1,286 (2004)		6,181 (2007), 9,185 (2008) ⁹	Agence Burundaise pour la Réalisation des Travaux d'Intérêt Public ¹⁰	

Length of Road Network by Country

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

4 As cited in Nathan Associates, "Angola: Diagnostic Trade Integration Study" (August 2006), 27.

5 Additional information is needed to verify this figure, which appears to be inconsistent with the IRF's estimate for 2004.

6 Central Statistics Office, "Transport and Communications Statistics: 2005," *Stats Brief* (March 2007) and information obtained from Lesego Tswiio, Administration Officer, Central Transport Organization, March 2009.

7 These figures differ significantly from the IRF figure for 2004 and appear to be more consistent with IRF's 1999 figure. More information is needed.

8 Direction Général des Routes/Ministère des Infrastructures, des Transports et de l'Habitat, "Répertoire général du réseau routier national" (March 2004); INSD, "Tableau 15.05 : Réseau routier classé de 2007 par région selon le type de routes (en km)," available at www.insd.bf/pages_web/donnee_stat/structurelle/tableaux/T1506.htm (last accessed 7 August 2009); information obtained from Chef de Service, Direction Générale des Routes/Ministère des Infrastructures et du Désenclavement (11 February 2009).

9 Figures appear inconsistent with IRF figures and are thus not used in the Index. More information is needed.

Cameroon	50,000 (2000), 51,346 (2004)	4,050 (2000), 4,298 (2004)	50,000 (2007), 50,000 (2008)	4,120 (2005), 4,478 (2006), 5,000 (2007), 5,100 (2008)	Ministry of Public Works ¹¹
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) ¹²	Central African Republic, Development Partner Consultation ¹³
Chad	33,400 (2000), 40,000 (2006)	267 (2000), 320 (2006) ¹⁴			
Comoros	880 (2000)	673 (2000)	821 (2007/08)	594 (2007/08) ¹⁵	Directeur National des infrastructures, de l'urbanisme et de l'habitat ¹⁶
Congo (Brazzaville)	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) ¹⁷	171,000 (ca. 2007)	2,250 (ca. 2007)	UN Consolidated Appeals Process ¹⁸
Côte d'Ivoire	50,4000 (2000), 80,000 (2004)	4,889 (2000), 6,496 (2004)		10,514 (2000) ¹⁹	Côte d'Ivoire, Document de Stratégie de Réduction de la Pauvreté, Janvier 2009 ²⁰
Djibouti	3,065 (2000)	1,379 (2000)	3,079 (2005), 3,086 (2006)	535 (2005), 542 (2006)	Ministère de l'Equipement et du Transport
Egypt	64,000 (2000), 92,370 (2004)	49,984 (2000), 74,820 (2004)			
Equatorial Guinea	2,880 (2000)	? (2000)		700 (ca. 2006)	Economist Intelligence Unit ²¹
Eritrea	4,010 (2000)	874 (2000)			

¹⁰ Information provided by Jean Martin Niyoyankunze, Chargé de Projet à l'Agence Burundaise pour la Réalisation des Travaux d'Intérêt Public (ABUTIP) (27 March 2009).

¹¹ Information provided by John Bita Tambe, Sub Director (9 January 2008) and Acha Valentine, sub-director in charge of programming, Department of Roads, Investment, and Maintenance (10 March 2009).

¹² This estimate is broadly consistent with other available figures. For instance, the World Bank's World Development Indicators (WDI) 2008 estimates 2.7 percent of roads were paved in 1998. This figure is also reported by the United Nations Conference on Trade and Development (UNCTAD), *Landlocked Developing Countries: Facts and Figures 2006* (New York, 2006), 18.

^{13 &}quot;Sector Note: Transport" (June 2007), 1, available at www.car-conference.net/documents (last accessed 4 August 2008).

¹⁴ Figure is a rough estimate based on the percentage of paved roads for 2000, drawn from *World Road Statistics* 2007. The percentage of paved roads in 2006 is not given.

¹⁵ Source lists 533.5 km of bituminized roads, 207.9 km of unpaved/dirt roads, and 60 km of urban roads. Figure above includes bituminized and urban roads. Figures are inconsistent with IRF figures and 2007 and 2008 figures are identical. More information is needed.

¹⁶ Information obtained from Hassani Bacar, Directeur National des infrastructures, de l'urbanisme et de l'habitat (14 March 2009).

¹⁷ The percentage of paved roads is unavailable for 2000; the 2000 estimate is based on the percentage given for 2004.

^{18 &}quot;Democratic Republic of the Congo: Humanitarian Action Plan 2007," 42

¹⁹ This figure is inconsistent with IRF figures; more information is needed.

²⁰ Page 73.

²¹ Equatorial Guinea–Country Profile (London, 2006), 15.

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); 42,429 (2007), 44,359 (2008)	3,824 (2000), 3,924 (2001), 4,053 (2002), 4,362 (2003), 4,635 (2004), 4,972 (2005), 5,002 (2006); 5,452 (2007), 6,066 (2008)	Ethiopian Roads Authority ²²
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)		at least 625 (2007) ²³	National Roads Authority ²⁴
Ghana	39,409 (2000), 46,179 (2001), 47,787 (2003), 54,311 (2004), 57,614 (2005)	11,665 (2000), 8,497 (2001), 8,563 (2003), 8,109 (2004), 8,602 (2005) ²⁵	59,218 (2005), 63,221 (2006)	10,421 (2005), 10,957 (2006)	Ministry of Transportation ²⁶
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 l'Entretien Routier and Direction Nationale des Transports Terrestres ²⁷
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)	Direcção Geral de Estradas e Pontes and Direcção Nacional de Transportes Terrestres ²⁸
Kenya	63,942 (2000), 63,265 (2004)	7,737 (2000), 8,933 (2004)	63,255 (2003), 63,572 (2004), 63,572 (2005), 63,572 (2006), 63,574 (2007)	8,928 (2003), 9,130 (2004), 9,130 (2005), 9,130 (2006), 9,273 (2007)	Ministry of Transport and Communications ²⁹
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 ³⁰

22 For 2001–2005: taken from SABA Engineering, "Table 1: Road Network Development and Road Density (1997–2006)," in Dukem-Abu Sera Road Project, Feasibility Study, prepared for Oromiya Rural Roads Authority (June 2007), 8. For 2007 and 2008: information provided to our researcher by the Planning and Program Department, Ethiopian Roads Authority (6 March 2009). See table, "Road Network Development in Ethiopia (1951–2008)" (on file).

- 23 Figure excludes Mandinaba Kalagi, Kalagi Soma and Barra Amdalai, which are under construction.
- 24 Information obtained from Mr. Njie, Director, National Roads Authority (13 March 2009).
- 25 The 2004 estimate is calculated using the 2005 percentage of paved roads. We do not include the 2000 figure in Index calculations because it appears to be inconsistent with the other estimates. More information is needed particularly on the inconsistency between local and IRF estimates for 2005.
- 26 "National Road Portfolio by Surface Type (2005–2006)" (mimeo). Other information provided to us by Francis D. Ahlidza, Engineer, Ministry of Roads (4 June 2009) suggests higher figures. Further information is needed.
- 27 As reported by the Direction Nationale de la Statistique, downloaded from www.statguinee.org/Donnees/structurelle/ Communication/transroutier.htm (last accessed 15 July 2009).
- 28 As reported by the Instituto Nacional de Estatística e Censos, downloaded from www.statguinebissau.com/dados/estructural/ Comunicacao/transp_estradas.htm (4 August 2008).
- As reported in Kenya National Bureau of Statistics, Statistical Abstract 2008 (Nairobi, 2008), 184 ("Roads Network, 2003-2007 By Type and Classification"). The 2006 edition of the Statistical Abstract contains earlier figures for 2001 and 2002, but figures for 2003–05 are not consistent with those in the 2008 report and thus are not given here. Figures for 2007 are provisional.
- 30 As provided to our researcher in 2008 by H. Lelosa, Transport Department. An additional source, Lesotho Review's An Overview of *the Kingdom of Lesotho's Economy* (Maseru, 2009), 37, reports 2,434 km of paved roads and 7,438 km total roads, according to our researcher. More information is needed about these conflicting figures. In the absence of better information, only the IRF figure for 2000 is used in the 2009 Index.

Liberia	10,600 (2000)	657 (2000)	9,917 (2007)	734 (2007)	Liberian President Ellen Johnson Sirleaf, annual address to the National Legislature, January 2008 ³¹
Libya	83,200 (2000)	47,590 (2000)			
Madagascar	49,827 (2000)	5,780 (2000)	11,746 (2005), 11,746 (2006)	5,366 (2005), 5,429 (2006) ³²	Roads Authority of Madagascar ³³
Malawi	28,400 (1999); 15,451 (2003)	5,254 (1999), 6,956 (2003) ³⁴	15,451 (2006/07), 15,451 (2007/08)	4,038 (2006/07), 4,194 (2007/08)	National Roads Authority ³⁵
Mali	15,100 (2000), 18,709 (2004)	1,827 (2000), 3,368 (2004)	12,298 (2005), 16,490 (2006)	3,367 (2002), 2,215 (2003), 3,307 (2004), 3,418 (2005), 3,667 (2006)	Direction Nationale des Transports ³⁶
Mauritania	7,660 (2000), 11,066 (2006)	866 (2000), 2 ,966 (2006)	7,991 (2000), 7,991 (2001), 8,376 (2002), 8,394 (2003), 8,621 (2004), 9,144 (2005), 11,066 (2006); 11,000 (2007)	903 (2000); 2,700 (2007) ³⁷	Direction des Travaux Publics et SNIM; Groupe Consultatif ³⁸
Mauritius	1,926 (2000), 2,000 (2001), 2,000 (2002), 2,015 (2003), 2,015 (2004), 2,021 (2006)	1,868 (2000), 1,960 (2001), 1,960 (2002), 2,015 (2003), 2,015 (2004), 2,021 (2006)	2,015 (2003), 2,020 (2004), 2,020 (2005), 2,021 (2006), 2,028 (2007)	1,975 (2003), 1,980 (2004), 1,980 (2005), 1,981 (2006), 1,987 (2007)	Central Statistics Office ³⁹
Могоссо	57,626 (2000), 57,679 (2001), 57,694 (2002), 57,734 (2003), 57,493 (2004), 57,626 (2005), 57,625 (2006)	32,513 (2000), 32,542 (2001), 32,551 (2002), 32,851 (2003), 32,714 (2004), 35,665 (2005), 35,664 (2006)			

³¹ As given in Sulaiman Momodu, "Road Rehabilitation Creates More Jobs," UNMIL FOCUS (December 2007–February 2008), 5. Our 2009 field researchers' source at the Ministry of Public Works (Assistant Minister for Operations) reported 5,360 km and 5,628 km of total roads in 2007 and 2008, and 278 km and 298 km of paved roads, respectively.

³² We use these figures (and not the IRF figure for 2000) because they are provided to us directly by an official government source.

³³ As provided by the General Secretary of the Madagascar Action Plan (MAP)/Presidency of the Republic of Madagascar.

³⁴ 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.

³⁵ National Roads Authority, "National Roads Authority Annual Report 1st July 2006 to 30th June 2007," 17. Figures for 2007–2008 were calculated based on various completion reports.

³⁶ As reported by Direction Nationale de la Statistique et de l'Information, downloaded from www.dnsi.gov.ml/donnees/donnes_ structurelles/Transports1.html (last accessed 15 July 2009). The 2003 figure is puzzling.

³⁷ Paved roads for 2000 are estimated using the percentage of paved roads from IRF.

³⁸ Figures for 2000-2006 are as reported in Office National des Statistiques (ONS), Annuaire Statistique 2006 (Nouakchott, 2007), 56. Figures for 2007/08 are from Groupe Consultatif, "Ministère des Transports: Politiques et Strategies," presentation prepared for "Réunion du 5^{ème} Groupe Consultatif pour la Mauritanie," Paris, 4–6 December 2007.

³⁹ Central Statistics Office, Ministry of Finance and Economic Development, Republic of Mauritius, Digest of Road Transport and Road Accident Statistics 2007 (Port Louis, 2008), 15.

Mozambique	30,400 (2000)	5,685 (2000)	29,323 (2007)	5,245 (2007)	Ministry of Transport and Communication ⁴⁰
Namibia	66,467 (2000), 42,237 (2002)	9,040 (2000), 5,406 (2002) ⁴¹	42,238 (2000/01), 42,238 (2001/02), 42,238 (2002/03), 42,238 (2003/04), 42,238 (2004/05), 42,261 (2005/06); 42,261 (2007), 42,100 (2008)	5,477 (00/01), 5,477 (01/02), 5,477 (02/03), 5,477 (03/04), 5,477 (04/05), 5,810 (2007), 6,199 (2008)	Roads Authority ⁴²
Niger	14,658 (2001), 14,657 (2002), 15,074 (2003), 18,387 (2004), 18,423 (2005), 18,550 (2006)	3,761 (2001), 3,761 (2002), 3,761 (2003), 3,760 (2004), 3,797 (2005), 3,803 (2006)	14,630 (2000), 14,658 (2001), 14,657 (2002), 15,074 (2003), 18,387 (2004), 18,423 (2005), 18,550 (2006); 18,949 (2007)	3,761 (2000), 3,761 (2001), 3,761 (2002), 3,761 (2003), 3,761 (2003), 3,761 (2004), 3,797 (2005), 3,797 (2006); 3,912 (2007)	Direction Générale des Travaux Publics; Ministère de l'équipement – Direction de la Statistique ⁴³
Nigeria	193,200 (2004)	28,980 (2004)	40,712 (2006)	28,145 (2006)	National Bureau of Statistics ⁴⁴
Rwanda	12,000 (2000), 14,008 (2004)	996 (2000), 2,662 (2004) ⁴⁵			
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 Infraestructuras ⁴⁶
Senegal	14,583 (2000), 13,576 (2003)	4,273 (2000), 3,972 (2003)	14,634 (2004)	4,559 (2004)	Ministère de l'Economie et des Finances and Agence Nationale de la Statistique et de la Démographie ⁴⁷
Seychelles	458 (2003)	440 (2003)	456 (2002), 458 (2003), 498 (2004), 498 (2005), 502 (2006), 508 (2007)	437 (2002), 440 (2003), 478 (2004), 478 (2005), 482 (2006). 490 (2007),	National Statistics Bureau ⁴⁸
Sierra Leone	11,300 (2000), 11,300 (2002)	893 (2000), 904 (2002)	11,555 (2005/06)	1,031 (05/06)	Sierra Leone Roads Administration ⁴⁹

⁴⁰ As reported in Instituto Nacional de Estatística, Statistical Yearbook 2007 (August 2008), 90.

⁴¹ Estimate for 2000 is based on 1999 figure of percentage of paved roads.

⁴² Annual Report (April 2004 to March 2005), 17, and personal communication for 2005/06 figure. Figures for 2007 and 2008 were provided by Richard Milinga, Principal: Road Transport Inspector, Road Authority (9 February 2009).

⁴³ From Institut National de la Statistique, "Réseau routier," available at www.stat-niger.org/ (last accessed 4 August 2008); Ministère de l'équipement – Direction de la Statistique, Réseau Routier du Niger en 2007 and Institut National de la Statisque, Annuaire Statistique 2007, as provided to our researcher by Directeur de la Statistique du Ministère de l'Équipement (25 March 2009).

⁴⁴ National Bureau of Statistics, Nigerian Statistical Facts Sheets on Economic and Social Development (Abuja, 2007), 22, as reported by our researcher.

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

⁴⁶ Provided by Nazare Tiny Rita (February 2008).

⁴⁷ Situation Economique et Sociale du Sénégal (edition 2005), 10, citing Mémento des Transports Terrestres (2004).

⁴⁸ Seychelles in Figures, 2007 Edition (Victoria, Mahé, June 2007), 17 (Table 8), and, 2006 Edition (Victoria, Mahé, July 2006), 18 (Table 8).

⁴⁹ Estimates from Sierra Leone Roads Administration's "Vision 2014" draft report, as provided by Alfred Jalil Momodu, Senior Engineer, SLRA (31 March 2008).

Somalia	22,100 (2000)	2,608 (2000)			
South Africa	362,099 (2000), 364,131 (2001)	73,506 (2000), 62,995 (2001) ⁵⁰	535,000 (ca. 2009)	65,894 (ca. 2009)	National Roads Agency ⁵¹
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) ⁵²	3,769 (ca. 2009)	1,130 (ca. 2009) ⁵³	Roads Department ⁵⁴
Tanzania	88,200 (2000), 78,891 (2003)	3,704 (2000), 6,808 (2003)	28,892 (2006); 78,891 (2007)	4,581 (2006); 6,808 (2007)	Ministry of Planning, Economy and Empowerment; Ministry of Infrastructure Development ⁵⁵
Togo	7,520 (2000)	2,376 (2000)		1,769 (2007/08)	Direction Générale de Travaux Publiques ⁵⁶
Tunisia	18,997 (2000), 18,997 (2001), 19,232 (2004)	12,994 (2000), 12,424 (2001), 12,655 (2004)			
Uganda	70,746 (2003)	16,272 (2003)			
Zambia	66,781 (2000), 91,440 (2001)	? (2000), 20,117 (2001)			
Zimbabwe	97,267 (2002)	18,480 (2002)	88,300 (ca. 2005); 85,208 (2007/08)	15,000 (2005); 17,420 (2007/08)	Zimbabwe National Road Administration; Zimbabwe National Road Authority ⁵⁷

- 52 Figures for 2000 and 2001 are estimated using the percentage of paved roads from 2002.
- 53 Estimated using percentage of paved roads from IRF for 2002.
- 54 Available at www.gov.sz/home.asp?pid=1231 (last accessed 7 August 2009).
- 55 Ministry of Planning, Economy, and Empowerment, *The Economic Survey* 2006 (June 2007), 163; information obtained from Ministry of Infrastructure Development (12 May 2009). Tanzania National Roads Agency (TANROADS) provided our 2009 researcher with another estimate of 28,892 kms of paved roads and 85,000 kms of total roads. We rely on the standard international sources only in this case because of the discrepancies in these estimates. Further information is needed.

⁵⁰ The 2000 estimate is not used because the 2001 estimate appears to be more consistent with information from the National Roads Agency.

⁵¹ South African National Roads Agency, "Statistics," available at www.nra.co.za/live/content.php?Category_ID=35 (last accessed 14 July 2009).

⁵⁶ As provided to our researcher by Mme. Ayewa, Directrice de l'Entretien Routier, Direction Générale de Travaux Publiques du Togo (18 March 2009).

⁵⁷ Figures for 2005 are 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). Figures for 2007/08 were provided by Frank Chitukutuku, Acting Chief Executive Officer, Zimbabwe National Road Authority (17 March 2009).

Estimates of paved kilometers per 1,000 people are provided in the data table for this indicator. Population estimates that are used are drawn from the World Bank's World Development Indicators (WDI) 2009 for the appropriate Index year.⁵⁸

Roads per Land Area

The 2007 Ibrahim 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 Ibrahim 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). (As in the data table for this indicator, the closest year's value is used as an estimate for each Index year. Estimates and approximate values are given in italics.) Estimates of land area are drawn from the World Bank's WDI 2009.⁵⁹

Kilometers of Paved Roads per Land Area								
(km per 100 sq. km)								
	2000 2002 2005 2006 200							
Algeria	3.01	3.19	3.19	3.19	3.19			
Angola	0.43	0.43	0.62	0.62	0.62			
Benin	1.23	1.63	1.63	1.63	1.63			
Botswana	1.50	1.50	1.48	1.48	1.48			
Burkina Faso	0.73	0.93	0.93	0.98	0.98			
Burundi	4.00	4.00	5.01	5.01	5.01			
Cameroon	0.87	0.87	0.89	0.96	1.07			
Cape Verde	23.13	23.13	25.48	25.48	25.48			
Central African Republic	0.11	0.11	0.11	0.11	0.11			
Chad	0.02	0.02	0.03	0.03	0.03			
Comoros	36.16	36.16	36.16	36.16	36.16			
Congo (Brazzaville)	0.36	0.36	0.25	0.25	0.25			
Congo, DR	0.13	0.13	0.12	0.10	0.10			
Côte d'Ivoire	1.54	1.54	2.04	2.04	2.04			
Djibouti	5.95	5.95	5.95	5.95	5.95			
Egypt	5.02	5.02	7.52	7.52	7.52			
Equatorial Guinea	2.50	2.50	2.50	2.50	2.50			
Eritrea	0.87	0.87	0.87	0.87	0.87			
Ethiopia	0.38	0.41	0.50	0.50	0.55			
Gabon	0.33	0.33	0.36	0.36	0.36			
Gambia	9.56	7.23	7.23	7.23	7.23			
Ghana	3.73	3.73	4.58	4.82	4.82			

⁵⁸ Last accessed 7 May 2009.

⁵⁹ Last accessed 15 July 2009.
Guinea	1.77	1.77	1.77	1.77	1.77
Guinea-Bissau	3.43	3.43	3.43	3.43	3.43
Kenya	1.36	1.57	1.60	1.60	1.63
Lesotho	3.58	3.58	4.50	4.45	4.45
Liberia	0.68	0.68	0.76	0.76	0.76
Libya	2.70	2.70	2.70	2.70	2.70
Madagascar	0.92	0.92	0.92	0.93	0.93
Malawi	5.58	7.39	7.39	7.39	7.39
Mali	0.28	0.28	0.28	0.30	0.30
Mauritania	0.09	0.09	0.29	0.29	0.29
Mauritius	92.02	96.55	97.54	97.59	97.88
Morocco	7.29	7.29	7.99	7.99	7.99
Mozambique	0.72	0.72	0.67	0.67	0.67
Namibia	0.67	0.67	0.67	0.71	0.71
Niger	0.30	0.30	0.30	0.30	0.31
Nigeria	3.18	3.18	3.18	3.18	3.18
Rwanda	4.04	4.04	10.79	10.79	10.79
São Tomé and Príncipe	22.71	22.71	31.35	31.35	31.35
Senegal	2.22	2.22	2.37	2.37	2.37
Seychelles	95.00	95.00	103.91	104.78	106.52
Sierra Leone	1.25	1.26	1.44	1.44	1.44
Somalia	0.42	0.42	0.42	0.42	0.42
South Africa	5.19	5.19	5.19	5.43	5.43
Sudan	0.18	0.18	0.18	0.18	0.18
Swaziland	5.42	6.27	6.27	6.57	6.57
Tanzania	0.77	0.77	0.77	0.77	0.77
Togo	4.37	4.37	4.37	4.37	4.37
Tunisia	8.36	8.00	8.15	8.15	8.15
Uganda	8.26	8.26	8.26	8.26	8.26
Zambia	2.71	2.71	2.71	2.71	2.71
Zimbabwe	4.78	4.78	3.88	3.88	4.50

Selections for Further Reading

- African Union and United Nations Economic Commission for Africa (UNECA), *Transport and the Millennium Development Goals in Africa*, sub-Saharan Africa Transport Policy Program (SSATP), (Washington, D.C., 2005), available at www.worldbank.org/afr/ssatp/transport_poverty/transport_mdg.pdf.
- Arnaud Demarchelier, "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 (IDJC), "Transport and ICT: Making Infrastructure Pro-Poor, Final Report," (2004), available at www.oecd.org/dataoecd/34/19/36568295.pdf.
- Organisation for Economic Co-operation and Development (OECD), "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 (Washington, D.C., 1999).

ROAD NETWORK (KILOMETERS OF PAVED ROADS PER 1,000 PEOPLE)

Index of African Governance Country Research and International Road Federation (and WDI 2009 for population figures)

					SCALED DATA:							
	RAW	DATA	\:		Ranke	d			Scaled Overall 0-100			
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007
Angola	0.38	0.48	0.47	0.46	30	25	27	27	4.0	5.1	5.0	4.8
Benin	0.19	0.21	0.21	0.20	45	42	41	41	1.8	2.1	2.0	1.9
Botswana	4.92	4.58	4.53	4.47	3	3	3	3	55.1	51.3	50.7	50.0
Burkina Faso	0.17	0.18	0.19	0.18	47	46	44	44	1.6	1.7	1.8	1.7
Burundi	0.15	0.16	0.16	0.15	48	49	49	49	1.4	1.5	1.4	1.4
Cameroon	0.26	0.23	0.25	0.27	38	40	39	37	2.5	2.3	2.4	2.7
Cape Verde	2.07	2.03	1.98	1.94	6	6	6	6	23.0	22.5	22.0	21.5
Central African Republic	0.18	0.17	0.16	0.16	46	48	48	48	1.7	1.6	1.5	1.5
Chad	0.03	0.03	0.03	0.03	53	53	53	53	0.0	0.0	0.0	0.0
Comoros	1.25	1.12	1.10	1.07	15	16	16	16	13.7	12.3	12.0	11.7
Congo (Brazzaville)	0.39	0.24	0.23	0.23	29	39	40	40	4.0	2.4	2.3	2.3
Congo, Democratic Rep.	0.06	0.05	0.04	0.04	52	52	52	52	0.3	0.2	0.1	0.1
Cote d'Ivoire	0.29	0.35	0.34	0.34	37	31	31	31	2.9	3.6	3.5	3.5
Djibouti	1.89	1.71	1.68	1.66	8	9	9	9	21.0	19.0	18.7	18.3
Equatorial Guinea	1.63	1.45	1.41	1.38	9	11	11	11	18.0	16.0	15.6	15.2
Eritrea	0.24	0.19	0.19	0.18	40	44	45	45	2.3	1.8	1.8	1.7
Ethiopia	0.06	0.07	0.06	0.07	51	51	51	51	0.3	0.4	0.4	0.4
Gabon	0.71	0.73	0.71	0.70	19	20	20	20	7.7	7.8	7.7	7.6
Gambia	0.69	0.45	0.43	0.42	21	28	28	28	7.5	4.7	4.6	4.4
Ghana	0.42	0.46	0.48	0.47	27	27	25	25	4.4	4.9	5.0	4.9
Guinea	0.53	0.48	0.47	0.46	24	26	26	26	5.6	5.1	5.0	4.9
Guinea-Bissau	0.70	0.60	0.59	0.57	20	22	22	22	7.6	6.5	6.3	6.1
Kenya	0.25	0.26	0.25	0.25	39	37	38	38	2.5	2.6	2.5	2.5
Lesotho	0.58	0.69	0.68	0.67	23	21	21	21	6.2	7.4	7.3	7.3
Liberia	0.21	0.21	0.21	0.20	42	41	42	42	2.1	2.1	2.0	1.9
Madagascar	0.33	0.29	0.28	0.28	35	35	34	34	3.4	2.9	2.9	2.8
Malawi	0.45	0.53	0.51	0.50	25	24	24	24	4.8	5.6	5.4	5.3
Mali	0.34	0.29	0.31	0.30	34	33	33	33	3.5	3.0	3.1	3.0
Mauritania	0.35	1.00	0.97	0.95	32	18	19	19	3.6	11.0	10.7	10.4
Mauritius	1.57	1.59	1.58	1.58	10	10	10	10	17.4	17.6	17.5	17.4
Mozambique	0.31	0.26	0.25	0.25	36	38	37	39	3.2	2.5	2.5	2.4
Namibia	2.91	2.71	2.84	2.79	4	4	4	4	32.5	30.2	31.7	31.1
Niger	0.34	0.29	0.28	0.28	33	36	36	35	3.5	2.9	2.8	2.8
Nigeria	0.23	0.21	0.20	0.20	41	43	43	43	2.3	2.0	1.9	1.9
Rwanda	0.12	0.29	0.28	0.27	50	34	35	36	1.0	2.9	2.8	2.8
Sao Tome and Principe	1.56	1.97	1.94	1.90	11	7	7	7	17.2	21.9	21.5	21.1
Senegal	0.41	0.39	0.38	0.37	28	29	29	29	4.3	4.0	3.9	3.8
Sevchelles	5.39	5.77	5.70	5.76	2	2	2	2	60.4	64.7	63.9	64.6
Sierra Leone	0.20	0.18	0.18	0.18	44	45	46	46	1.9	1.7	1.7	1.7
Somalia	0.37	0.32	0.31	0.30	31	32	32	32	3.8	3.3	3.2	3.0
South Africa	1.43	1.34	1.39	1.38	13	12	12	12	15.8	14.8	15.3	15.2
Sudan	0.13	0.12	0.11	0.11	49	50	50	50	1.1	1.0	1.0	0.9
Swaziland	0.89	0.95	0.99	0.98	17	19	18	18	9.7	10.4	10.8	10.8
Tanzania	0.20	0.18	0.17	0.17	43	47	47	47	19	17	1.6	16
Togo	0.44	0.38	0.37	0.36	26	30	30	30	4.6	4.0	3.8	3.7
10g0 Llaanda	0.66	0.56	0.54	0.53	20	23	23	23	7 1	6.0	5.8	5.6
Ugallua Zambia	1.92	1.75	1 72	1.69	.7	8	8	8	21.4	19.4	19.1	18.7
Zaniola	1.46	1 14	1 1 2	1 30	12	15	15	13	16.1	12.6	12.1	14.3
Algeria	2.35	2 31	2.28	2 25	5	5	5	5	26.1	25.7	25.4	25.0
Fount	0.75	1.03	1 01	0.99	18	17	17	17	20.7 8 1	11 0	11 0	10.8
Lgypt Libro	8 90	8.04	7.88	7 73	10	1	1	1	100.0	90.3	88.5	86.8
LIDYa	1 14	1 19	1 17	1 16	16	14	14	15	12.5	13.0	12.8	12 7
Tunicia	1 36	1.26	1.25	1 24	14	12	13	14	15.0	13.0	13.8	13.6
1 4111514	1.00	1.20	1.20	1.27	14	70	,0	14	10.0	10.0	10.0	10.0

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 thermal; hydroelectric; nuclear; and geothermal, solar, wind, wood, and waste sources. Data on installed capacity are drawn from the Energy Information Administration's *International Energy Annual 2006*, which was released June–December 2008.¹ Population figures are taken from the World Bank's World Development Indicators (WDI) 2009.² 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 2006) show the highest total installed capacity per capita in the Seychelles (1.12 kilowatts), followed by Libya (0.90 kw), South Africa (0.85 kw), and Mauritius (0.55 kw). By comparison, Gabon has slightly less installed capacity per capita than China (0.32 kw). At the other end of the spectrum are Chad, Burundi, and Rwanda, which each have under 0.01 kw of installed capacity per capita. Overall, and not adjusted by population, South Africa has the greatest installed capacity at 40.498 million kw, followed by Egypt at 20.467 million kw and distantly by Algeria (6.470 million), Nigeria (5.96 million), Libya (5.438 million), and Morocco (5.033 million). The Comoros, with some 5 thousand kw, has the lowest installed electricity capacity.

The 2007 Ibrahim Index of African Governance used a different measure of electricity provision, assessing the average number of days per year during which there were power outages or surges. Estimates were drawn from the World Bank's Enterprise Surveys. The Index team used a different indicator in 2008 and 2009 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 2006. The *International Energy Annual* 2006 notes that the data for this year are preliminary. In the absence of more recent figures, 2006 figures are used as estimates for 2007 in the 2009 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 more in-depth analysis of energy and electricity. Sources for such data include the OECD, the International Energy Agency, the Energy Information Administration, and the African Development Bank's *Selected Statistics on African Countries*. 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 an overview on energy issues in Africa, see "Africa's Energy Shortage: Africa's Power Supply Crisis: Unraveling the

¹ See www.eia.doe.gov/iea/elec.html (last accessed 4 August 2009). Note that these figures update previous figures and include several revised estimates for earlier years for a number of countries.

² Last accessed 22 July 2009.

Paradoxes," *IMF Survey online* (22 May 2008).³ An interesting study of capacity building is: Amelia Suckling, Mengistu Teferra, Stephen Karekezi, and J. Baguant, *Capacity Building for a Reforming African Power Sector* (London, 2003).

ELECTRICITY INSTALLED CAPACITY PER CAPITA (KILOWATTS)

Energy Information Administration's International Energy Annual 2006 (released Dec. 2008); Population Data from WDI 2009 (see notes also)

	R AW/	DATA			Ranked		17.		Scaled	Overall	0-100	
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007
Angola	0.04	0.05	0.05	0.05	2000	2005	2000	23	3.4	4.3	4.1	4.1
Benin	0.01	0.01	0.01	0.01	50	50	50	50	0.4	0.4	0.3	0.3
Botswana	0.08	0.07	0.07	0.07	18	17	17	17	6.4	6.0	6.0	6.0
Burkina Faso	0.01	0.02	0.02	0.02	46	39	39	39	0.6	1.1	1.2	1.2
Burundi	0.01	0.00	0.00	0.00	49	51	52	52	0.5	0.2	0.1	0.1
Cameroon	0.05	0.05	0.05	0.05	23	24	24	24	4.3	4.1	4.0	4.0
Cape Verde	0.09	0.15	0.15	0.15	17	11	11	11	7.9	13.2	12.7	12.7
Central African Republic	0.01	0.01	0.01	0.01	45	46	46	46	0.7	0.6	0.6	0.6
Chad	0.00	0.00	0.00	0.00	53	53	53	53	0.1	0.0	0.0	0.0
Comoros	0.01	0.01	0.01	0.01	48	47	47	47	0.6	0.5	0.5	0.5
Congo (Brazzaville)	0.04	0.03	0.03	0.03	28	30	30	30	3.1	2.7	2.6	2.6
Congo. Democratic Rep.	0.05	0.04	0.04	0.04	24	26	27	27	4.0	3.4	3.3	3.3
Cote d'Ivoire	0.05	0.06	0.06	0.06	22	20	20	20	4.5	4.9	4.8	4.8
Diibouti	0.12	0.15	0.14	0.14	15	13	13	13	9.9	12.6	12.4	12.4
Equatorial Cuinaa	0.01	0.03	0.03	0.03	40	34	34	34	1.0	2.1	2.1	21
Equatorial Guillea	0.02	0.03	0.03	0.03	37	31	31	31	12	27	2.6	2.6
Ethionia	0.01	0.01	0.01	0.01	51	43	43	43	0.4	0.7	0.7	0.7
Gabon	0.34	0.32	0.32	0.32	5	5	6	6	29.2	27.8	27.5	27.5
Gambia	0.02	0.02	0.02	0.02	33	38	38	38	1.6	1.4	13	13
Ghana	0.02	0.02	0.06	0.02	20	18	18	18	4.8	5.5	5.4	5.4
Guinea	0.00	0.07	0.03	0.00	20	32	32	32	1.8	2.4	2.4	2.4
Guinea-Bissau	0.02	0.03	0.03	0.01	38	11	JZ //1	JZ /1	1.0	0.9	0.0	0.0
Kenva	0.02	0.03	0.03	0.03	20	28	20	20	2.6	2.7	2.7	2.7
Lesotho	0.03	0.03	0.03	0.03	29	20	29	29	2.0	2.7	3.1	2.7
Liberia	0.04	0.04	0.04	0.04	16	27	20	20	0.2	4.5	3.1	3.1
Madagascar	0.11	0.05	0.05	0.05	10	42	42	42	9.2	4.5	4.4	4.4
Malawi	0.01	0.01	0.01	0.07	39	42	42	42	1.0	0.0	0.0	0.0
Mali	0.02	0.02	0.02	0.02	34	30	37	37	1.0	1.0	1.0	1.0
Mauritania	0.01	0.02	0.02	0.02	42	30	35	35	0.0	1.9	1.0	1.0
Mauritina	0.06	0.06	0.06	0.00	21	21	21	21	4.7	4.0	4.7	4.7
Magamhigua	0.45	0.53	0.55	0.55	4	4	4	4	11.2	45.0	47.0	47.0
Mozambique	0.13	0.11	0.11	0.11	13	10	15	15	11.2	9.7	9.7	9.7
Namibia	0.14	0.13	0.13	0.01	12	14	14	14	12.0	0.5	0.4	0.4
Nigeria	0.01	0.01	0.01	0.01	47	40	40	40	0.0	0.5	0.4	0.4
Rwanda	0.05	0.04	0.04	0.04	20	20	20	20	0.2	0.1	0.1	0.1
Sao Tome and Principe	0.00	0.00	0.00	0.00	10	10	10	10	0.2	4.0	4.0	0.1
Senegal	0.07	0.08	0.00	0.00	19	19	19	25	0.2	4.9	4.0	4.0
Sevehelles	1.09	1.15	1.12	1.12	1	29	20	20	2.0	100.0	08.0	08.0
Sierra Leone	0.01	0.01	0.01	0.01	41	45	45	1	0.0	0.7	98.0	90.0
Somalia	0.01	0.01	0.01	0.01	41	40	40	40	0.9	0.7	0.0	0.0
South A frica	0.01	0.01	0.01	0.07	44	49	45	49	79.0	75.0	74.5	74.5
Sudan	0.90	0.00	0.00	0.00	2	ა ეე	3	3	10.9	75.5	74.5	74.5
Swaziland	0.02	0.03	0.03	0.03	35	10	10	16	10.7	2.3	2.3	2.5
Tanzania	0.13	0.11	0.11	0.00	14	10	10	10	10.7	9.7	9.0	9.0
Tanzailla	0.02	0.02	0.02	0.02	32	40	40	40	1.0	0.0	1.0	0.0
Togo	0.02	0.01	0.01	0.01	30	40	40	40	0.7	0.9	0.9	0.9
Uganda Zambia	0.01	0.15	0.01	0.15	40	12	12	12	13.0	12.8	12.5	12 5
ZaiiiDia	0.10	0.15	0.10	0.19	10	12	12	0	10.9	14.4	12.0	12.0
Algeria	0.15	0.17	0.10	0.10	0	0	9	3	12.0	17.0	10.0	10.3
Egypt	0.20	0.20	0.19	0.19	0	7	7	7	22.2	22.0	22.0	22.0
Egypt	0.27	0.20	0.20	0.20	0	2	1	2	23.Z	22.9 75.5	23.9 70 F	23.9 70 E
Libya	0.00	0.67	0.90	0.90	- 3	2	10	10	75.0	14.5	14.0	10.5
Tunicia	0.14	0.17	0.17	0.22	11	9	10 E	5	12.4	14.5	20.4	14.2
i uiiisia	0.25	0.51	0.55	0.33	/	0	5	5	22.0	20.7	20.4	20.4

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 ITU's *World Telecommunication/ICT Indicators Database*.¹ The ITU's report, *African Telecommunication/ICT Indicators* 2008: At a Crossroads (Geneva, 2008), prepared for the ITU TELECOM Africa conference, Cairo, Egypt, 12–15 May 2008, was also consulted.

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 The ITU's 2009 *Manual for Measuring ICT Access and Use by Households and Individuals* discusses how countries can measure and monitor ICT development.³

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 the 2008 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 2007, there was at least one telephone for every inhabitant of the Seychelles (an estimated 119.93 per 100). The worst coverage in 2006 and 2007 was estimated in Sierra Leone. For 2006, the ITU found that about one person in fifty had a telephone. Across countries, there were, on average, about 31 telephones per 100 inhabitants in 2007 (or 27 in sub-Saharan Africa only), similar to Kenya (30.76).

Technical Notes

The ITU notes that "*Main (fixed) telephone lines* refer to telephone lines connecting a customer's equipment (e.g., telephone set, facsimile machine) to the Public Switched Telephone Network (PSTN) and which have a dedicated port on a telephone exchange. Note that for most countries, main lines also include public payphones. Many countries also include ISDN channels in main (fixed) lines (see below ISDN and ADSL). ... *Mobile cellular subscribers* refers to users of portable telephones subscribing to an automatic public mobile telephone service using cellular technology that provides access to the PSTN."⁴

Estimates were unavailable for Sierra Leone in 2007, and for Liberia in 2006. In the first case, the figure for 2006 is used as an estimate. In the second case, the average of the 2005 and 2007 figures is used as an estimate.

¹ The selected statistics used in the Index were available at www.itu.int/ITUD/ICTEYE/Indicators/Indicators.aspx (last accessed 30 July 2009). Note that ITU figures are updated periodically and sometimes differ notably between editions.

² Available at www.itu.int/ITU-D/ict/partnership/material/CoreICTIndicators.pdf (last accessed 30 July 2009).

³ Available at www.itu.int/ITU-D/ict/publications/hhmanual/2009/material/HHManual2009.pdf (last accessed 30 July 2009).

⁴ ITU, "World Telecommunication/ICT Indicators," (September 2008), available at www.itu.int/ITU-D/ICTEYE/Indicators/WTI_ Technotes.pdf (last accessed 30 July 2009), 4.

TELEPHONE SUBSCRIBERS PER 100 INHABITANTS (FIXED AND MOBILE)

International Telecommunication Union

					SCALED DATA:								
	RAW	DATA	\:		Ranke	d			Scaled	Scaled Overall 0-100			
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007	
Angola	0.64	10.28	18.45	28.80	44	26	22	18	0.5	8.5	15.3	24.0	
Benin	1.61	8.55	13.94	24.01	25	29	29	22	1.3	7.1	11.6	20.0	
Botswana	20.79	38.08	51.22	68.10	4	9	8	8	17.3	31.7	42.7	56.8	
Burkina Faso	0.67	5.27	7.84	11.77	43	38	38	40	0.5	4.4	6.5	9.8	
Burundi	0.56	2.50	3.00	3.81	45	48	46	48	0.4	2.0	2.5	3.1	
Cameroon	1.25	13.20	17.91	25.32	30	24	23	21	1.0	11.0	14.9	21.1	
Cape Verde	16.94	32.11	37.23	45.55	5	10	10	13	14.1	26.7	31.0	38.0	
Central African Republic	0.39	2.68	2.92	2.92	48	46	47	49	0.3	2.2	2.4	2.4	
Chad	0.19	2.23	4.64	4.64	52	49	45	47	0.1	1.8	3.8	3.8	
Comoros	1.23	5.27	8.87	8.87	31	38	36	42	1.0	4.4	7.4	7.4	
Congo (Brazzaville)	3.03	16.80	16.80	16.80	18	18	25	34	2.5	14.0	14.0	14.0	
Congo, Democratic Rep.	0.05	4.67	7.28	10.55	53	41	40	41	0.0	3.9	6.0	8.8	
Cote d'Ivoire	4.26	13.55	22.04	22.04	15	23	19	25	3.5	11.3	18.3	18.3	
Djibouti	1.36	6.81	6.81	6.81	27	36	42	46	1.1	5.6	5.6	5.6	
Equatorial Guinea	2.10	17.56	17.56	17.56	21	17	24	33	1.7	14.6	14.6	14.6	
Eritrea	0.84	1.75	2.15	2.55	34	51	51	52	0.7	1.4	1.8	2.1	
Ethiopia	0.38	1.37	2.08	2.66	49	52	52	50	0.3	1.1	1.7	2.2	
Gabon	12.89	56.66	66.96	84.08	7	5	6	6	10.7	47.2	55.8	70.1	
Gambia	2.99	19.10	28.69	52.56	19	15	14	9	2.5	15.9	23.9	43.8	
Ghana	1.75	14.58	24.84	34.89	23	20	17	15	1.4	12.1	20.7	29.1	
Guinea	0.79	2.70	2.70	21.32	37	45	49	26	0.6	2.2	2.2	17.7	
Guinea-Bissau	0.85	7.36	10.89	19.52	33	33	34	32	0.7	6.1	9.0	16.2	
Kenya	1.33	13.68	20.76	30.76	28	22	20	17	1.1	11.4	17.3	25.6	
Lesotho	2.32	14.92	20.41	20.41	20	19	21	31	1.9	12.4	17.0	17.0	
Liberia	0.29	0.30	7.94	15.58	50	53	37	35	0.2	0.2	6.6	13.0	
Madagascar	0.77	3.42	6.49	12.64	38	43	43	38	0.6	2.8	5.4	10.5	
Malawi	0.81	3.84	5.34	8.49	36	42	44	43	0.6	3.2	4.4	7.0	
Mali	0.47	7.08	13.17	21.04	46	35	30	28	0.4	5.9	10.9	17.5	
Mauritania	1.32	26.35	35.76	46.33	29	13	13	12	1.1	21.9	29.8	38.6	
Mauritius	38.57	81.00	89.52	101.47	2	2	3	2	32.1	67.5	74.6	84.6	
Mozambique	0.75	7.55	11.27	15.45	40	32	33	36	0.6	6.3	9.4	12.8	
Namihia	10.54	29.26	36.37	44.93	10	12	12	14	8.8	24.4	30.3	37.4	
Niger	0.20	2.65	2.65	2.65	51	47	50	51	0.1	2.2	2.2	2.2	
Nigeria	0.47	14.06	23.57	28.42	46	21	18	19	0.4	11.7	19.6	23.7	
Rwanda	0.71	2.74	2.74	6.96	42	44	48	45	0.6	2.2	2.2	5.8	
Sao Tome and Principe	3 29	12 49	16.77	23.95	17	25	26	23	27	10.4	13.9	19.9	
Senegal	4 61	17 70	28 19	32 79	14	16	15	16	3.8	14.7	23.5	27.3	
Sevchelles	57.42	97.07	109 70	119.93	1	1	1	1	47.9	80.9	91.5	100.0	
Sierra Leone	0.73	2 00	2 00	2.00	41	50	53	53	0.6	1.6	1.6	1.6	
Somalia	1.42	7 18	7.61	8.02	26	34	39	44	1.1	5.9	6.3	6.6	
South Africa	29.64	80.48	91.09	95.24	3	3	2	3	24.7	67.1	75.9	79.4	
Sudan	1 17	6.20	13 10	21.18	32	37	31	27	0.9	5.1	10.9	17.6	
Swaziland	6.01	20.90	25.86	25.86	13	14	16	20	5.0	17.4	21.5	21.5	
Tanzania	0.83	9.09	14 77	20.56	35	27	27	29	0.7	7.5	12.3	17.1	
Tanzania	1 77	8 20	12.86	20.00	22	30	32	30	1.4	6.0	10.7	17.0	
Landa	0.77	4 80	7 14	14.22	38	40	41	37	 0.6	4.0	59	11.8	
Ugallua Zambia	1.74	8 00	14 62	22.18	24	20	20	24	1.4	7.4	12.2	18.5	
ZaiilUla Zimbahwa	1.74	7.90	0.51	12.10	16	20	20	24	1.4	6.5	7.0	10.5	
Algeria	9.14	1.02	71.49	90.47	10	51	50	5	5.4	41.2	50.6	75.4	
Fount	0.00	31.14	36.95	51.78	14	11	11	10	0.1	25.0	30.7	/3.9	
Egypt	9.75	31.14	49.40	49.16	0		0	11	ð.1	20.9	30.7	40.4	
Libya	12.00	40.10	40.10	40.10	8	- /	9	7	10.0	40.1	40.1	40.1	
MOTOCCO	13.07	40.04	55.98	/ 1.01	0	ð	1	1	10.9	37.5	40./	59.9 75.5	
i unista	11.37	70.24	80.32	90.54	9	4	4	4	9.4	58.6	72.0	75.5	

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 second 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 2009 release of the ITU's *World Telecommunication/ICT Indicators Database*.¹ The ITU's report, *African Telecommunication/ICT Indicators 2008: At a Crossroads* (Geneva, 2008), prepared for the ITU TELECOM Africa conference, Cairo, Egypt, 12–15 May 2008, was also consulted.

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 are incomplete for many of 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 2007, estimated internet usage per 100 inhabitants ranged from a high of 38.4 in the Seychelles to a low of 0.24 in Sierra Leone. Ethiopia, the Central African Republic, and the Democratic Republic of the Congo were also estimated at the bottom. Across countries, average estimated internet usage was 5.5 per 100 inhabitants (4.6 in sub-Saharan Africa alone), or roughly equivalent to usage in Togo (5.4). Not surprisingly, average usage increased steadily on the continent from 2000 to 2007.

Technical Notes

Figures on internet users are based on nationally reported data, and the method of estimation may differ across countries. In some countries, surveys have been carried out. The ITU notes that those countries that have not carried out surveys "generally base their estimates on derivations from reported Internet Service Provider subscriber counts, calculated by multiplying the number of subscribers by a multiplier."³

¹ The selected statistics used in the Index are available at www.itu.int/ITUD/ICTEYE/Indicators/Indicators.aspx (last accessed 30 July 2009). Note that ITU figures are updated periodically and sometimes differ notably between editions.

² Available at www.itu.int/ITU-D/ict/partnership/material/CoreICTIndicators.pdf (last accessed 30 July 2009). See also ITU, "Definition of World Telecommunication/ICT Indicators – Final Version (April 2007)," available at www.itu.int/ITU-D/ict/handbook.html (last accessed 30 July 2009); ITU, Manual for Measuring ICT Access and Use by Households and Individuals (Geneva, 2009).

³ ITU, "World Telecommunication/ICT Indicators," (September 2008), available at www.itu.int/ITU-D/ICTEYE/Indicators/WTI_ Technotes.pdf (last accessed 30 July 2009), 5.

INTERNET USAGE PER 100 INHABITANTS

International Telecommunication Union

					SCAI	ED D	ATA:					
	RAW	DATA	۱:		Ranke	d			Scaled	Overal	10-100	
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007
Angola	0.11	1.14	1.91	2.84	39	34	31	28	0.3	2.9	5.0	7.4
Benin	0.23	1.27	1.54	1.79	21	31	32	34	0.6	3.3	4.0	4.6
Botswana	2.90	3.26	4.29	5.28	5	19	20	18	7.5	8.5	11.2	13.7
Burkina Faso	0.08	0.47	0.63	0.75	42	45	44	45	0.2	1.2	1.6	1.9
Burundi	0.08	0.54	0.66	0.70	42	42	42	46	0.2	1.4	1.7	1.8
Cameroon	0.25	1.40	2.03	2.93	20	29	29	27	0.6	3.6	5.3	7.6
Cape Verde	1.82	6.07	6.81	8.28	8	9	12	10	4.7	15.8	17.7	21.6
Central African Republic	0.05	0.27	0.31	0.38	46	48	48	50	0.1	0.7	0.8	1.0
Chad	0.04	0.40	0.58	0.85	47	46	46	42	0.1	1.0	1.5	2.2
Comoros	0.27	3.24	3.33	3.42	19	20	23	26	0.7	8.4	8.7	8.9
Congo (Brazzaville)	0.03	1.46	2.01	2.76	49	28	30	29	0.1	3.8	5.2	7.2
Congo, Democratic Rep.	0.01	0.24	0.30	0.37	53	49	50	51	0.0	0.6	0.8	0.9
Cote d'Ivoire	0.23	1.04	1.52	2.24	21	36	33	31	0.6	2.7	3.9	5.8
Djibouti_	0.19	1.24	1.34	1.34	27	32	34	37	0.5	3.2	3.5	3.5
Equatorial Guinea	0.13	1.15	1.28	1.56	35	33	35	35	0.3	3.0	3.3	4.0
Eritrea	0.14	1.79	2.16	2.51	33	26	27	30	0.3	4.6	5.6	6.5
Ethiopia	0.02	0.22	0.31	0.37	51	50	48	51	0.0	0.5	0.8	0.9
Gabon	1.22	4.89	5.49	5.77	10	12	15	16	3.2	12.7	14.3	15.0
Gambia	0.92	3.80	5.24	6.21	12	16	16	15	2.4	9.9	13.6	16.2
Ghana	0.15	1.83	2.72	3.85	32	25	25	23	0.4	4.7	7.1	10.0
Guinea	0.10	0.54	0.64	0.78	41	42	43	44	0.2	1.4	1.6	2.0
Guinea-Bissau	0.23	1.90	2.06	2.21	21	24	28	32	0.6	4.9	5.3	5.7
Kenya	0.32	3.10	7.53	7.95	18	21	10	12	0.8	8.1	19.6	20.7
Lesotho	0.21	2.58	2.98	3.45	24	23	24	25	0.5	6.7	7.7	9.0
Liberia	0.02	0.03	0.03	0.55	51	53	53	48	0.0	0.1	0.1	1.4
Madagascar	0.20	0.57	0.61	0.65	25	40	45	47	0.5	1.5	1.6	1.7
Malawi	0.13	0.38	0.43	0.97	35	47	47	39	0.3	1.0	1.1	2.5
Mali	0.14	0.51	0.73	0.81	33	44	41	43	0.3	1.3	1.9	2.1
Mauritania	0.19	0.67	0.98	1.43	27	39	38	36	0.5	1.7	2.5	3.7
Mauritius	7.28	23.96	25.36	26.75	2	2	2	2	18.9	62.4	66.1	69.7
Mozambique	0.11	0.85	0.84	0.91	39	38	40	41	0.3	2.2	2.2	2.3
Namibia	1.64	4.01	4.40	4.84	9	14	18	20	4.2	10.4	11.4	12.6
Niger	0.04	0.22	0.29	0.39	47	50	51	49	0.1	0.5	0.7	1.0
Nigeria	0.06	3.55	5.55	6.77	44	18	14	14	0.1	9.2	14.4	17.6
Rwanda	0.06	0.56	1.09	2.12	44	41	37	33	0.1	1.4	2.8	5.5
Sao Tome and Principe	4.64	13.76	14.18	14.59	4	4	4	5	12.1	35.8	36.9	38.0
Senegal	0.40	4.79	5.61	6.89	16	13	13	13	1.0	12.5	14.6	17.9
Seychelles	7.40	25.41	34.95	38.38	1	1	1	1	19.3	66.2	91.1	100.0
Sierra Leone	0.12	0.22	0.23	0.24	37	50	52	53	0.3	0.5	0.6	0.6
Somalia	0.20	1.08	1.10	1.12	25	35	36	38	0.5	2.8	2.8	2.9
South Africa	5.35	7.49	7.61	8.07	3	8	9	11	13.9	19.5	19.8	21.0
Sudan	0.03	1.29	8.09	8.66	49	30	8	9	0.1	3.3	21.1	22.5
Swaziland	0.93	3.70	3.70	4.10	11	17	22	22	2.4	9.6	9.6	10.7
Tanzania	0.12	0.99	0.97	0.97	37	37	39	39	0.3	2.6	2.5	2.5
Togo	1.91	5.01	5.21	5.42	7	11	17	17	5.0	13.0	13.6	14.1
Uganda	0.16	1.74	2.53	3.67	31	27	26	24	0.4	4.5	6.6	9.5
Zambia	0.19	2.85	4.16	4.87	27	22	21	19	0.5	7.4	10.8	12.7
Zimbabwe	0.40	8.02	9.79	10.85	16	7	7	7	1.0	20.9	25.5	28.3
Algeria	0.49	5.84	7.38	10.34	15	10	11	8	1.3	15.2	19.2	26.9
Egypt	0.64	11.70	12.52	13.16	14	5	6	6	1.6	30.5	32.6	34.3
Libya	0.19	3.92	4.30	4.72	27	15	19	21	0.5	10.2	11.2	12.3
Morocco	0.69	15.08	19.77	21.14	13	3	3	3	1.8	39.3	51.5	55.1
Tunisia	2.75	9.66	12.99	17.10	6	6	5	4	7.1	25.1	33.8	44.5

Category:	Sustainable Economic Opportunity
Sub-Category:	Environment Sensitivity

INDICATOR: ENVIRONMENTAL PERFORMANCE INDEX

The 2008 Environment 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 Africa, EPI scores average 59.5, with lows of 39.1 in Niger and 40.0 in Sierra Leone to highs of 77.3 in Gabon and 78.1 in Mauritius and Tunisia.

In previous years, the Index of African Governance included the EPI directly in its scores. This year, we have chosen to include the EPI only for reference and in alternative scores for the category of Sustainable Economic Opportunity. This change does not reflect any change in the importance of this indicator, but reflects instead continuing discussions of methodology, our concerns about missing data for a number of countries, and the fact that the data employed in the construction of the EPI are less up-to-date than is ideal for our project. In 2009, the independent sensitivity analysis of the Index completed by Saisana, Annoni, and Nardo of the European Commission's Joint Research Centre showed that, although the Index was relatively robust overall, the category of Sustainable Economic Opportunity was the least robust area, in particular due to missing values in this indicator.

Technical Notes

The 2008 Ibrahim Index of African Governance uses the 2008 EPI for all years (2000, 2002, 2005, and 2006). It should be noted that data limitations mean that the 2008 EPI must rely on figures for earlier years.² The 2007 Ibrahim 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, Libya, São Tomé and Príncipe, the Seychelles, and Somalia. Given the lack of available estimates for these ten 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. Calculations that 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–52.4–as a substitute for the missing Environmental Sensitivity sub-scores for these ten countries.⁴ These substitutions are indicated in bold in the category datasheets.

¹ See http://epi.yale.edu/Framework (last accessed 26 May 2009).

² For further information, see Esty, et al., 2008 Environmental Performance Index, 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 Index score is different from the EPI score. The average EPI score across available Index countries is 59.5.

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 EPI.⁵

⁵ See www.yale.edu/epi/files/2008EPI_References.pdf (last accessed 26 May 2009).

2008 ENVIRONMENTAL PERFORMANCE INDEX

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					SCAL	ED D	ATA:					
F	RAW I	DATA:			Ranke	d			Scaled	Overal	l 0-100	
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007
Angola	39.5	39.5	39.5	39.5	42	42	42	42	1.1	1.1	1.1	1.1
Benin	56.1	56.1	56.1	56.1	25	25	25	25	43.6	43.6	43.6	43.6
Botswana	68.7	68.7	68.7	68.7	13	13	13	13	75.9	75.9	75.9	75.9
Burkina Faso	44.3	44.3	44.3	44.3	38	38	38	38	13.5	13.5	13.5	13.5
Burundi	54.7	54.7	54.7	54.7	30	30	30	30	40.0	40.0	40.0	40.0
Cameroon	63.8	63.8	63.8	63.8	16	16	16	16	63.4	63.4	63.4	63.4
Cape Verde												
Central African Republic	56.0	56.0	56.0	56.0	26	26	26	26	43.5	43.5	43.5	43.5
Chad	45.9	45.9	45.9	45.9	37	37	37	37	17.5	17.5	17.5	17.5
Comoros												
Congo (Brazzaville)	69.7	69.7	69.7	69.7	9	9	9	9	78.5	78.5	78.5	78.5
Congo, Democratic Rep.	47.3	47.3	47.3	47.3	36	36	36	36	21.2	21.2	21.2	21.2
Cote d'Ivoire	65.2	65.2	65.2	65.2	14	14	14	14	67.0	67.0	67.0	67.0
Djibouti	50.5	50.5	50.5	50.5	34	34	34	34	29.4	29.4	29.4	29.4
Equatorial Guinea												
Eritrea	59.4	59.4	59.4	59.4	22	22	22	22	52.3	52.3	52.3	52.3
Ethiopia	58.8	58.8	58.8	58.8	23	23	23	23	50.7	50.7	50.7	50.7
Gabon	77.3	77.3	77.3	77.3	3	3	3	3	97.9	97.9	97.9	97.9
Gambia												
Ghana	70.8	70.8	70.8	70.8	7	7	7	7	81.3	81.3	81.3	81.3
Guinea	51.3	51.3	51.3	51.3	33	33	33	33	31.4	31.4	31.4	31.4
Guinea-Bissau	49.7	49.7	49.7	49.7	35	35	35	35	27.3	27.3	27.3	27.3
Kenya	69.0	69.0	69.0	69.0	11	11	11	11	76.8	76.8	76.8	76.8
Lesotho												
Liberia												
Madagascar	54.6	54.6	54.6	54.6	31	31	31	31	39.8	39.8	39.8	39.8
Malawi	59.9	59.9	59.9	59.9	21	21	21	21	53.4	53.4	53.4	53.4
Mali	44.3	44.3	44.3	44.3	39	39	39	39	13.5	13.5	13.5	13.5
Mauritania	44.2	44.2	44.2	44.2	40	40	40	40	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	32	32	32	32	38.1	38.1	38.1	38.1
Namibia	70.6	70.6	70.6	70.6	8	8	8	8	80.9	80.9	80.9	80.9
Niger	39.1	39.1	39.1	39.1	43	43	43	43	0.0	0.0	0.0	0.0
Nigeria	56.2	56.2	56.2	56.2	24	24	24	24	43.8	43.8	43.8	43.8
Rwanda	54.9	54.9	54.9	54.9	29	29	29	29	40.5	40.5	40.5	40.5
Sao Tome and Principe												
Senegal	62.8	62.8	62.8	62.8	17	17	17	17	60.9	60.9	60.9	60.9
Sevchelles												
Sierra Leone	40.0	40.0	40.0	40.0	41	41	41	41	2.5	2.5	2.5	2.5
Somalia												
South Africa	69.0	69.0	69.0	69.0	12	12	12	12	76.7	76.7	76.7	76.7
Sudan	55.5	55.5	55.5	55.5	27	27	27	27	42.2	42.2	42.2	42.2
Swaziland	61.3	61.3	61.3	61.3	20	20	20	20	57 1	57 1	57 1	57 1
Tanzania	63.9	63.9	63.9	63.9	15	15	15	15	63.6	63.6	63.6	63.6
Топо	62.3	62.3	62.3	62.3	18	18	18	18	59.6	59.6	59.6	59.6
10go Llaanda	61.6	61.6	61.6	61.6	19	19	19	19	57.7	57.7	57.7	57.7
Ugallua Zambia	55 1	55.1	55 1	55 1	28	28	28	28	41.2	41.2	41.2	41.2
ZaiiiUla Zimbabwa	60.2	60.2	60.2	60.3	10	10	10	10	77.4	77.4	77.4	77.4
Algeria	77.0	77.0	77.0	77.0	4	4	4	4	97.2	97.2	97.2	97.2
Fount	76.2	76.2	76.2	76.3	5	5	5	5	05.4	95.4	05.4	95.4
Egypt	70.3	70.3	70.3	70.5	0	0	0	0	90.4	30.4	90.4	90.4
LiDya	72.1	72.1	72 1	72.1	6	6	6	6	84 F	84 F	84 F	84 F
Tunisio	70 4	70.4	70 4	70.1	2	2	2	2	100.0	100.0	100.0	100.0
i unista	70.1	70.1	70.1	70.1	2	2	2	2	100.0	100.0	100.0	100.0

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 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 2009 Index of African Governance's category for Human Development focuses on twenty-two sub-sub-categories (indicators), within three sub-categories: poverty, health and sanitation, and educational opportunity. Each of the sub-categories is weighted equally within its sub-category, and the three sub-categories are each weighted equally in constructing the overall score for Human Development. The specific indicators included in the category of Human Development are summarized below.

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 2009 Index of African Governance does not employ the HDI directly because the HDI does not provide a detailed enough picture for our purposes of variation in human development outcomes. 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.

As with the category of Sustainable Economic Opportunity, the latest Index scores in this category also illustrate the strong effect of relative wealth and development, particularly when North Africa is compared to sub-Saharan Africa. Thus, in 2007, Tunisia ranks at the top of this category, followed by Mauritius, Libya, the Seychelles, and Egypt. Algeria, Morocco, Gabon, Cape Verde, and Ghana complete the top ten. At the bottom of the list are Chad (53rd), the Central African Republic, Niger, Somalia, and Equatorial Guinea.

The components of the Human Development category are:

Poverty

1. 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.

2. What percent of people live on less than \$1.25 (PPP) per person per day (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 World Bank's World Development Indicators (WDI) 2009 and the OECD and African Development Bank's *African Economic Outlook* 2009. 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 accompanying these three indicators.

We present the best currently available data for these indicators. Two points should be noted about these data: First, these data are generally based on 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 could in some cases 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*.¹ Second, 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

In this sub-category, the Index considers twelve indicators. The first eight highlight life expectancy, mortality, and disease. The next two indicators highlight simple measures of access to health services. The final two in this section focus on access to potable water and sanitation facilities.

1. Life expectancy at birth, expressed in years, from the WDI 2009, 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 [2007], 1040–1054). Data are available on the Institute for Health Metrics and Evaluation (IHME) website.

3. Maternal mortality ratio 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 2009.

4. The prevalence of undernourishment in the total population, a measure of food security, estimated by the Food and Agriculture Organization (FAO).

5. Percentage of children (aged 12-23 months) immunized against measles, according to WHO and UNICEF, as reported in

¹ 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 United States. 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.

the WDI 2009.

6. Percentage of children (aged 12–23 months) immunized against diphtheria, pertussis (whooping cough), and tetanus (DPT), based on data from the Institute for Health Metrics and Evaluation (IHME), based on Stephen S. Lim, David B. Stein, Alexandra Charrow, and Christopher Murray ("Tracking Progress towards Universal Childhood Immunisation and the Impact of Global Initiatives: A Systematic Analysis of Three-dose Diphtheria, Tetanus, and Pertussis Immunisation Coverage," *The Lancet*, CCCLXXII [2008], 2031–2046).

7. Percentage of people (aged 15–49 years) living with HIV, based on UNAIDS and the WHO's Report on the Global AIDS Epidemic, as reported in the WDI 2009.

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 2009.

9. Access to qualified physicians: physicians per 1,000 people, from the WHO Statistical Information System, as reported in the WDI 2009. Additional information compiled by our in-country researchers is reported in the descriptive note to this indicator.

10. Access to trained nurses: nursing and midwifery personnel per 1,000 people, from the WHO Statistical Information System, as reported in the WDI 2009. Additional information compiled by our in-country researchers is reported in the descriptive note to this indicator.

11. Percentage of the population with access to improved sanitation facilities, from the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation.

12. Percentage of the population with access to potable water, from the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation.

Educational Opportunity

In a well-governed state, children will have access to basic education. At an absolute minimum, this education will include primary schooling for both boys and girls. In better governed states, it will also include high rates of secondary and tertiary education. In this sub-category, the Index considers two indicators of educational outcomes (literacy rates overall and among women), four indicators of access to education, and one indicator of educational quality. In terms of educational access, the Index first measures the primary school completion rate among all students and the rate among female students only. It also assesses the progression from primary to secondary school, and whether boys and girls are provided equal access to education. Educational quality is particularly problematic to measure across countries. As a rough indicator of educational quality the Index uses an additional simple measure available for most African countries: the pupil-teacher ratio in primary schools.

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 2009.

4. Primary school completion rate among girls, from UNESCO as reported in the WDI 2009.

5. *Educational persistence*, or the percentage of all students who progress from primary to secondary school, from UNESCO as reported in the WDI 2009.

6. Ratio of female to male students in primary and secondary schools, from UNESCO as reported in the WDI 2009.

7. Pupil to teacher ratio in primary schools (employed as a measure of the quality of education), from UNESCO as reported in the WDI 2009.

Other Indicators

The 2009 Index of African Governance team also researched a number of other important indicators that 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. The 2008 Ibrahim Index of African Governance includes a 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. Readers should consult the World Health Organization's *World Malaria Report 2008* (Geneva, 2008) for available statistics.²

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; in mid-2009 it was 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 for only a small portion of the African countries for the years required. We continue to work toward better statistics and to follow the ongoing efforts of organizations such as UNESCO and the Association for the Development of Education in Africa (ADEA)'s Working Group on Education Statistics to improve these statistics.

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 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.,

² For a discussion on estimation of the number of malaria deaths and cases, see in particular, pages 130-140 of the Malaria Report.

2006).

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- 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 2007 SCORE)

1	Tunisia	89.0
2	Mauritius	88.8
3	Libya	88.5
4	Seychelles	87.8
5	Egypt	86.8
6	Algeria	85.7
7	Morocco	76.7
8	Gabon	71.7
9	Cape Verde	70.6
10	Ghana	66.3
11	Botswana	66.0
12	South Africa	65.5
13	Kenya	63.7
14	Namibia	60.6
15	Mauritania	60.0
16	Gambia	59.5
17	Sao Tome and Principe	59.5
18	Sudan	59.4
19	Djibouti	57.9
20	Tanzania	56.9
21	Lesotho	54.9
22	Cameroon	54.9
23	Uganda	54.5
24	Congo (Brazzaville)	54.1
25	Senegal	53.7
26	Malawi	53.1
27	Benin	52.9
28	Swaziland	52.1
29	Ethiopia	51.8
30	Тодо	50.6
31	Nigeria	50.6
32	Comoros	50.5
33	Zimbabwe	50.1
34	Madagascar	48.5
35	Zambia	48.4
36	Cote d'Ivoire	47.9
37	Burundi	47.1
38	Eritrea	46.6
39	Burkina Faso	45.6
40	Guinea	43.7
41	Mali	43.3
42	Rwanda	42.9
43	Guinea-Bissau	42.3
44	Angola	41.7
45	Sierra Leone	41.7
46	Liberia	39.3
47	Mozambique	38.4
48	Congo, Democratic Republic	38.0
49	Equatorial Guinea	37.6
50	Somalia	34.4
51	Niger	33.4
52	Central African Republic	32.2
53	Chad	31.5

HUMAN DEVELOPMENT CATEGORY SCORES (LISTED BY COUNTRY "A" TO "Z")

	2000	2002	2005	2006	2007
Angola	38.4	39.7	40.1	40.2	41.7
Benin	47.4	46.7	52.5	52.8	52.9
Botswana	64.7	64.9	65.5	65.8	66.0
Burkina Faso	33.4	40.0	43.6	44.4	45.6
Burundi	34.6	35.5	46.0	46.4	47.1
Cameroon	50.9	51.1	53.7	54.2	54.9
Cape Verde	70.3	70.3	68.6	70.9	70.6
Central African Republic	31.4	31.7	31.9	32.1	32.2
Chad	26.6	28.3	30.3	31.0	31.5
Comoros	47.9	49.0	51.1	50.4	50.5
Congo (Brazzaville)	49.6	50.0	51.5	54.2	54.1
Congo. Democratic Rep.	36.7	35.7	36.3	37.8	38.0
Cote d'Ivoire	49.7	48.1	49.3	47.4	47.9
Djibouti	51.0	51.5	55.7	57.4	57.9
Equatorial Guinea	36.6	34.9	36.2	36.5	37.6
Eritrea	43.2	43.0	46.7	46.2	46.6
Ethiopia	41.8	43.3	50.2	51.3	51.8
Gabon	69.7	69.9	70.4	71.8	71.7
Gambia	48.4	54.7	58 5	59.1	59.5
Ghana	59.8	60.5	65.6	65.7	66.3
Guinea	36.4	37.6	43.1	43.5	43.7
Guinea Bissou	41.1	41.6	42.2	42.3	43.7
Guinea-Bissau Konyo	41.1	41.0	42.2	42.5	42.3
L esotho	50.0	51.4	52.0	54.0	54.0
L'iberia	24.2	24.2	20.7	20.2	20.2
Madagascar	34.2	34.3	39.7	39.2	39.3 49.5
Malayvi	42.0	50.4	F0.5	F2 0	F2 1
Moli	43.4	27.5	32.0	42.6	42.2
Iviali Mauritania	54.0	57.5	42.2	42.0	43.3
Mauritania	54.9	57.5	58.0	58.5	00.0
Mauritius	07.0	07.9	00.0	00.0	00.0
Mozamoique	20.9	32.5	37.0	37.0	38.4
Nigor	01.2	00.5	22.0	20.5	00.0
Nigeria	25.7	21.2	52.9	52.5	50.6
Rwanda	45.8	47.5	50.1 40.5	50.0	42.0
Sao Tome and Principe	54.0	59.9	42.5	42.9	42.9
Sub Tome and Timepe Senegal	34.2	30.1	52.0	59.9	59.5
Savahallas	44.7	40.7	02.9	53.3	07.0
Sierra Leone	87.2	87.9	87.0	87.7	87.8
Somalia	33.6	35.2	40.7	41.7	41.7
South A frice	54.Z	54.5	54.2	54.4	54.4 05.5
South Allica	55.2	56.2	50.2	60.0 59.5	65.5 50.4
Sudan	55.2	50.2	52.2	50.0	53.4
Swaziland	51.1	50.5	52.3	52.2	52.1
Tanzania	50.5	50.6	52.7	55.0	50.9
logo	47.9	50.2	51.7	51.5	54.5
∪ganda Zambia	49.0	5U.3	04.U	04.4	04.0
Zamoia	42.4	43.4	40.1	47.5	40.4
	48.0	40.0	49.1	49.0	JU.I
Earnt	02.0	03.0	07.4	04.0	00.7
Egypt	07.0	07.0	07.1	00.4	00.0
L10ya_	71.1	72.6	75.0	76.0	76.7
Tunisia		86.8	88.3	80.0	80.0
1 0111510	04.0	00.0	00.0	00.0	00.0

HUMAN DEVELOPMENT RANK (LISTED BY COUNTRY "A" TO "Z")

	2000	2002	2005	2006	2007
Angola	40	41	45	45	44
Benin	30	33	26	27	27
Botswana	11	11	12	10	11
Burkina Faso	49	39	39	39	39
Burundi	45	45	37	37	37
Cameroon	20	21	21	23	22
Cape Verde	8	8	9	9	9
Central African Republic	50	51	52	52	52
Chad	52	52	53	53	53
Comoros	28	28	30	32	32
Congo (Brazzaville)	25	27	29	24	24
Congo, Democratic Rep.	41	44	48	47	48
Cote d'Ivoire	24	29	33	36	36
Djibouti	19	19	19	19	19
Equatorial Guinea	42	47	49	49	49
Eritrea	34	36	36	38	38
Ethiopia	37	35	31	30	29
Gabon	9	9	8	8	8
Gambia	27	18	17	16	16
Ghana	14	13	10	11	10
Guinea	43	42	40	40	40
Guinea-Bissau	38	38	43	43	43
Kenya	12	12	13	13	13
Lesotho	21	20	23	21	21
Liberia	46	49	46	46	46
Madagascar	35	37	35	34	34
Malawi	33	23	25	26	26
Mali	44	43	42	42	41
Mauritania	16	15	18	18	15
Mauritius	1	2	1	2	2
Mozambique	51	50	47	48	47
Namibia	13	14	14	14	14
Niger	53	53	51	51	51
Nigeria	31	31	32	31	31
Rwanda	39	40	41	41	42
Sao Tome and Principe	17	17	15	15	17
Senegal	32	32	22	25	25
Seychelles	3	1	3	4	4
Sierra Leone	48	46	44	44	45
Somalia	47	48	50	50	50
South Africa	10	10	11	12	12
Sudan	15	16	16	17	18
Swaziland	18	25	27	28	28
Tanzania	22	22	24	20	20
Togo	29	24	28	29	30
Uganda	26	26	20	22	23
Zambia	36	34	38	35	35
Zimbabwe	23	30	34	33	33
Algeria	6	6	6	6	6
Egypt	5	5	5	5	5
Libva	2	3	4	3	3
Morocco	7	7	7	7	7
Tunisia	4	4	2	1	1

HUMAN DEVELOPMENT SUMMARY OF INDICATORS AND PRINCIPAL SOURCES

Sub-Category 1: Poverty

1	Percent of people who live below the national poverty line	Based on the World Bank's World Development					
2	Percent of people who live on less than \$1.25 per person per day (PPP)	Indicators (WDI) 2009; the OECD and African Development Bank's African Economic Outlook 2009;					
3	Income inequality, measured with the Gini index	researchers					

Sub-Category 2: Health and Sanitation

4	Life expectancy at birth (years)	World Bank's WDI 2009 (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 [2007], 1040– 1054)
6	Maternal mortality ratio 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,</i> <i>UNICEF, UNFPA, and The World Bank</i> (Geneva, 2007), as reported in the WDI 2009
7	Food security, assessed in terms of the prevalence of undernourishment in the total population	FAO Statistics Division
8	Percent of children (aged 12–23 months) immunized against measles	WHO and UNICEF, as reported in the WDI 2009
9	Percent of children (aged 12–23 months) immunized against diphtheria, pertussis (whooping caugh), and tetanus (DPT)	From the Institute for Health Metrics and Evaluation (IHME), based on Stephen S. Lim, David B. Stein, Alexandra Charrow, and Christopher Murray ("Tracking Progress towards Universal Childhood Immunisation and the Impact of Global Initiatives: A Systematic Analysis of Three-dose Diphtheria, Tetanus, and Pertussis Immunisation Coverage," <i>The Lancet</i> , CCCLXXII [2008], 2031–2046)
10	Percentage of people (aged 15–49 years) living with HIV, from the MDG Indicators	UNAIDS and the WHO's Report on the Global AIDS <i>Epidemic</i> , as reported in the WDI 2009
11	Estimated number of new TB cases (incidence) per 100,000 people	WHO's Global Tuberculosis Control Report, as reported in the WDI 2009
12	Physicians per 1,000 people	WHO Statistical Information System as reported in the
13	Nursing and midwifery personnel per 1,000 people	WDI 2009

14	Percentage of the population with access to	
	improved sanitation facilities	WHO/UNICEF Joint Monitoring Programme for Water
15	Percentage of the population with access to potable water	Supply and Sanitation 2008

Sub-Category 3: Education

16	Adult literacy rate	United Nations Educational, Scientific and Cultural Organization (UNESCO) Institute of Statistics (UIS)					
17	Adult literacy rate among women						
18	Primary school completion rate (the percentage of school-aged children who complete the last year of primary school)						
19	Primary school completion rate among girls						
20	Persistence, assessed as the percentage of all students who continue from primary to secondary school	UNESCO, as reported in the WDI 2009					
21	Ratio of female to male students in primary and secondary schools						
22	Pupil to teacher ratio in primary schools (employed as a measure of the quality of education)						

HUMAN DEVELOPMENT

	a) Poverty b) Health/Sanitation								
	National	\$1.25/							
	Poverty	person/	- 11.	Life	Child	Maternal	Under-	Immun.,	Immun.,
A 1	Line	day	Inequality	Expectancy	Mortality	Mortality	nourishment	Measles	DPT
Angola	l 68.0	54.3	58.6	42.7	240.6	1400	46	88	41.2
Delli	36.8	47.3	38.6	56.7	128.3	840	19	61	67.6
Botswana	a 30.3	31.2	61.0	50.6	37.7	380	26	90	96.5
Burkina Fasc	46.4	56.5	39.6	52.2	163.4	700	10	94	78.4
Burund	36.2	81.3	33.3	49.5	189.6	1100	63	75	88.0
Cameroon Como Vondo	1 39.9	32.8	44.6	50.4	125.4	1000	23	74	75.3
Cape verde	36.7	20.6	50.5	71.3	31.3	210	15	74	83.6
Central African Republic	67.2	62.4	43.6	44.7	147.1	980	43	62	56.7
Chac	64.0	61.9	39.8	50.6	176.8	1500	39	23	35.2
Comoros	3 44.8	46.1	64.3	65.1	53.0	400	52	65	68.1
Congo (Brazzaville)	50.7	54.1	47.3	55.3	124.3	740	22	67	75.1
Congo, Democratic Rep.	. 71.3	59.2	44.4	46.4	219.5	1100	76	79	49.0
Cote d'Ivoire	48.9	23.3	48.4	48.4	110.4	810	14	67	73.4
Djibout	42.1	18.8	40.0	54.8		650	32	74	61.3
Equatorial Guinea	76.8			51.5	211.8	680		51	25.0
Eritrea	1 53.0			57.9	64.1	450	68	95	96.0
Ethiopia	38.7	39.0	29.8	52.9	114.6	720	46	65	38.1
Gabon	1 33.0	4.8	41.5	56.7	73.8	520	5	55	49.9
Gambia	61.3	34.3	47.3	59.4	96.5	690	30	85	86.9
Ghana	t 28.5	30.0	42.8	60.0	89.0	560	9	95	85.4
Guinea	53.0	70.1	43.3	56.0	126.7	910	17	71	57.7
Guinea-Bissau	l 65.7	48.8	35.5	46.4	185.2	1100	32	76	63.9
Kenya	45.9	19.7	47.7	54.1	94.7	560	32	80	87.1
Lesothe) 64.0	43.4	52.5	42.6	76.2	960	15	85	87.8
Liberia	63.8	83.7	52.6	45.7	168.8	1200	40	95	50.8
Madagascar	r 67.5	67.8	47.2	59.4	90.6	510	37	81	68.2
Malawi	54.2	73.9	39.0	48.3	126.2	1100	29	83	85.8
Mal	63.8	51.4	39.0	54.3	184.2	970	11	68	70.3
Mauritania	46.3	21.2	39.0	64.1	95.5	820	8	67	83.2
Mauritius	7.8	1.0	38.9	72.4	12.7	15	6	98	80.9
Mozambique	54.1	74.7	47.1	42.1	167.3	520	38	77	79.1
Namibia	27.8		60.0	52.8	45.1	210	19	69	79.3
Niger	62.1	65.9	43.9	56.9	200.7	1800	29	47	44.1
Nigeria	t 54.4	64.4	42.9	46.8	193.6	1100	9	62	55.1
Rwanda	60.3	76.6	46.7	46.2	166.0	1300	40	99	89.7
Sao Tome and Principe	53.8		49.0	65.4	132.0		5	86	91.2
Senegal	53.9	33.5	39.2	63.0	98.8	980	26	84	78.4
Seychelles	5		39.1	73.2			9	99	94.8
Sierra Leone	67.5	53.4	42.5	42.5	249.4	2100	47	67	75.0
Somalia	l			48.1	219.7	1400		34	20.1
South Africa	48.0	26.2	57.8	50.5	69.0	400	5	83	91.1
Sudar	1			58.5	91.5	450	21	79	61.7
Swaziland	69.2	62.9	50.7	39.6	77.2	390	18	91	91.0
Tanzania	35.7	88.5	34.6	52.5	117.4	950	35	90	84.9
Togo	61.7	38.7	34.4	58.4	105.5	510	37	80	69.3
Uganda	37.7	51.5	42.6	51.5	132.5	550	15	68	65.5
Zambia	64.0	64.3	50.7	42.3	163.3	830	45	85	89.8
Zimbabwe	72.0		50.1	43.4	65.5	880	40	66	66.5
Algeria	15.0	6.8	35.3	72.3	27.9	180	5	92	94.5
Egypt	t 19.6	2.0	32.1	71.3	31.6	130	5	97	93.0
Libya	14.0			74.2	10.2	97	5	98	91.9
Morocco) 14.2	2.5	40.9	71.1	38.4	240	5	95	96.1
Tunisia	3.8	2.6	40.8	74.3	20.6	100	5	98	96.0

SUMMARY OF RAW DATA (2007)

c)Education

HIV Prevalence	TB	Physicians	Nurses	Sanitation	Water	Literacy	Literacy, Female	Primary School	Primary, Female	Educ. Progress	G-B Ratio	P-T Ratio
2.1	286.5	0.08	1.35	50	51	67.4	54.2				82.1	41.0
1.2	90.9	0.04	0.84	30	65	40.5	27.9	64.4	52.5	71.3	73.5	43.6
23.9	731.4	0.40	2.65	47	96	82.9	82.9	94.6	98.5	97.1	100.0	24.2
1.6	226.2	0.05	0.49	13	72	28.7	21.6	33.3	29.2	45.5	81.8	47.7
2.0	367.0	0.03	0.19	41	71	59.3	52.2	39.2	36.0	30.8	90.0	52.0
5.1	191.7	0.19	1.60	51	70	67.9	59.8	55.5	50.3	35.8	84.5	44.4
	150.5	0.49	0.87	41	80	83.8	78.8	86.2	88.4	83.4	100.0	24.9
6.3	345.1	0.08	0.41	31	66	48.6	33.5	24.4	18.7	46.8		102.4
3.5	298.7	0.04	0.28	9	48	31.8	20.8	31.2	21.1	51.3	64.3	60.4
0.1	42.0	0.15	0.74	35	85	75.1	69.8	50.5	49.1	63.2	84.2	35.0
3.5	403.1	0.20	0.96	20	71	84.7	79.0	72.3	69.6	58.1	90.2	58.5
	391.7	0.11	0.53	31	46	67.2	54.1	50.7	40.8		73.4	38.3
3.9	420.5	0.12	0.60	24	81	48.7	38.6	44.7	36.4	48.3	68.4	41.0
3.1	812.5	0.18	0.42	67	92	70.3		35.5	31.6	87.9	78.9	35.5
3.4	255.9	0.30	0.53	51	43	87.0	80.5	66.7	65.1		82.5	27.6
1.3	95.4	0.05	0.58	5	60	64.2	53.0	46.4	40.6	77.2	77.8	47.9
2.1	378.2	0.03	0.22	11	42	35.9	22.8	46.3	41.3	88.7	82.6	46.0
5.9	406.4	0.29	5.02	36	87	86.2	82.2	74.7	76.2		95.8	36.0
0.9	258.4	0.11	1.32	52	86	42.5		71.6	72.8	94.0	100.0	40.9
1.9	202.9	0.15	0.92	10	80	65.0	58.3	70.7	67.8	86.8	95.2	35.3
1.6	287.4	0.11	0.51	19	70	29.5	18.1	64.2	55.0	64.8	74.4	45.4
1.8	219.9	0.12	0.70	33	57	44.8		26.9	19.3	63.2	65.0	44.1
	352.6	0.14	1.18	42	57	73.6	70.2	92.6	91.6		96.1	39.5
23.2	636.6	0.05	0.62	36	78	82.2	90.3	78.3	92.1	68.3	100.0	40.4
17	277 1	0.03	0.30	32	64	55.5	50.9	54 7	49.8	00.0	72 7	19.3
0.1	250.8	0.29	0.32	12	47	70.7	65.3	61.5	61.3	60.5	96.5	48.7
11.0	345.7	0.02	0.52	60	76	71.8	64.6	55.4	55.9	73.5	90.9	-0.7
1.5	319.0	0.02	0.62	45	60	26.2	19.2	40.4	20.8	40.8	79.3	51.7
0.8	317.7	0.00	0.64	24	60	55.8	18.3	59.4	60.1	52.5	100.0	42.5
1.7	22.4	1.06	3.73	04	100	87.4	84.7	03.5	05.3	70.9	100.0	21.5
12.5	/31 3	0.03	0.32	31	42	44.4	33.0	46.3	30.0	58.3	85.4	64.8
15.3	766.9	0.03	2.06	25	72	99.0	97 4	77.1	90.0	77.2	100.0	20.0
15.5	174.0	0.30	0.00	-	35	00.7	07.4	20.0	00.9	10.2	74.5	29.9
0.8	210.7	0.02	1.70	20	42	20.7	15.1	39.0	51.0	40.5	71.5	39.7
3.1	207.0	0.26	0.42	30	47	64.0	50 0	25.5	24.0		100.0	40.4
2.8	397.0	0.05	0.43	23	00	04.9	09.0 00.7	30.0	34.9	40.0	100.0	09.3
1.0	101.1	0.49	1.87	24	60 77	87.9	82.7	12.1	13.1	48.3	100.0	30.8
1.0	271.5	0.06	0.32	28		41.9	33.0	40.7	40.0	50.2	92.4	34.2
	32.4	1.51	7.93		67	91.8	92.3	100.0	100.0	94.9	100.0	12.5
1.7	573.9	0.03	0.49	11	20	38.1	20.8	80.8	09.8		80.4	43.7
0.0	248.7	0.04	0.19	23	29	17.1	07.0	00.0	00.1	07.0	00.0	21.9
18.1	948.2	0.77	4.08	59	93	88.0	87.2	92.2	92.1	87.9	99.9	29.6
1.4	243.3	0.22	0.90	35	70	60.9	51.8	50.0	46.2	93.8	87.6	36.7
26.1	1198.0	0.16	6.30	50	60	83.8	83.7	66.7	69.1	88.3	94.7	32.9
6.2	297.4	0.02	0.37	33	55	72.3	65.9	85.4	83.5	58.2	98.9	53.1
3.3	429.2	0.04	0.39	12	59	53.2	38.5	57.4	48.0	53.2	75.4	39.1
5.4	329.6	0.08	0.71	33	64	73.6	65.5	54.4	51.5	42.9	97.6	49.0
15.2	506.1	0.12	2.01	52	58	70.6	60.7	88.1	82.6	58.3	95.6	49.3
15.3	782.1	0.16	0.72	46	81	91.2	88.3	81.0	79.5	69.7	97.2	38.2
0.1	56.6	1.13	2.23	94	85	75.4	66.4	95.1	96.1	80.9	99.3	24.0
	21.0	2.43	3.35	66	98	66.4	57.8	98.5	95.9	86.1	94.7	27.1
	17.2	1.25	4.80	97	71	86.8	78.4				100.0	
0.1	91.6	0.51	0.78	72	83	55.6	43.2	83.4	79.2	79.6	87.4	27.4
0.1	26.0	1.34	2.87	85	94	77.7	69.0	100.0	100.0	88.3	100.0	19.1

HUMAN DEVELOPMENT SUMMARY OF INDEX SCORES

	a) Povert	ty		b) Health/S	Sanitation							
	National	\$1.25/										
	Poverty	person/		Life	Child	Maternal	Under-	Immun.,	Immun.,	HIV		
Angola	Line	day	Inequality	Expectancy	Mortality	Mortality	nourishment	Measles	DPT	Prevalence	TB F	hysicians
Renin	12.1	39.1	16.4	10.1	9.1	33.6	42.3	85.5	28.9	92.6	77.2	2.5
Detawana	54.8	47.1	74.3	49.8	53.4	60.4	80.3	50.0	62.2	96.0	93.8	0.8
	63.7	65.5	9.7	32.5	89.2	82.5	70.4	88.2	98.7	12.5	39.5	15.8
Burkina Faso	41.6	36.5	71.5	37.1	39.6	67.1	93.0	93.4	75.9	94.5	82.3	1.2
Burundi	55.6	8.2	89.8	29.4	29.3	48.0	18.3	68.4	88.0	93.0	70.4	0.4
Cameroon	50.5	63.7	57.2	32.0	54.6	52.8	74.6	67.1	72.0	81.6	85.2	7.1
Cape Verde	54.9	77.7	39.9	91.4	91.7	90.6	85.9	67.1	82.4		88.7	19.5
Central African Republic	13.2	29.8	60.0	15.7	46.0	53.7	46.5	51.3	48.5	77.2	72.2	2.5
Chad	17.5	30.4	71.0	32.6	34.3	28.8	52.1	0.0	21.3	87.5	76.2	0.8
Comoros	43.8	48.5	0.0	73.9	83.1	81.5	33.8	55.3	62.9	100.0	97.9	5.4
Congo (Brazzaville)	35.8	39.3	49.2	45.8	55.0	65.2	76.1	57.9	71.7	87.5	67.3	7.5
Congo, Democratic Rep.	7.5	33.5	57.5	20.7	17.5	48.0	0.0	73.7	38.8		68.3	3.7
Cote d'Ivoire	38.2	74.5	46.1	26.3	60.5	61.9	87.3	57.9	69.6	86.0	65.8	4.1
Djibouti	47.5	79.6	70.5	44.4		69.5	62.0	67.1	54.3	89.0	32.6	6.7
Equatorial Guinea	0.0			35.3	20.5	68.1		36.8	8.5	87.9	79.8	11.6
Eritrea	32.6			53.3	78.7	79.1	11.3	94.7	98.1	95.6	93.4	1.2
Ethiopia	52.2	56.5	100.0	39.2	58.8	66.2	42.3	55.3	25.0	92.6	69.4	0.4
Gabon	60.0	95.6	66.2	50.0	74.9	75.8	100.0	42.1	39.9	78.7	67.0	11.2
Gambia	21.2	61.9	49.3	57.7	66.0	67.6	64.8	81.6	86.6	97.1	79.6	3.7
Ghana	66.2	66.9	62.4	59.3	68.9	73.9	94.4	94.7	84.7	93.4	84.3	5.4
Guinea	32.6	21.0	60.7	47.9	54.1	57.1	83.1	63.2	49.7	94.5	77.1	3.7
Guinea-Bissau	15.2	45.3	83.3	20.5	31.0	48.0	62.0	69.7	57.6	93.8	82.8	4.1
Kenya	42.3	78.6	48.1	42.4	66.7	73.9	62.0	75.0	86.9		71.6	4.9
Lesotho	17.5	51.5	34.2	9.7	74.0	54.7	85.9	81.6	87.8	15.1	47.5	1.2
Liberia	17.8	5.6	34.0	18.5	37.5	43.2	50.7	94.7	41.0	94.1	78.0	0.4
Madagascar	12.7	23.6	49.4	57.7	68.3	76.3	54.9	76.3	63.0	100.0	80.2	11.2
Malawi	31.0	16.8	73.2	25.9	54.3	48.0	66.2	78.9	85.2	56.6	72.2	0.0
Mali	17.8	42.4	73.3	43.1	31.4	54.2	91.5	59.2	65.7	94.9	74.4	2.5
Mauritania	41.8	77.0	73.1	71.1	66.4	61.4	95.8	57.9	81.9	97.4	74.6	3.7
Mauritius	94.5	100.0	73.5	94.7	99.0	100.0	98.6	98.7	79.0	94.1	99.6	43.2
Mozambique	31.1	15.8	49.8	8.3	38.1	75.8	53.5	71.1	76.8	54.4	64.9	0.4
Namibia	67.1		12.4	38.8	86.2	90.6	80.3	60.5	77.0	44.1	36.5	11.6
Niger	20.1	25.9	59.1	50.5	24.9	14.4	66.2	31.6	32.6	97.4	86.7	0.0
Nigeria	30.7	27.5	61.9	21.9	27.7	48.0	94.4	51.3	46.5	89.0	75.1	10.8
Rwanda	22.6	13.7	51.0	20.0	38.6	38.4	50.7	100.0	90.2	90.1	67.8	1.2
Sao Tome and Principe	31.5		44.3	74.8	52.0		100.0	82.9	92.0		92.9	19.5
Senegal	31.4	62.9	72.7	68.0	65.1	53.7	70.4	80.3	75.9	96.7	78.5	1.7
Sevchelles			73.0	96.8			94.4	100.0	96.6		98.7	61.8
Sierra Leone	12.7	40.2	63.1	9.7	5.7	0.0	40.8	57.9	71.6	94.1	52.9	0.4
Somalia				25.6	17.4	33.6		14.5	2.3	98.5	80.4	0.8
South Africa	39.5	71.2	18.9	32.2	76.8	81.5	100.0	78.9	91.9	33.8	21.2	31.1
Sudan			10.0	55.2	67.9	79.1	77.5	73.7	54.8	95.2	80.9	8.3
Sucal	10.4	29.3	39.4	1.3	73.6	82.0	81 7	89.5	91.8	4.4	0.0	5.8
Tanzania	56.3	0.0	85.9	37.9	57.7	55.2	57.7	88.2	84.1	77.6	76.3	0.0
Tanzania	20.7	56.9	86.5	54.7	62.4	76.3	54.9	75.0	64.4	88.2	65.1	0.8
10g0 Llocada	53.6	42.3	62.8	35.1	51.8	74.3	85.0	59.2	50.6	80.5	73.5	2.5
	17.5	27.7	20.2	0.1	30.6	60.0	43.7	81.6	00.0	14.5	58.6	4.1
Zaiii01a Zimbahuua	6.6	21.1	44.4	10.0	70.0	50.9	50.7	56.6	60.0	44.0	35.0	5.8
Ziiiidadwe	0.0	02.4	41.1	12.0	18.2	58.5 00.4	50.7	0.00	00.9	44.1	35.2	J.σ
Aigena	04.7 70.1	93.4	83.9	94.2	93.0	92.1	100.0	90.8	96.2	100.0	90.7	40.7
Egypt	/8.4	98.9	93.1	91.5	91.6	94.5	100.0	97.4	94.3		99.7	100.0
Libya	86.0		05.5	99.8	100.0	96.1	100.0	98.7	92.9	107.7	100.0	51.0
Morocco	85.8	98.3	67.8	91.0	88.9	89.2	100.0	94.7	98.2	100.0	93.7	20.3
Tunisia	100.0	98.2	68.0	100.0	95.9	95.9	100.0	98.7	98.1	100.0	99.3	54.8

AND CATEGORY CALCULATIONS (2007)

c)Education

							Progression						HUMAN	
				Literacy	Primary	Primary,	to Secondary	G-B	P-T	Poverty	Health	Education	DEVELOPMENT	
Nurses S	Sanitatior	n Water	Literacy	Female	School	Female	School	Ratio	Ratio	Sub-Score	Sub-Score	Sub-Score	2007	
15.0	49.5	36.4	67.3	54.0				59.5	68.3	22.5	40.2	62.3	41.7	
8.4	28.0	54.5	31.3	22.3	57.6	45.7	64.8	39.8	65.3	58.7	53.1	46.7	52.9	_
31.8	46.2	94.8	88.1	88.7	93.6	98.3	96.8	100.0	86.9	46.3	58.5	93.2	66.0	
3.9	9.7	63.6	15.5	14.7	20.5	19.1	32.9	58.7	60.9	49.9	55.1	31.8	45.6	
0.0	39.8	62.3	56.5	51.6	27.6	26.8	14.9	77.4	56.0	51.2	45.6	44.4	47.1	
18.2	50.5	61.0	68.0	60.8	46.9	43.2	21.0	64.9	64.5	57.1	54.7	52.7	54.9	
8.8	39.8	74.0	89.3	83.7	83.6	86.8	79.8	100.0	86.2	57.5	67.3	87.1	70.6	
2.8	29.0	55.8	42.2	29.1	9.8	7.1	34.6		0.0	34.3	41.8	20.5	32.2	
1.2	5.4	32.5	19.7	13.8	18.0	9.7	40.1	19.2	46.7	39.6	31.1	23.9	31.5	
7.1	33.3	80.5	77.6	72.9	41.0	41.8	54.8	64.2	75.0	30.8	59.6	61.0	50.5	
9.9	17.2	62.3	90.5	84.0	66.9	65.2	48.5	77.7	48.8	41.4	52.0	68.8	54.1	
4.4	29.0	29.9	67.1	53.9	41.2	32.3		39.8	71.3	32.8	30.4	50.9	38.0	
5.3	21.5	75.3	42.3	35.2	34.1	27.3	36.4	28.4	68.3	52.9	51.8	38.9	47.9	
3.0	67.7	89.6	71.2		23.1	21.8	85.4	52.1	74.4	65.9	53.3	54.7	57.9	
4.4	50.5	26.0	93.6	85.8	60.3	60.1		60.4	83.1	0.0	39.0	73.9	37.6	
5.0	1.1	48.1	63.1	52.6	36.1	32.1	72.2	49.6	60.6	32.6	55.0	52.3	46.6	
0.4	7.5	24.7	25.2	16.2	36.0	32.8	86.4	60.6	62.7	69.6	40.2	45.7	51.8	
62.4	34.4	83.1	92.5	87.8	69.8	72.8		90.5	73.8	73.9	60.0	81.2	71.7	
14.6	51.6	81.8	34.0		66.1	68.9	92.9	100.0	68.4	44.1	62.7	71.7	59.5	
9.4	6.5	74.0	64.1	59.0	65.0	63.2	84.0	89.1	74.6	65.1	62.4	71.3	66.3	
4.1	16.1	61.0	16.6	10.5	57.3	48.5	56.8	42.0	63.4	38.1	51.0	42.2	43.7	
6.6	31.2	44.2	37.1		12.9	7.8	54.9	20.6	64.9	48.0	46.0	33.0	42.3	
12.8	40.9	44.2	75.6	73.3	91.2	90.4		91.1	69.9	56.4	52.8	81.9	63.7	No
5.6	34.4	71.4	87.1	97.6	74.1	91.0	61.2	100.0	68.9	34.4	47.4	82.9	54.9	te:
1.4	30.1	53.2	51.4	50.1	46.0	42.6		38.1	92.4	19.1	45.2	53.5	39.3	See
1.7	8.6	31.2	71.8	67.4	54.1	55.7	51.5	92.0	59.7	28.6	52.4	64.6	48.5	ind
5.2	60.2	68.8	73.2	66.6	46.8	49.6	67.6	99.5		40.3	51.8	67.2	53.1	icat
5.6	44.1	48.1	12.2	10.6	39.7	31.1	38.3	50.7	56.4	44.5	51.2	34.2	43.3	Or
5.8	21.5	48.1	51.8	46.9	51.6	54.4	41.6	100.0	66.6	64.0	57.1	59.0	60.0	lesc
45.7	96.8	100.0	94.1	90.8	92.3	94.6	64.4	100.0	89.9	89.4	87.4	89.5	88.8	ript
1.7	29.0	24.7	36.5	28.5	36.0	30.8	48.8	67.0	41.8	32.2	41.6	41.3	38.4	ion
37.1	33.3	90.9	94.9	94.1	72.7	78.1	72.3	100.0	80.6	39.8	57.3	84.7	60.6	s fo
0.5	3.2	24.7	15.5	6.9	28.0	22.0	26.5	35.4	69.7	35.0	36.1	29.2	33.4	r so
19.5	28.0	31.2	73.5	66.0	67.1	59.6		63.7	68.9	40.0	45.3	66.5	50.6	urc
3.1	20.4	54.5	64.0	60.8	23.1	25.6		100.0	36.8	29.1	47.9	51.7	42.9	es a
21.7	21.5	81.8	94.8	88.4	66.8	70.0	36.5	100.0	79.6	37.9	63.9	76.6	59.5	nd a
1.7	25.8	70.1	33.2	28.5	38.8	38.9	38.8	82.8	75.8	55.6	57.3	48.1	53.7	addi
100.0		83.1	100.0	100.0	100.0	100.0	94.0	100.0	100.0	73.0	91.4	99.1	87.8	tion
3.9	7.5	39.0	28.1	21.0	77.1	65.5		69.2	65.2	38.7	32.0	54.4	41.7	nal i
0.0	20.4	7.8	0.0						82.9		27.4	41.4	34.4	info
50.3	59.1	90.9	94.9	93.8	90.6	91.0	85.3	99.8	80.9	43.2	62.3	90.9	65.5	Î
9.2	33.3	61.0	58.6	51.1	40.4	38.5	92.6	71.9	73.1		58.0	60.9	59.4	atio
78.9	49.5	48.1	89.3	89.6	60.3	64.7	85.9	87.9	77.3	26.4	50.5	79.3	52.1	P.Z
2.3	31.2	41.6	73.9	68.2	82.6	81.1	48.6	97.5	54.8	47.4	50.8	72.4	56.9	um
2.6	8.6	46.8	48.3	35.1	49.2	40.6	42.4	44.2	70.3	54.7	50.0	47.2	50.6	ber
6.7	31.2	53.2	75.6	67.7	45.7	44.5	29.7	94.6	59.3	52.9	51.1	59.6	54.5	s in
23.5	51.6	45.5	71.6	61.9	85.8	80.1	48.8	89.9	59.0	28.2	46.1	71.0	48.4	ital
6.8	45.2	75.3	99.2	95.2	77.4	76.5	62.9	93.7	71.4	23.8	44.1	82.3	50.1	lics
26.4	96.8	80.5	78.0	68.8	94.2	95.5	76.8	98.4	87.2	87.3	84.4	85.6	85.7	are
40.8	66.7	97.4	66.0	58.4	98.2	95.3	83.1	88.0	83.7	90.1	88.5	81.8	86.8	esti
59.6	100.0	62.3	93.3	83.2				100.0		86.0	87.3	92.2	88.5	ima
7.6	73.1	77.9	51.5	40.8	80.2	76.3	75.1	71.3	83.4	83.9	77.9	68.4	76.7	tes.
34.6	87.1	92.2	81.1	71.9	100.0	100.0	85.8	100.0	92.6	88.7	88.0	90.2	89.0	

Category:Human DevelopmentSub-Category:Poverty

INDICATORS: POVERTY AND INEQUALITY

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 national poverty line (which varies by country and may be above or below \$1.25 per person per day); the poverty rate at the international poverty line (\$1.25 per person per day at purchasing power parity [PPP]); and income inequality (measured by 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.

The data used in the 2009 Index of African Governance are derived from a variety of sources, but mostly from the World Bank's World Development Indicators (WDI) 2009 and the OECD and African Development Bank's *African Economic Outlook* 2009, which are standard international sources.¹ Data on poverty at the international poverty line have been adjusted for PPP and also reflect the new international poverty line for extreme poverty of \$1.25 per person per day. Previously, the standard international poverty line was \$1.00 per person per day. We supplement these data with estimates obtained directly from our own in-country research, as well as from Poverty Reduction Strategy Papers and other sources. This year, we provide poverty figures from our in-country sources for thirty-three countries. Details are provided below.

For each country, we use the closest year's best estimate for each of these three indicators.² However, given the limitations of available data, the Index of African Governance, like other projects, cannot generally assess year-to-year changes in poverty or inequality based on real data. 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 changes over time. One reason is that figures on poverty are based on household surveys, which are expensive and time-consuming, and thus are 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.

The data presented in the table below suggest the depth of poverty in Africa, and in sub-Saharan Africa in particular. Across countries and according to the most recent statistics, about 48 percent of Africans live below their country's national poverty line and about 44 percent live on less than \$1.25 per day (PPP). In sub-Saharan Africa, rates are still higher: about 52 percent are poor at national rates and about 48 percent live on less than \$1.25 per day.

Countries with the lowest national poverty estimates for 2007 include Tunisia (3.8 percent), Mauritius (7.8 percent), and Libya (14 percent). The highest levels are recorded in Equatorial Guinea, Zimbabwe, and the Democratic Republic of the Congo, where at least 70 percent of the population lives below the national poverty line.

In terms of poverty rates at the international line (\$1.25 per day), best estimates for 2007 suggest that Mauritius has the lowest level of poverty at roughly 1 percent, followed by Egypt (2 percent), Morocco (2.5 percent), and Tunisia (2.6 percent). At the other end of the spectrum, a remarkable 88.5 percent of Tanzanians are estimated to live below the international poverty line, as do 83.7 percent of Liberians and 81.3 percent of Burundians.

¹ Last accessed 22 July 2009.

² If estimates are available for multiple years, we use the estimate from the earlier year. For instance, if estimates are available for 1999 and 2001, we use the 1999 figure to calculate the Index for the year 2000.

In terms of inequality in 2007, the average estimated Gini index across countries in the region is 44.4 (45.0 in sub-Saharan Africa), ranging from a low of 29.8 in Ethiopia to a high of 64.3 in the Comoros. By comparison, the African average is slightly above the Gini index for the United States, which was 41 in 2000, and well above the Gini indexes for the United Kingdom (36 in 1999), France (33 in 1995), and Japan and Sweden (both 25, measured in 1993 and 2000, respectively).³ Brazil is often cited among countries with especially high rates of inequality. In Africa, Brazil's Gini index of 57 (2005) is exceeded by the Comoros (64.3), Botswana (61.0), Namibia (60.0), Angola (58.6), and South Africa (57.8). For further discussion on income inequality, readers may refer to Zekarias Hussein's essay in the 2008 Ibrahim Index, "Income Inequality in sub-Saharan Africa," *Strengthening African Governance: Ibrahim Index of African Governance Results and Rankings 2008*, 213–217.

Several additional points should be noted about these data. First, given that they are now adjusted for purchasing power differences, as well as for the new \$1.25 per person per day poverty line (rather than \$1.00), figures on poverty at the international poverty line will naturally differ from estimates used in previous editions of the Index of African Governance (the 2007 and 2008 Ibrahim Indexes).

Second, as the table below suggests, there are several reasons to question the reliability and validity of available estimates for some countries, even those given by "standard" sources such as those used here. For one, the same estimates are sometimes given by different sources for different years. For instance, three different standard sources report 60.96 as the Gini index value for Botswana in 1994, 1995, and 2003. Although we might expect the Gini to remain stable over time, estimates like these raise obvious concerns. In addition, there is considerable variation over time in estimates for similar years for the same country. For instance, the World Development Indicators 2009 report Gini index values in Zambia of 53.44 in 1998, 42.08 in 2003, and 50.74 in 2004. The large change between 2003 and 2004 in particular suggests that there may be problems with these estimates (e.g., different samples). The quality of estimates is difficult to judge because the sources of estimates are not always clear. For obvious reasons, standard data sets and compilations do not generally list country-by-country and year-by-year the surveys used to arrive at each estimate.

Similar concerns have been noted by other scholars. For instance, a review of the World Bank's research noted in 2006 that: "Too little has been done to build on the early success of the Living Standards Measurement Surveys to help build internationally comparable data on such central topics as poverty or mortality. Without improvements here, there is a long term threat to the Bank's (and the world's) ability to monitor the income and health dimensions of world poverty."⁴ Given such concerns about comparability, we are particularly careful in using estimates from multiple sources for each of the three indicators of poverty and inequality.

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 the World Bank, are especially useful resources for further study.⁵ 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.

³ Figures are from the World Development Indicators 2008 (last accessed 11 August 2008).

⁴ Abhijit Banerjee, Angus Deaton, Nora Lustig, and Ken Rogoff, with Edward Hsu, "An Evaluation of World Bank Research, 1998–2005," (24 September 2006), 6, available at http://siteresources.worldbank.org/DEC/Resources/84797-1109362238001/726454-1164121166494/RESEARCH-EVALUATION-2006-Main-Report.pdf (last accessed 15 September 2009).

⁵ A library of PRSPs by country is available on the IMF website at www.imf.org/external/NP/prsp/prsp.asp.

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 estimates given in bold are those included in the 2009 Index of African Governance. For each year of the 2009 Index (2000, 2002, 2005, 2006, and 2007), we use the best closest year's estimate. (If there are multiple such estimates, we use the earlier year's estimate.) In general, only estimates from the previous decade, 1998 to 2009, are used in the Index, unless more recent figures are unavailable. However, given scarce statistics for some countries, we make several exceptions to this rule as shown in the table below.

Our research on each country shows that estimates may vary significantly from source to source, including standard international sources. This variation is suggested in the table below. Readers might also refer to the table on poverty in the 2008 Ibrahim Index of African Governance, which provided additional detail on variation across standard international sources. Further research is needed in order to understand and explain these differences. 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, figures reported here should be used with care. We have made every effort to use the most recent, comparable estimates from standard international data compilations: the World Bank's World Development Indicators 2009 (WDI) and the OECD and African Development Bank's *African Economic Outlook* 2009 (AEO).⁶ We also consult the African Development Bank's new *African Statistical Yearbook* 2009 (ASY) for data on inequality. Both the AEO and the ASY report only the latest figures available. Thus, AEO 2008 is used occasionally to supplement AEO 2009 figures. In addition, both AEO and ASY report poverty rates only at the \$1.00 per person per day rate, so they are not used for this indicator. The ASY also does not include figures on poverty at national poverty lines.

If no suitable estimate is available from either the WDI or the AEO, we report estimates from other sources, including data collected through our in-country research and through desk studies on each country. We also consulted the UNDP's latest *Human Development Report* (2007/08) for selected countries. (The abbreviation UNDP is used.)

Notes about particular estimates are included below in the footnotes.

⁶ WDI 2009 was last accessed on 4 June 2009. WDI data are generally based on World Bank staff estimates based on data obtained by government offices or World Bank country departments. Specifically, data on poverty using the national poverty line "World Bank staff estimates based on the World Bank's country poverty assessments;" data on poverty at \$1.25 per day are "based on nationally representative primary household surveys conducted by national statistical offices or by private agencies under the supervision of government or international agencies and obtained from government statistical offices and World Bank Group country departments;" and Gini values are "World Bank staff estimates based on primary household survey data obtained from government statistical agencies and World Bank country departments." AEO 2009 was published on 11 May 2009. The AEO 2009 reports that its figures are based on data from domestic authorities and the World Bank (Povcal, 2009), the World Development Indicators, and Demographic and Health Surveys (DHS), March 2009. *PovcalNet* is an online poverty analysis tool available at http://go.worldbank.org/NT2A1XU WP0. The MEASURE DHS project is implemented by Macro International, Inc. (see http://www.measuredhs.com/start.cfm).

	Poverty: Pop F	ulation Below the National Poverty Line (%) ⁷	Poverty: Po than \$1.25 p	pulation Earning Less per Person per Day (%)	Inequality: Gini index		
	Estimate(s)	Source(s)	Estimate(s)	Source(s)	Estimate(s)	Source(s)	
Algeria	22.6 (1995); 15.0 (2000)	WDI 2009; AEO 2009	6.79 (1995)	WDI 2009	35.33 (1995); 35.33 (2000)	AEO 2009; ASY 2009	
Angola	68.0 (2001)	AEO 2009 (no figure in WDI 2009)	54.31 (2000)	WDI 2009	58.64 (2000); 62.0 (2000-01)	WDI 2009/ AEO 2009/ASY 2009; Angola and UNDP 2005 ⁸	
Benin	29.023 (1999); 29.6 (2000), 28.5 (2002); 46.4 (2003); 36.8 (2006)	WDI 2009; IMF 2008; AEO 2009; IMF 2008°	47.33 (2003)	WDI 2009	38.62 (2003)	WDI 2009/AEO 2009/ASY 2009	
Botswana	30.3 (1994)	AEO 2009 (no figure in WDI 2009) ¹⁰	31.23 (1994)	WDI 2009	60.96 (1994); 60.96 (1995); 62.6 (2002/03); 60.96 (2003)	AEO 2009; WDI 2009; Central Statistics Office; ASY 2009 ¹¹	
Burkina Faso	54.6 (1998); 46.4 (2003)	WDI 2009; WDI 2009/ AEO 2009/Institut National de la Statistique et de la Démographie 2003 ¹²	70.03 (1998), 56.54 (2003)	WDI 2009 ¹³	46.85 (1998); 39.6 (2003); 50.6 (2003)	WDI 2009; WDI 2009/AEO 2009/ASY 2009; Ministère de l'Economie et de Développement 2004 ¹⁴	

7 AEO 2008 defines this line as two-thirds of average consumption. This line may differ from nationally defined poverty lines.

- 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)." See Government of Angola and UNDP, *Angola: Millennium Goals Report Summary* (Luanda, 2005), 8.
- 9 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 only the most recent year's estimate, which is also roughly mid-range 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 (2008, originally published April 2007 by Republic of Benin), 19–20, 25. Estimates for 2006 are based on provisional and partial results from the first round of 2006 *Enquête modulaire intégrée sur les conditions de vie des ménages* (EMICOV). Additional higher estimates were provided to us 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 estimates reported above.
- 10 More recent figures are available from the Central Statistics Office, based on the "Household Income and Expenditure Survey 2002/03" (HIES), the most recent survey completed as of early 2009. However, we were unable to obtain the percentage of the population below the national poverty line. Central Statistics Office, "Household Income and Expenditure Survey 2002/2003" (Gaborone, 2004), 25, estimates that about 20.34 percent lived below the \$1 per day line in 2003.
- 11 The 2002/03 figure is from Central Statistics Office, "Household Income and Expenditure Survey 2002/2003," (Gaborone, 2004), 21. Estimates are based on the 2002/03 HIES, looking at disposable cash income for households. The 1992/93 HIES estimate is 63.8.
- 12 Institut National de la Statistique et de la Démographie (INSD), "Burkina Faso—La Pauvreté en 2003" (Ouagadougou, November 2003), 21.
- 13 An additional local estimate of 90.96 percent (not PPP) was provided to our researcher by Adama Ouattara, Direction Générale de la Promotion de l'Economie Rurale, 25 February 2009. The estimate is based on data from the INSD's l'Enquête Burkinabé sur les Conditions de Vie des Ménages (EBCVM), conducted in April–May 2003. The government does not use this estimate.
- 14 Ministère de l'Economie et de Développement, "Cadre Stratégique de Lutte contre la Pauvreté" (Ouagadougou, July 2004), 22, based on 2003 household survey data. Earlier estimate for 1994 and 1998 are 56.0 and 53.0, respectively.

Burundi	68 (1998); 36.2 (2006)	WDI 2009; AEO 2009 ¹⁵	86.43 (1998), 81.32 (2006)	WDI 2009	42.39 (1998); 33.27 (2006); 38.9 (2007), 42.4 (2008)	WDI 2009; WDI 2009/AEO 2009/ ASY 2009; Institut de Statistiques et d'Etudes Economiques du Burundi ¹⁶
Cameroon	40.2 (2001); 39.9 (2007)	WDI 2009/AEO 2009/ National Institute of Statistics; National Institute of Statistics ¹⁷	32.81 (2001)	WDI 2009	44.56 (2001); 40.4 (2001), 39.0 (2007)	WDI 2009/AEO 2009/ASY 2009; National Institute of Statistics ¹⁸
Cape Verde	36.7 (2002)	AEO 2009 (no estimate in WDI 2009)	20.56 (2001)	WDI 2009	50.52 (2001); 57.0 (2001-02)	WDI 2009/AEO 2009/ASY 2009; Instituto Nacional de Estatistica ¹⁹
Central African Republic	50.2 (2003); 67.2 (2003)	AEO 2009; Ministry of Economy, Planning, and International Cooperation (MINPLAN) 2007 ²⁰ (no estimate in <i>WDI</i> 2009)	62.43 (2003)	WDI 2009	43.57 (2003); 42.00 (2003)	WDI 2009/AEO 2009/ASY 2009; MINPLAN 2007
Chad	64.0 (1996); 64.0 (2003)	WDI 2009; AEO 2009 ²¹	61.94 (2003)	WDI 2009	39.78 (2003)	WDI 2009/AEO 2009/ASY 2009
Comoros	44.8 (2004)	IMF 2006/Direction Nationale de la Statistique- Commissariat Général au Plan (no estimate in WDI 2009 or AEO 2009) ²²	46.11 (2004)	WDI 2009	64.3 (2004)	WDI 2009/AEO 2009/ASY 2009/ IMF 2006 ²³
Congo (Brazzaville)	50.7 (2005)	AEO 2009 (no estimate in WDI 2009)	54.1 (2005)	WDI 2009	47.32 (2005)	WDI 2009/AEO 2009/ASY 2009

- 15 Republic of Burundi, "Poverty Reduction Strategy Paper–PRSP" (Bujumbura, September 2006), 13–14, estimates poverty at 81percent based on a 1998 survey, noting that data from the 2006 CWIQ survey were not yet analyzed. The UNDP and Ministère de la Planification du Développement et de la Reconstruction (MPDR), *Rapport National du Développement Humain au Burundi* 2003 gives the incidence of poverty in the rural population at 35.1 percent in 1990, up to 68.8 percent in 1999, and 32.4 percent up to 66.6 percent in Bujumbura over the same period (p. 16).
- 16 Figures for 2007 and 2008 are from Jean Claude Sibomana, Conseiller, Institut de Statistiques et d'Etudes Economiques du Burundi (ISTEEBU) (17 March 2009). ISTEEBU estimates are based on data from the 2006 Questionnaire Unifiée des Indicateurs de Bien-être (QUIBB).
- 17 National Institute of Statistics, "ECAM 3–Troisième enquête Camerounaise auprès des ménages. Principaux Résultats" (Yaoundé, June 2008) (folio), and National Institute of Statistics, *Tendances, profil et déterminants de la pauvreté au Cameroun entre* 2001–2007 (Yaoundé, 2008), 17–24.
- 18 National Institute of Statistics, Tendances, 21.
- 19 Based on the Household Budget Survey implemented in October 2001–October 2002, as provided to us by Francisco Rodrigues, Director of Methods and Information Management, National Institute of Statistics. As of our research in 2008, estimates based on 2006 data were not yet official.
- 20 Ministry of Economy, Planning and International Cooperation (MINPLAN), "Poverty Reduction Strategy Paper–PRSP 2008–2010. Analytical Summary" (Bangui, September 2007), 3.
- 21 The fact that the same percentage is recorded in 1996 and 2003 raises questions about these figures, as do significantly different percentages reported by other sources: 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], 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," [2002], 7).
- 22 IMF, "Union of the Comoros: Interim Poverty Reduction Strategy Paper," IMF Country Report No. 06/191 (2006; originally published October 2005 by Union of the Comoros), 21. Based on information from our researcher at the Direction National de la Statistique (DNS), who reported that this figure was based on the Enquête Intégrale auprès des Ménages.
- 23 Our 2008 researcher at DNS reported similar figures, but for different years: for 2005, 44.3, based on *Enquête Budget Consommation auprès des Ménages*, and for 2006, 0.557, based on *Enquête Intégrale auprès des Ménages*.

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Congo, Democratic Republic	71.3 (2005)	AEO 2009 (no estimate in WDI 2009)	59.22 (2006)	WDI 2009	44.43 (2006)	WDI 2009/AEO 2009/ASY 2009
Cote d'Ivoire	33.6 (2000); 38.4 (2002); 48.9 (2008)	République de Côte d'Ivoire 2009; AEO 2008/ Côte d'Ivoire 2009; AEO 2009/ Côte d'Ivoire 2009 (no estimate in WDI 2009) ²⁴	24.06 (1998); 23.34 (2002)	WDI 2009	43.75 (1998); 48.39 (2002)	WDI 2009; WDI 2009/AEO 2009/ASY 2009
Djibouti	42.1 (2002)	AEO 2009 (no estimate in WDI 2009)	18.84 (2002)	WDI 2009	39.96 (2002)	WDI 2009/AEO 2009/ASY 2009
Egypt	22.9 (1996), 16.7 (2000); 19.6 (2005)	WDI 2009; AEO 2009	2 (2000), 2 (2005)	WDI 2009	32.76 (2000); 32.14 (2005)	WDI 2009; WDI 2009/AE0 2009/ASY 2009
Equatorial Guinea	76.8 (2006)	AEO 2009 (no estimate in WDI 2009)		No estimate available.		No estimate available.
Eritrea	53.0 (1993–94)	WDI 2009/AEO 2008		No estimate available.		No estimate available.
Ethiopia	45.5 (1996), 44.2 (2000); 38.7 (2004/05)	WDI 2009; AEO 2008/ Ministry of Finance and Economic Development 2007 ²⁵	55.58 (2000), 39.04 (2005)	WDI 2009	30 (2000); 44.0 (2004/05); 29.76 (2005)	WDI 2009; Ministry of Finance and Economic Development 2007; WDI 2009/AEO 2008/ASY 2009
Gabon	33.0 (2005)	AEO 2009 (no estimate in WDI 2009)	4.84 (2005)	WDI 2009	41.45 (2005)	WDI 2009/AEO 2009/ASY 2009
Gambia	57.6 (1998); 61.3 (2003)	WDI 2009; WDI 2009/ AEO 2009	66.68 (1998), 34.34 (2003)	WDI 2009	50.23 (1998); 47.28 (2003)	WDI 2009; WDI 2009/AEO 2009/ASY 2009
Ghana	39.5 (1999); 28.5 (2006)	WDI 2009; WDI 2009/ AEO 2009/Ghana Statistical Service ²⁶	39.12 (1998), 29.99 (2006)	WDI 2009	40.75 (1998); 42.76 (2006)	WDI 2009; WDI 2009/AEO 2009/ASY 2009
Guinea	40.0 (1994); 49.2 (2002/03); 53.0 (2007)	WDI 2009; Ministère de l'Economie, des Finances et du Plan 2007; AEO 2009 ²⁷	70.13 (2003)	WDI 2009	40.3 (2002/03); 43.34 (2003)	Ministère de l'Economie, des Finances et du Plan 2007; WDI 2009/AEO 2009/ASY 2009
Guinea-Bissau	65.7 (2002)	WDI 2009/World Bank 2006; AEO 2009 ²⁸	48.83 (2002)	WDI 2009	35.52 (2002) ; 36 (2002)	WDI 2009/AEO 2009/ASY 2009; World Bank 2006

24 République de Côte d'Ivoire, "Document de Stratégie de Réduction de la Pauvreté (DSRP)" (Abidjan, January 2009), 5-6.

25 The source provided by our researcher is Ministry of Finance and Economic Development, Ethiopia: Building on Progress: A Plan for Accelerated and Sustained Development to End Poverty (PASDEP). Annual Progress Report 2005/06 (Addis Ababa, June 2007), 6. (Hard copy unavailable.)

26 Ghana Statistical Service, *Patterns and Trends of Poverty in Ghana 1991–2006* (April 2007), tables A1.1 and A1.2, as reported in Government of Ghana and UNDP-Ghana, *Ghana Human Development Report 2007* (Accra, 2007), 25.

27 Ministère de l'Economie, des Finances et du Plan, Document de Stratégie de Réduction de la Pauvreté: DRSP (2007–2010) (Conakry, August 2007), 13 and 40. Estimates for 2002/03 are based on the Enquête de Base pour l'Evaluation de la Pauvreté (2002–03).

28 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., 26 May 2006), 25.

Kenya	52 (1997); 45.9 (2005– 06)	WDI 2009; AEO 2009/ Kenya National Bureau of Statistics 2007 ²⁹	19.57 (1997), 19.72 (2005)	WDI 2009	42.51 (1997); 47.68 (2005)	WDI 2009; WDI 2009/AEO 2009/ ASY 2009
Lesotho	68.0 (1999); 56.5 (2002/03); 64.0 (2007)	WDI 2009; Ministry of Finance and Development Planning; AEO 2009 ³⁰	43.41 (2003)	WDI 2009	52.5 (2003)	Ministry of Finance and Development Planning/WDI 2009/AEO 2009/ ASY 2009 ³¹
Liberia	76.2 (2002); 64.0 (2007); 63.8 (2007)	AEO 2008; AEO 2009; Liberia Institute of Statistics and Geo- Information Services (LISGIS) (no estimate in WDI 2009) ³²	83.65 (2007)	WDI 2009	52.56 (2007)	WDI 2009/AEO 2009/ASY 2009
Libya	14.0 (2000–05)	AEO 2009 (no estimate in WDI 2009)		No estimate available.		No estimate available.
Madagascar	71.3 (1999); 67.5 (2007)	WDI 2009; AEO 2009	82.32 (1999), 76.34 (2001), 67.83 (2005)	WDI 2009	41.81 (1999), 47.47 (2001); 47.24 (2005)	WDI 2009; WDI 2009/AEO 2009/ ASY 2009
Malawi	65.3 (1998); 54.2 (2005); 45.0 (2006)	WDI 2009; National Statistical Office 2005; AEO 2009 ³³	83.07 (1998), 73.86 (2004)	WDI 2009	50.31 (1998); 39.02 (2004); 39 (2005)	WDI 2009; WDI 2009/AEO 2009/ ASY 2009; National Statistical Office 2005
Mali	63.8 (1998); 47.5 (2005); 64.4 or 47.4 (2006)	WDI 2009; AEO 2009; Ministère de l'Economie 2007 ³⁴	61.18 (2001), 51.43 (2006)	WDI 2009	40.01 (2001); 38.99 (2006); 38.8 (2006)	WDI 2009; WDI 2009/AEO 2009/ ASY 2009; Ministère de l'Economie 2007
Mauritania	46.3 (2000); 46.7 (2004)	WDI 2009/AEO 2009; Office National de la Statistique 2008 ³⁵	21.16 (2000)	WDI 2009	39.04 (2000)	WDI 2009/AEO 2009/ASY 2009
Mauritius	7.8 (2001/02)	Central Statistics Office 2006 ³⁶	1 (2001/02)	Central Statistics Office 2006 ³⁷	38.9 (2006)	AEO 2009/ASY 2009

²⁹ The estimate reported from the Kenya National Bureau of Statistics, *Basic Report on Well-Being in Kenya* (Nairobi, 2007), 55, is 46 percent. Estimate is based on the Kenya Integrated Household Budget Survey 2005/06. (Hard copy unavailable.)

34 For 2006: Ministère de l'Economie, de l'Industrie et du Commerce, et al., Enquête Légère Intégrée auprès des Ménages (ELIM) 2006. Volume 2: Tendances et Déterminants de la Pauvreté au Mali (2001–2006) (Bamako, 2007), 10–11. Both estimates are based on the ELIM data; the first uses a method based on calorific energy and the second on costs of basic needs. Estimates for 2001 using the same methods are 68.3 and 55.6, respectively.

³⁰ The 2002/03 figure is reportedly based on the 2002/03 Household Budget Survey, as given in "2002/03 and 1994/95 Household Budget Survey - Analytical Report," Volume 1, November 2006. (Hard copy unavailable.)

³¹ The Ministry of Finance and Development Planning figure is for 2002/03.

³² The AEO 2008 figure 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). The 2007 LISGIS figure is from our researcher at LISGIS, based on the 2007 Core Welfare Indicator Questionnaire (CWIQ). See also Republic of Liberia, "Liberia: Poverty Reduction Strategy Paper," (2007), 26.

³³ National Statistical Office, "Integrated Household Survey" (Zomba, 2005). The latest survey was conducted in 2009, and data will become available in 2010. (Hard copy unavailable.)

³⁵ The figure for 2004 is based on a rate of \$1 per person per day. Office National de la Statistique (ONS), Annuaire Statistique de la Mauritanie 2007 (Nouakchott, October 2008), 48–49.

Central Statistics Office, Ministry of Finance and Economic Development, "Poverty Analysis 2001/02" (Port Louis, October 2006), 7. Note that Mauritius does not have a national poverty line (p. 5). For purposes of analysis, this report uses a relative poverty line, which is "based on the half median household income adjusted for household size and age composition as well as for economies of scale," and "a one-person household was found to be poor if its income resources fell below... Rs 2,804 in 2001/02" (p. 6).

This is a rough estimate. It is based on analysis summarized in Central Statistics Office 2006, which estimates that less than 1 percent live on less than \$1 per person per day and about 1.5 percent on less than \$2 per person per day, both adjusted for PPP. Estimates are based on the 1996/97 and 2001/02 Household Budget Surveys and hold for both survey years (p. 25–26).

Human Development

Morocco	19 (1999); 14.2 (2004)	WDI 2009; AEO 2009	6.76 (1999), 6.25 (2001), 2.5 (2007)	WDI 2009	39.46 (1999), 40.63 (2001); 40.88 (2007)	WDI 2009; WDI 2009/ AEO 2009/ASY 2009
Mozambique	69.4 (1997); 54.1 (2003)	WDI 2009; WDI 2009/ AEO 2009/Direcção Nacional do Plano e Orçamento et al. 2004 ³⁸	81.34 (1997), 74.69 (2003)	WDI 2009	44.49 (1997); 47.11 (2003); 42.0 (2003)	WDI 2009; WDI 2009/AEO 2009/ASY 2009; Government of Mozambique 2007 ³⁹
Namibia	28.0 (2004); 27.8 (2003/04)	AEO 2009 (no estimate in WDI 2009); Central Bureau of Statistics 2008 ⁴⁰		No estimate available.	74.33 (1993); 60.0 (2004); 60.4 (2003/04)	WDI 2009; AEO 2009/ ASY 2009; Central Bureau of Statistics 2006 ⁴¹
Niger	63.0 (1993); 74 (2002), 70 (2004); 62.1 (2005), 59.5 (2007/08)	WDI 2009/AEO 2009; Niger 2007; Institut National de la Statistique (INS) 2009 ⁴²	65.88 (2005)	WDI 2009	41.53 (1994); 43.89 (2005); 43.7 (2005), 36.3 (2007/08)	WDI 2009; WDI 2009/ AEO 2009/ASY 2009; INS 2009
Nigeria	34.1 (1993); 51.6 (2005); 54.4 (2006)	WDI 2009; National Bureau of Statistics 2005; AEO 2009 ⁴³	68.51 (1996), 64.41 (2004)	WDI 2009	46.5 (1996); 42.93 (2004); 48.42 (2005)	WDI 2009; WDI 2009/ AEO 2009/ASY 2009; National Bureau of Statistics 2005
Rwanda	60.3 (2000); 56.9 (2000)	WDI 2009; AEO 2009	76.56 (2000)	WDI 2009	46.68 (2000)	WDI 2009/AEO 200944
São Tomé and Príncipe	53.8 (2001)	AEO 2009 (no estimate in WDI 2009)/Instituto Nacional de Estatística ⁴⁵		No estimate available.	49.0 (2001 est.)	Instituto Nacional de Estatística (no estimate in WDI 2009, AEO 2009, and ASY 2009)
Senegal	33.4 (1992); 53.9 (2001)	WDI 2009; AEO 2009	44.19 (2001), 33.5 (2005)	WDI 2009	41.25 (2001); 39.19 (2005)	WDI 2009; WDI 2009/ AEO 2009
Seychelles		No estimate available. ⁴⁶		No estimate available.	39.1 (2007)	National Statistics Bureau ⁴⁷
Sierra Leone	70.2 (2004); 70.5 (2004), 67.5 (2007)	WDI 2009/AEO 2009; Development Assistance and Coordination Office ⁴⁸	53.37 (2003)	WDI 2009	42.52 (2003)	WDI 2009/AEO 2009/ ASY 2009

- 38 Based on 2002/03 survey (AEO 2009 gives time period as 2002/03). Direcção Nacional do Plano e Orçamento, Ministério de Plano e Finanças, Gabinete de Estudos, Instituto Internacional de Pesquisa em Políticas Alimentares (IFPRI), Universidade de Purdue, "Pobreza e Bem-Estar em Moçambique: Segunda Avaliação Nacional," (March 2004), 44.
- 39 Government of Mozambique, "Plano de Acção para a Redução da Pobreza Absoluto (2006–2009 (PARPA II)," (2 May 2006), 28.
- 40 Central Bureau of Statistics, "A Review of Poverty and Inequality in Namibia," (Windhoek, October 2008), 6, based on 2003/04 survey and the food share ratio approach. (Hard copy unavailable.)
- 41 Central Bureau of Statistics, "Namibia Household Income and Expenditure Survey 2003/2004," (Windhoek, November 2006), 114. (Hard copy unavailable.)
- 42 For 2002 and 2004: République du Niger (under the direction of Théodore Mpatswenumugabo, et al.), Mesure de la Pauvreté Selon la Méthode de Degré de Satisfaction des Besoins Essentiels (DSBE): Expérience du Niger (Niamey, 2007), 90. The estimate of 63 percent for 1989– 93 is also given in the same report. For 2005: Institut National de la Statistique (INS), Tendance Profil et Déterminant de la Pauvreté au Niger: 2005–2008 (Niamey, 2009), 21 and 25, based on the 2005 Questionnaire Unifiée sur les Indicateurs de Base du Bien-être (QUIBB) and 2007/09 Enquête Nationale sur le Budget et la Consommation des Ménages (ENBC).
- 43 The 2005 figure is based on a poverty rate of less than \$1 per person per day; Federal Republic of Nigeria, *Poverty Profile for Nigeria* (Abuja, 2005), xvi. (Hard copy unavailable.)
- 44 ASY 2009 gives the same figure, but lists the year as 2006.
- 45 Estimate is provided by Helder Salvaterra, Instituto Nacional de Estatística, based on Profil de Pauvrete en RDSTP (2001).
- 46 The National Statistics Bureau confirms that no estimate is available.
- 47 Preliminary 2007 Household Budget Survey, National Statistics Bureau.
- 48 Figures for 2004 and 2007 were provided to our 2009 country researcher by Eugene Sawyerr, Poverty Data Analyst, Development Assistance and Coordination Office (DACO), 24 February 2009. The 2007 figure is based on the 2007 Core Welfare Indicator Questionnaire (CWIQ) Survey.

Somalia		No estimate available.		No estimate available.		No estimate available.
South Africa	47.99 (2005); 43.2 (2006)	Netshitinzhe and Chikane 2005; AEO 2009 (no estimate in WDI 2009) ⁴⁹	26.2 (2000)	WDI 2009	57.77 (2000); 67-80 (2005/06)	WDI 2009/AEO 2009/ ASY 2009; Statistics South Africa 2006 ⁵⁰
Sudan		No estimate available.		No estimate available.		No estimate available.
Swaziland	69.2 (2001)	WDI 2009/AEO 2009	62.85 (2001)	WDI 2009	50.68 (2001)	WDI 2009/AEO 2009/ Asy 2009
Tanzania	35.7 (2001)	WDI 2009/Bureau of Statistics ⁵¹	88.52 (2000)	WDI 2009	34.62 (2000) ; 35 (2002)	WDI 2009/AEO 2009/ ASY 2009; Bureau of Statistics
Togo	72.2 (1995); 61.7 (2006)	AEO 2008; AEO 2009/ République Togolaise 2007 ⁵²	38.68 (2006)	WDI 2009	34.41 (2006) ; 33.5 (2006)	WDI 2009/AEO 2009/ ASY 2009; République Togolaise 2007
Tunisia	7.6 (1995); 3.8 (2005)	WDI 2009; AEO 2009	2.55 (2000)	WDI 2009	40.81 (2000)	WDI 2009/AEO 2009/ Asy 2009
Uganda	33.8 (2000), 37.7 (2003); 38.8 (2002/03), 31.1 (2005/06)	WDI 2009; Uganda Bureau of Statistics (UBOS) 2007 ⁵³	60.49 (1999), 57.37 (2002), 51.53 (2005)	WDI 2009	43.07 (1999), 45.77 (2002); 42.8 (2002/03); 42.62 (2005); 40.8 (2005/06)	WDI 2009; UBOS 2007; WDI 2009/AEO 2009/ASY 2009; UBOS 2007
Zambia	72.9 (1998), 68 (2004); 64.0 (2006)	WDI 2009; AEO 2009	55.4 (1998) , 64.6 (2003), 64.29 (2004)	WDI 2009	53.44 (1998) , 42.08 (2003); 50.74 (2004)	WDI 2009; WDI 2009/ AEO 2009/ASY 2009
Zimbabwe	55 (1995); 34.9 (1996); 72 (2004)	UNDP 2008; ⁵⁴ WDI 2009/AEO 2009; ⁵⁵ UNDP 2008			50.1 (1995); 50.12 (2004)	WDI 2009; AEO 2009/ ASY 2009

55 AEO 2009 gives time period as 1995–96.

⁴⁹ Joel Netshitinzhe and Frank Chikane, *Toward a Fifteen Year Review Synthesis Report* (Pretoria, 2008), 17. The poverty line of ZAR322 per month was calculated by Statistics South Africa. For discussion, see Ingrid Woolard and Murray Leibbrandt, *Towards A Poverty Line for South Africa: Background Note* (Cape Town, 2006).

⁵⁰ Estimates for 2005/06 range from 67 to 80 depending on the method of calculation. Gini coefficient values are given as 0.80 based on income; 0.73 based on income plus social security benefits; 0.73 based on disposable income; 0.69 based on expenditure plus taxes; and 0.67 based on expenditure minus taxes. Statistics South Africa, "Measuring Inequality," in *Income and Expenditure of Households:* Analysis of Results (Pretoria, 2006), 31–36.

⁵¹ Based on information provided to our 2009 country researcher by the Bureau of Statistics, based on the Household Budget Survey 2000/01 and the "National Strategy for Growth and Reduction of Poverty."

⁵² République Togolaise, "Stratégie Intérimaire de Réduction de la Pauvreté–Draft Officiel" (Lomé, July 2007), 13–15, based on the 2006 Questionnaire Unifié des Indicateurs de Base du Bien-être (QUIBB).

AEO 2009 reports 31.3 percent for the rural population in 2006. Estimates for the urban and overall population are unavailable. Uganda Bureau of Statistics, 2007 Statistical Abstract (Kampala, June 2007), 16–17.

^{54 &}quot;The 2003 Poverty Assessment Study Survey (PASS II) showed that 72 percent of the population was living below the Total Consumption Poverty Line (TCPL), compared to 55 percent in 1995. ...A similar trend can be observed with regard to the Gini coefficient of inequality, which increased from 0.53 in 1995 to 0.61 in 2003" (UNDP [research team: Dale Doré, Tony Hawkins, Godfrey Kanyenze, Daniel Makina, Daniel Ndlela, Mark Simpson], Comprehensive Economic Recovery in Zimbabwe: A Discussion Document [Harare, 2008], 17–18). The latest PASS was in 2004.
POVERTY RATE USING NATIONAL POVERTY LINE

World Bank's World Development Indicators (WDI) 2009; African Economic Outlook 2009; National Sources; and Other

						ED D	ATA:						
	RAW DATA:			Ranke	d			Scaled Overall 0-100					
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007	
Angola	68.0	68.0	68.0	68.0	37	44	46	46	12.1	12.1	12.1	12.1	
Benin	36.8	36.8	36.8	36.8	14	14	14	14	54.8	54.8	54.8	54.8	
Botswana	30.3	30.3	30.3	30.3	8	9	9	9	63.7	63.7	63.7	63.7	
Burkina Faso	54.6	46.4	46.4	46.4	29	23	22	22	30.4	41.6	41.6	41.6	
Burundi	68.0	36.2	36.2	36.2	37	12	12	12	12.1	55.6	55.6	55.6	
Cameroon	40.2	39.9	39.9	39.9	16	18	17	17	50.1	50.5	50.5	50.5	
Cape Verde	36.7	36.7	36.7	36.7	13	13	13	13	54.9	54.9	54.9	54.9	
Central African Republic	67.2	67.2	67.2	67.2	36	42	43	43	13.2	13.2	13.2	13.2	
Chad	64.0	64.0	64.0	64.0	33	39	39	39	17.5	17.5	17.5	17.5	
Comoros	44.8	44.8	44.8	44.8	19	20	19	19	43.8	43.8	43.8	43.8	
Congo (Brazzaville)	50.7	50.7	50.7	50.7	23	26	25	25	35.8	35.8	35.8	35.8	
Congo, Democratic Rep.	71.3	71.3	71.3	71.3	43	48	48	48	7.5	7.5	7.5	7.5	
Cote d'Ivoire	33.6	38.4	48.9	48.9	10	16	24	24	59.2	52.6	38.2	38.2	
Djibouti	42.1	42.1	42.1	42.1	17	19	18	18	47.5	47.5	47.5	47.5	
Equatorial Guinea	76.8	76.8	76.8	76.8	50	50	50	50	0.0	0.0	0.0	0.0	
Eritrea	53.0	53.0	53.0	53.0	25	27	26	26	32.6	32.6	32.6	32.6	
Ethiopia	44.2	38.7	38.7	38.7	18	17	16	16	44.7	52.2	52.2	52.2	
Gabon	33.0	33.0	33.0	33.0	9	10	10	10	60.0	60.0	60.0	60.0	
Gambia	57.6	61.3	61.3	61.3	30	34	34	34	26.3	21.2	21.2	21.2	
Ghana	39.5	28.5	28.5	28.5	15	8	8	8	51.1	66.2	66.2	66.2	
Guinea	49.2	49.2	53.0	53.0	22	25	26	26	37.8	37.8	32.6	32.6	
Guinea-Bissau	65.7	65.7	65.7	65.7	35	41	42	42	15.2	15.2	15.2	15.2	
Kenya	52.0	45.9	45.9	45.9	24	21	20	20	34.0	42.3	42.3	42.3	
Lesotho	68.0	64.0	64.0	64.0	37	39	39	39	12.1	17.5	17.5	17.5	
Liberia	76.2	63.8	63.8	63.8	49	37	37	37	0.8	17.8	17.8	17.8	
Madagascar	71.3	67.5	67.5	67.5	43	43	44	44	7.5	12.7	12.7	12.7	
Malawi	65.3	54.2	54.2	54.2	34	31	31	31	15.8	31.0	31.0	31.0	
Mali	63.8	63.8	63.8	63.8	32	37	37	37	17.8	17.8	17.8	17.8	
Mauritania	46.3	46.3	46.3	46.3	20	22	21	21	41.8	41.8	41.8	41.8	
Mauritius	7.8	7.8	7.8	7.8	2	2	2	2	94.5	94.5	94.5	94.5	
Mozambique	69.4	54.1	54.1	54.1	41	30	30	30	10.1	31.1	31.1	31.1	
Namibia	27.8	27.8	27.8	27.8	7	7	7	7	67.1	67.1	67.1	67.1	
Niger	74.0	62.1	62.1	62.1	48	36	36	36	3.8	20.1	20.1	20.1	
Nigeria	54.4	54.4	54.4	54.4	28	32	32	32	30.7	30.7	30.7	30.7	
Rwanda	60.3	60.3	60.3	60.3	31	33	33	33	22.6	22.6	22.6	22.6	
Sao Tome and Principe	53.8	53.8	53.8	53.8	26	28	28	28	31.5	31.5	31.5	31.5	
Senegal	53.9	53.9	53.9	53.9	27	29	29	29	31.4	31.4	31.4	31.4	
Seychelles													
Sierra Leone	70.2	70.2	67.5	67.5	42	47	44	44	9.0	9.0	12.7	12.7	
Somalia													
South Africa	48.0	48.0	48.0	48.0	21	24	23	23	39.5	39.5	39.5	39.5	
Sudan													
Swaziland	69.2	69.2	69.2	69.2	40	46	47	47	10.4	10.4	10.4	10.4	
Tanzania	35.7	35.7	35.7	35.7	12	11	11	11	56.3	56.3	56.3	56.3	
Togo	72.2	61.7	61.7	61.7	46	35	35	35	6.3	20.7	20.7	20.7	
Uganda	33.8	37.7	37.7	37.7	11	15	15	15	58.9	53.6	53.6	53.6	
Zambia	72.9	68.0	64.0	64.0	47	44	39	39	5.3	12.1	17.5	17.5	
Zimbabwe	72.0	72.0	72.0	72.0	45	49	49	49	6.6	6.6	6.6	6.6	
Algeria	15.0	15.0	15.0	15.0	4	5	5	5	84.7	84.7	84.7	84.7	
Egypt	16.7	19.6	19.6	19.6	5	6	6	6	82.3	78.4	78.4	78.4	
Libya	14.0	14.0	14.0	14.0	3	3	3	3	86.0	86.0	86.0	86.0	
Morocco	19.0	14.2	14.2	14.2	6	4	4	4	79.2	85.8	85.8	85.8	
Tunisia	7.6	3.8	3.8	3.8	1	1	1	1	94.8	100.0	100.0	100.0	

POVERTY RATE AT \$1.25 PER PERSON PER DAY

World Bank's World Development Indicators (WDI) 2009

						ED D	ATA:						
	RAW DATA:			Ranke	d			Scaled Overall 0-100					
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007	
Angola	54.3	54.3	54.3	54.3	24	28	28	28	39.1	39.1	39.1	39.1	
Benin	47.3	47.3	47.3	47.3	20	22	22	22	47.1	47.1	47.1	47.1	
Botswana	31.2	31.2	31.2	31.2	13	14	14	14	65.5	65.5	65.5	65.5	
Burkina Faso	70.0	56.5	56.5	56.5	36	29	29	29	21.1	36.5	36.5	36.5	
Burundi	86.4	81.3	81.3	81.3	43	42	42	42	2.4	8.2	8.2	8.2	
Cameroon	32.8	32.8	32.8	32.8	14	15	15	15	63.7	63.7	63.7	63.7	
Cape Verde	20.6	20.6	20.6	20.6	9	9	9	9	77.7	77.7	77.7	77.7	
Central African Republic	62.4	62.4	62.4	62.4	31	32	32	32	29.8	29.8	29.8	29.8	
Chad	61.9	61.9	61.9	61.9	30	31	31	31	30.4	30.4	30.4	30.4	
Comoros	46.1	46.1	46.1	46.1	19	21	21	21	48.5	48.5	48.5	48.5	
Congo (Brazzaville)	54.1	54.1	54.1	54.1	23	27	27	27	39.3	39.3	39.3	39.3	
Congo, Democratic Rep.	59.2	59.2	59.2	59.2	27	30	30	30	33.5	33.5	33.5	33.5	
Cote d'Ivoire	24.1	23.3	23.3	23.3	11	11	11	11	73.7	74.5	74.5	74.5	
Djibouti	18.8	18.8	18.8	18.8	7	7	7	7	79.6	79.6	79.6	79.6	
Equatorial Guinea													
Eritrea													
Ethiopia	55.6	39.0	39.0	39.0	26	19	19	19	37.6	56.5	56.5	56.5	
Gabon	4.8	4.8	4.8	4.8	4	5	5	5	95.6	95.6	95.6	95.6	
Gambia	66.7	34.3	34.3	34.3	34	17	17	17	25.0	61.9	61.9	61.9	
Ghana	39.1	30.0	30.0	30.0	16	13	13	13	56.4	66.9	66.9	66.9	
Guinea	70.1	70.1	70.1	70.1	37	38	38	38	21.0	21.0	21.0	21.0	
Guinea-Bissau	48.8	48.8	48.8	48.8	21	23	23	23	45.3	45.3	45.3	45.3	
Kenya	19.6	19.7	19.7	19.7	8	8	8	8	78.8	78.6	78.6	78.6	
Lesotho	43.4	43.4	43.4	43.4	17	20	20	20	51.5	51.5	51.5	51.5	
Liberia	83.7	83.7	83.7	83.7	42	43	43	43	5.6	5.6	5.6	5.6	
Madagascar	82.3	67.8	67.8	67.8	40	37	37	37	7.1	23.6	23.6	23.6	
Malawi	83.1	73.9	73.9	73.9	41	39	39	39	6.2	16.8	16.8	16.8	
Mali	61.2	51.4	51.4	51.4	29	24	24	24	31.2	42.4	42.4	42.4	
Mauritania	21.2	21.2	21.2	21.2	10	10	10	10	77.0	77.0	77.0	77.0	
Mauritius	1.0	1.0	1.0	1.0	1	1	1	1	100.0	100.0	100.0	100.0	
Mozambique	81.3	74.7	74.7	74.7	39	40	40	40	8.2	15.8	15.8	15.8	
Namibia													
Niger	65.9	65.9	65.9	65.9	33	36	36	36	25.9	25.9	25.9	25.9	
Nigeria	68.5	64.4	64.4	64.4	35	35	35	35	22.9	27.5	27.5	27.5	
Rwanda	76.6	76.6	76.6	76.6	38	41	41	41	13.7	13.7	13.7	13.7	
Sao Tome and Principe													
Senegal	44.2	33.5	33.5	33.5	18	16	16	16	50.7	62.9	62.9	62.9	
Seychelles													
Sierra Leone	53.4	53.4	53.4	53.4	22	26	26	26	40.2	40.2	40.2	40.2	
Somalia													
South Africa	26.2	26.2	26.2	26.2	12	12	12	12	71.2	71.2	71.2	71.2	
Sudan													
Swaziland	62.9	62.9	62.9	62.9	32	33	33	33	29.3	29.3	29.3	29.3	
Tanzania	88.5	88.5	88.5	88.5	44	44	44	44	0.0	0.0	0.0	0.0	
Togo	38.7	38.7	38.7	38.7	15	18	18	18	56.9	56.9	56.9	56.9	
Uganda	60.5	51.5	51.5	51.5	28	25	25	25	32.0	42.3	42.3	42.3	
Zambia	55.4	64.3	64.3	64.3	25	34	34	34	37.8	27.7	27.7	27.7	
Zimbabwe												_	
Algeria	6.8	6.8	6.8	6.8	6	6	6	6	93.4	93.4	93.4	93.4	
Egypt	2.0	2.0	2.0	2.0	2	2	2	2	98.9	98.9	98.9	98.9	
Libya													
Morocco	6.8	2.5	2.5	2.5	5	3	3	3	93.4	98.3	98.3	98.3	
Tunisia	2.6	2.6	2.6	2.6	3	4	4	4	98.2	98.2	98.2	98.2	

INEQUALITY (GINI INDEX)

World Bank's World Development Indicators (WDI) 2009; African Economic Outlook 2009; National Sources; and Other

	SCAL	ED D	ATA:									
	RAW DATA:			Ranke	d			Scaled Overall 0-100				
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007
Angola	58.6	58.6	58.6	58.6	45	45	45	45	16.4	16.4	16.4	16.4
Benin	38.6	38.6	38.6	38.6	7	8	8	8	74.3	74.3	74.3	74.3
Botswana	61.0	61.0	61.0	61.0	47	47	47	47	9.7	9.7	9.7	9.7
Burkina Faso	46.9	39.6	39.6	39.6	33	15	15	15	50.5	71.5	71.5	71.5
Burundi	42.4	33.3	33.3	33.3	20	3	3	3	63.4	89.8	89.8	89.8
Cameroon	44.6	44.6	44.6	44.6	30	29	29	29	57.2	57.2	57.2	57.2
Cape Verde	50.5	50.5	50.5	50.5	39	39	39	39	39.9	39.9	39.9	39.9
Central African Republic	43.6	43.6	43.6	43.6	25	26	26	26	60.0	60.0	60.0	60.0
Chad	39.8	39.8	39.8	39.8	12	16	16	16	71.0	71.0	71.0	71.0
Comoros	64.3	64.3	64.3	64.3	48	48	48	48	0.0	0.0	0.0	0.0
Congo (Brazzaville)	47.3	47.3	47.3	47.3	34	34	34	34	49.2	49.2	49.2	49.2
Congo, Democratic Rep.	44.4	44.4	44.4	44.4	28	28	28	28	57.5	57.5	57.5	57.5
Cote d'Ivoire	43.8	48.4	48.4	48.4	26	36	36	36	59.5	46.1	46.1	46.1
Djibouti	40.0	40.0	40.0	40.0	13	17	17	17	70.5	70.5	70.5	70.5
Equatorial Guinea												
Eritrea												
Ethiopia	30.0	29.8	29.8	29.8	1	1	1	1	99.3	100.0	100.0	100.0
Gabon	41.5	41.5	41.5	41.5	18	20	20	20	66.2	66.2	66.2	66.2
Gambia	50.2	47.3	47.3	47.3	37	33	33	33	40.7	49.3	49.3	49.3
Ghana	40.8	42.8	42.8	42.8	15	23	23	23	68.2	62.4	62.4	62.4
Guinea	43.3	43.3	43.3	43.3	24	25	25	25	60.7	60.7	60.7	60.7
Guinea-Bissau	35.5	35.5	35.5	35.5	6	7	7	7	83.3	83.3	83.3	83.3
Kenya	42.5	47.7	47.7	47.7	21	35	35	35	63.1	48.1	48.1	48.1
Lesotho	52.5	52.5	52.5	52.5	41	42	42	42	34.2	34.2	34.2	34.2
Liberia	52.6	52.6	52.6	52.6	42	43	43	43	34.0	34.0	34.0	34.0
Madagascar	41.8	47.2	47.2	47.2	19	32	32	32	65.1	49.4	49.4	49.4
Malawi	50.3	39.0	39.0	39.0	38	11	11	11	40.5	73.2	73.2	73.2
Mali	40.0	39.0	39.0	39.0	14	10	10	10	70.3	73.3	73.3	73.3
Mauritania	39.0	39.0	39.0	39.0	9	12	12	12	73.1	73.1	73.1	73.1
Mauritius	38.9	38.9	38.9	38.9	8	9	9	9	73.5	73.5	73.5	73.5
Mozambique	44.5	47.1	47.1	47.1	29	31	31	31	57.4	49.8	49.8	49.8
Namihia	60.0	60.0	60.0	60.0	46	46	46	46	12.4	12.4	12.4	12.4
Niger	43.9	43.9	43.9	43.9	27	27	27	27	59.1	59.1	59.1	59.1
Nigeria	46.5	42.9	42.9	42.9	31	24	24	24	51.5	61.9	61.9	61.9
Rwanda	46.7	46.7	46.7	46.7	32	30	30	30	51.0	51.0	51.0	51.0
Sao Tome and Principe	49.0	49.0	49.0	49.0	35	37	37	37	44.3	44.3	44.3	44.3
Senegal	41.3	39.2	39.2	.39.2	17	14	14	14	66.7	72.7	72.7	72 7
Sevchelles	39.1	39.1	39.1	39.1	10	13	13	13	73.0	73.0	73.0	73.0
Sierra Leone	42.5	42.5	42.5	42.5	22	21	21	21	63.1	63.1	63.1	63.1
Somalia	42.0	42.0	42.0	42.0	22	27	27	27	00.1	00.7	00.1	00.7
South Africa	57.8	57.8	57.8	57.8	11	11	11	11	18.0	18.0	18.0	18.0
Sudan	57.0	57.0	57.0	57.0		44	44	77	10.5	10.9	10.9	10.9
Swaziland	50.7	50.7	50.7	50.7	40	10	40	10	20.4	20.4	20.4	20.4
Tanzania	30.7	50.7	30.7	50.7 24.6	40	40	40	40	39.4	39.4	39.4	39.4
Talizallia	34.0	34.0	34.0	34.0	4	5	5	5	00.9	05.9	00.9	00.5
10g0	34.4	34.4	34.4	34.4	3	4	4	4	86.5	80.5	60.0	60.0
\cup ganda	43.7	42.6	42.6	42.0	23	22	22	22	67.5	02.8	02.8	o∠.ŏ
	53.4	50.7	50.7	50.7	43	41	41	41	31.4	39.3	39.3	39.3
Zimbabwe	50.1	50.1	50.1	50.1	36	38	38	38	41.1	41.1	41.1	41.1
Algeria	35.3	35.3	35.3	35.3	5	6	6	6	83.9	83.9	83.9	83.9
Egypt	32.8	32.1	32.1	32.1	2	2	2	2	91.3	93.1	93.1	93.1
Libya										_		
Morocco	39.5	40.9	40.9	40.9	11	19	19	19	71.9	67.8	67.8	67.8
I unisia	40.8	40.8	40.8	40.8	16	18	18	18	68.0	68.0	68.0	68.0

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) 2009.¹ 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 2007, average life expectancy was about 55 years in Africa (and just over 53 years in sub-Saharan Africa). Countries with the longest life expectancy included Tunisia (74 years), Libya (74 years), the Seychelles (73 years), Mauritius (72 years), and Algeria (72 years). Countries with the shortest life expectancies included Swaziland, Mozambique, Zambia, Sierra Leone, Lesotho, Angola, Zimbabwe, and the Central African Republic–all with life expectancies of fewer than 45 years.

Other sources consulted for this indicator include the World Health Organization (WHO)'s 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. Source: 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

The WDI 2009 does not contain figures for 2006 for the Comoros, Ethiopia, Morocco, and Swaziland. Figures for 2005 are used as estimates.

3 Last accessed 13 May 2009.

¹ Last accessed 22 July 2009. The 2009 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 13 May 2009.

LIFE EXPECTANCY AT BIRTH (YEARS) World Bank's WDI 2009

					SCAI	LED D	ATA:					
	RAW DATA:					ed			Scaled	Overa	ll 0-100	
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007
Angola	41.0	42.0	42.4	42.7	50	49	50	48	5.2	8.2	9.1	10.1
Benin	54.5	55.7	56.2	56.7	20	21	21	21	43.6	47.2	48.5	49.8
Botswana	48.9	49.0	49.8	50.6	34	36	36	34	27.8	28.0	30.3	32.5
Burkina Faso	50.4	51.5	51.9	52.2	31	29	30	30	32.1	35.3	36.2	37.1
Burundi	46.5	48.6	49.0	49.5	41	37	37	37	20.8	26.9	28.2	29.4
Cameroon	50.8	50.2	50.3	50.4	30	34	35	36	33.1	31.4	31.7	32.0
Cape Verde	69.2	70.7	71.0	71.3	6	6	7	7	85.6	89.8	90.6	91.4
Central African Republic	44.4	44.1	44.4	44.7	46	46	46	46	14.8	14.1	14.9	15.7
Chad	50.9	50.6	50.6	50.6	29	33	34	33	33.5	32.5	32.6	32.6
Comoros	62.0	64.3	64.3	65.1	10	10	10	10	65.1	71.4	71.4	73.9
Congo (Brazzaville)	52.9	54.3	54.8	55.3	25	23	23	23	39.2	43.2	44.5	45.8
Congo, Democratic Rep.	44.0	45.8	46.1	46.4	47	43	43	42	13.7	19.0	19.8	20.7
Cote d'Ivoire	47.4	47.8	48.1	48.4	38	38	38	38	23.5	24.6	25.4	26.3
Djibouti	53.3	54.2	54.5	54.8	23	24	24	24	40.2	42.8	43.6	44.4
Equatorial Guinea	48.9	50.7	51.1	51.5	35	32	31	31	27.7	32.7	34.0	35.3
Eritrea	54.4	56.8	57.3	57.9	21	18	18	18	43.3	50.1	51.7	53.3
Ethiopia	50.2	52.0	52.0	52.9	32	28	28	27	31.4	36.7	36.7	39.2
Gabon	58.2	56.7	56.7	56.7	14	19	19	20	54.3	50.0	50.0	50.0
Gambia	57.2	58.9	59.1	59.4	16	14	14	14	51.2	56.1	56.9	57.7
Ghana	58.5	59.4	59.7	60.0	13	13	13	13	55.0	57.6	58.5	59.3
Guinea	52.8	55.1	55.5	56.0	26	22	22	22	38.8	45.2	46.6	47.9
Guinea-Bissau	45.2	46.0	46.2	46.4	43	42	42	43	17.3	19.5	20.0	20.5
Kenya	52.3	52.8	53.4	54.1	27	26	26	26	37.5	38.9	40.7	42.4
Lesotho	48.8	43.3	42.9	42.6	36	47	47	49	27.4	11.8	10.8	9.7
Liberia	43.1	44.9	45.3	45.7	48	45	45	45	11.3	16.3	17.4	18.5
Madagascar	56.3	58.6	59.0	59.4	17	15	15	15	48.9	55.2	56.4	57.7
Malawi	46.0	47.0	47.6	48.3	42	40	40	39	19.6	22.2	24.1	25.9
Mali	50.9	53.3	53.8	54.3	28	25	25	25	33.5	40.1	41.6	43.1
Mauritania	61.5	63.4	63.7	64.1	11	11	11	11	63.5	68.9	70.0	71.1
Mauritius	71.7	72.4	72.4	72.4	4	3	3	4	92.5	94.7	94.7	94.7
Mozambique	44.9	42.8	42.5	42.1	45	48	49	52	16.4	10.5	9.4	8.3
Namibia	54.4	52.2	52.5	52.8	22	27	27	28	43.3	37.2	38.0	38.8
Niger	53.2	55.9	56.4	56.9	24	20	20	19	40.1	47.8	49.1	50.5
Nigeria	46.9	46.7	46.8	46.8	39	41	41	41	22.1	21.6	21.7	21.9
Rwanda	40.4	45.0	45.6	46.2	52	44	44	44	3.6	16.7	18.3	20.0
Sao Tome and Principe	63.9	65.0	65.2	65.4	9	9	9	9	70.3	73.5	74.1	74.8
Senegal	61.0	62.5	62.8	63.0	12	12	12	12	62.3	66.3	67.2	68.0
Seychelles	72.3	72.1	72.2	73.2	3	4	4	3	94.4	93.8	94.1	96.8
Sierra Leone	40.6	41.9	42.2	42.5	51	51	51	50	4.0	7.9	8.8	9.7
Somalia	45.1	47.2	47.7	48.1	44	39	39	40	16.8	23.0	24.3	25.6
South Africa	56.1	51.4	50.7	50.5	18	30	33	35	48.3	34.8	32.9	32.2
Sudan	56.0	57.7	58.1	58.5	19	17	17	16	47.8	52.7	53.9	55.2
Swaziland	48.0	41.3	41.3	39.6	37	52	53	53	25.2	6.1	6.1	1.3
Tanzania	49.1	51.3	51.9	52.5	33	31	29	29	28.4	34.6	36.3	37.9
Togo	57.9	58.0	58.2	58.4	15	16	16	17	53.2	53.7	54.2	54.7
Uganda	46.5	50.0	50.7	51.5	40	35	32	32	20.9	30.9	33.0	35.1
Zambia	39.6	41.0	41.7	42.3	53	53	52	51	1.2	5.4	7.2	9.0
Zimbabwe	42.7	42.0	42.7	43.4	49	50	48	47	10.1	8.1	10.1	12.0
Algeria	70.2	71.7	72.0	72.3	5	5	5	5	88.3	92.7	93.4	94.2
Egypt	68.8	70.7	71.0	71.3	8	7	6	6	84.2	89.8	90.6	91.5
Libya	72.5	73.7	74.0	74.2	2	1	1	2	95.0	98.4	99.1	99.8
Morocco	68.8	70.5	70.5	71.1	7	8	8	8	84.4	89.3	89.3	91.0
Tunisia	72.6	73.5	73.9	74.3	1	2	2	1	95.2	97.7	98.9	100.0

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). Estimates, which are updated every six months, are available on the IHME website (www. healthmetricsandevaluation.org).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 Ibrahim Index included an indicator of infant mortality instead of child mortality. We revised this indicator for the 2008 Ibrahim Index based on the argument that child mortality is a more appropriate indicator than infant mortality in high-mortality settings.³ The 2009 Index follows the 2008 usage.

In the year 2007, average estimated child mortality across African countries was about 117 deaths per 1,000 live births. In sub-Saharan Africa, child mortality was higher, with an average 127 deaths per 1,000 live births. Across the years of the Index, estimated child mortality was consistently worst in Sierra Leone and Angola. Roughly a quarter of children in both countries died before age five. Estimates also suggest improvement in child mortality rates on the continent between 2000 and 2007. However, given uncertainty in the underlying data, trends in these *estimates* should be interpreted with caution. (Technically sophisticated readers may refer to the original IHME dataset, which includes 95 percent confidence intervals for point estimates.)

Countries with the consistently best child mortality estimates include Libya (10.2 per 1,000 live births in 2007), Mauritius (12.7 in 2007), Tunisia (20.6 in 2007), Algeria (27.9 in 2007), Cape Verde (31.3 in 2007), Egypt (31.6 in 2007), Botswana (37.7 in 2007), and Morocco (38.4 in 2007). North African countries ranked among the top performers in this indicator, always in 8th place or above.

Technical Notes

The IHME dataset does not include estimates for Djibouti or the Seychelles.

¹ Last accessed 13 May 2009. Readers may also wish to refer to data provided on the MDG Monitor website for 1990, 1995, 2000, 2004, 2005, and 2006 (www.mdgmonitor.org/ [last accessed 13 May 2009]). The Murray et al., dataset is based on re-assessment of the data used by the MDG Monitor and other sources.

² On methods, see Murray, et al., "Can We Achieve," 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) (2nd ed.), 15–30; Kenneth Hill, "Age Patterns of Under-Five Mortality in the Developing World," *Population Bulletin of the United Nations* (1995), 112–132.

CHILD MORTALITY PER 1,000 LIVE BIRTHS

Institute for Health Metrics and Evaluation; and Murray et al. 2007

							ATA:						
	RAW DATA:				Ranked				Scaled Overall 0-100				
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007	
Angola	247.3	242.5	241.6	240.6	50	50	50	50	6.5	8.4	8.8	9.1	
Benin	147.5	133.6	130.8	128.3	32	31	31	32	45.9	51.3	52.4	53.4	
Botswana	45.2	39.8	38.8	37.7	6	7	7	7	86.2	88.3	88.7	89.2	
Burkina Faso	180.9	168.2	165.8	163.4	38	38	37	37	32.7	37.7	38.6	39.6	
Burundi	192.0	190.3	189.8	189.6	43	42	44	44	28.3	29.0	29.2	29.3	
Cameroon	134.0	127.8	126.5	125.4	29	29	29	29	51.2	53.6	54.1	54.6	
Cape Verde	43.3	34.3	32.8	31.3	5	5	5	5	86.9	90.5	91.1	91.7	
Central African Republic	156.3	149.4	148.2	147.1	34	35	35	35	42.4	45.1	45.6	46.0	
Chad	189.1	180.1	178.4	176.8	41	41	41	41	29.5	33.0	33.7	34.3	
Comoros	69.7	57.3	55.1	53.0	11	10	10	10	76.5	81.4	82.3	83.1	
Congo (Brazzaville)	114.9	121.7	123.0	124.3	22	28	28	28	58.7	56.0	55.5	55.0	
Congo, Democratic Rep.	214.5	218.2	218.9	219.5	47	48	48	48	19.4	18.0	17.7	17.5	
Cote d'Ivoire	124.4	114.3	112.4	110.4	26	25	25	25	55.0	59.0	59.7	60.5	
Diibouti													
Equatorial Guinea	195.6	207.0	209.4	211.8	44	46	47	47	26.9	22.4	21.5	20.5	
Equatorial Sumea	89.6	70.5	67.2	64.1	15	13	12	11	68.7	76.2	77.5	78.7	
Ethiopia	134.1	120.0	117.3	114.6	30	26	26	26	51.1	56.7	57.8	58.8	
Gabon	81.5	75.9	74.9	73.8	13	14	14	14	71.9	74.1	74.5	74.9	
Gambia	118.2	102.3	99.4	96.5	24	22	22	22	57.4	63.7	64.8	66.0	
Ghana	101.7	92.4	90.7	89.0	18	17	17	17	63.9	67.6	68.3	68.9	
Guinea	159.8	135.6	131.1	126.7	35	33	32	31	41.0	50.6	52.3	54.1	
Guinea-Bissau	213.4	192.8	189.0	185.2	46	44	43	43	19.9	28.0	29.5	31.0	
Kenya	98.6	96.1	95.4	94.7	17	20	20	20	65.1	66.1	66.4	66.7	
Lesotho	86.3	79.2	77.6	76.2	14	15	15	15	70.0	72.8	73.4	74.0	
Liberia	182.9	172 7	170.8	168.8	39	40	40	40	31.9	35.9	36.7	37.5	
Madagascar	110.9	95.6	93.1	90.6	21	19	19	18	60.3	66.3	67.3	68.3	
Malawi	155.2	133.6	129.9	126.2	33	31	30	30	42.8	51.3	52.8	54.3	
Mali	209.9	191.3	187.7	184.2	45	43	42	42	21.3	28.6	30.0	31.4	
Mauritania	108.2	98.8	97.2	95.5	20	21	21	21	61.4	65.1	65.7	66.4	
Mauritius	17 1	13.9	13.3	12.7	20	2	2	2	97.3	98.5	98.8	99.0	
Mozambique	183.5	171.6	169.4	167.3	40	39	39	39	31.7	36.4	37.2	38.1	
Nomibie	53.8	47.4	46.2	45.1	40	9	9	0	82.8	85.3	85.8	86.2	
Naiiii0ia	238.6	200.4	205.3	200.7	10	47	46	46	02.0	21.5	23.1	24.0	
Nigeria	100.0	102.9	102.1	102.6	40	47	40	45	20.7	29.0	27.0	24.3	
Rwanda	172.7	160 1	167.1	166.0	42	27	40	40	20.7	20.0	20.1	20.6	
Sao Tome and Principe	173.7	100.1	107.1	100.0	07	37	30	20	50.0	57.7	50.1	50.0	
Senegal	129.2	104.2	101.4	00.0	27	30	33	22	53.1	52.5	52.1	52.0	
Sevehelles	117.0	104.2	101.4	90.0	23	23	23	23	57.9	02.9	04.0	05.1	
Sierra Leone	262.0	252.7	0E1 E	240.4	E 4	E1	E1	E1	0.0	1.0	4.0	F 7	
Somalia	203.0	255.7	251.5	249.4	51	51	51	51	0.0	4.0	4.9	5.7	
South A frica	220.0	219.9	219.0	219.7	40	49	49	49	77.0	17.5	70.0	70.0	
South Africa	67.3	08.5	68.7	09.0	10	12	13	13	77.5	77.0	76.9	/6.8	
Suuali	102.5	94.4	93.0	91.5	19	18	18	19	03.0	55.8	67.4	67.9	
Swazilaliu	90.7	80.8	79.0	(1.2	16	16	16	16	68.3	72.2	72.9	73.6	
Tanzania	130.8	121.3	119.3	117.4	28	27	27	27	52.4	56.2	57.0	57.7	
logo	120.9	109.7	107.5	105.5	25	24	24	24	56.3	60.8	61.6	62.4	
Uganda	144.3	135.9	134.1	132.5	31	34	34	34	47.1	50.4	51.1	51.8	
Zambia	165.5	163.8	163.6	163.3	36	36	36	36	38.8	39.4	39.5	39.6	
Zimbabwe	70.6	67.0	66.3	65.5	12	11	11	12	76.2	77.6	77.9	78.2	
Algeria	41.2	31.2	29.5	27.9	4	4	4	4	87.8	91.7	92.4	93.0	
Egypt	48.8	35.7	33.6	31.6	7	6	6	6	84.8	89.9	90.8	91.6	
Libya	16.6	11.7	10.9	10.2	1	1	1	1	97.5	99.4	99.7	100.0	
Morocco	52.2	41.9	40.2	38.4	8	8	8	8	83.4	87.5	88.2	88.9	
Tunisia	30.3	23.0	21.7	20.6	3	3	3	3	92.1	95.0	95.5	95.9	

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 underscored in the Millennium Development Goals, where it is included as Goal 5.

The Index measures maternal mortality using the Maternal Mortality Ratio (MMR), which is 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 suggest that, on average in Africa, mothers die during pregnancy and childbirth in almost 1 percent of live births (0.76 percent in all of Africa and 0.82 percent in sub-Saharan Africa only). In Sierra Leone, the estimated rate is as high as 2.1 percent (2,100 per 100,000 live births), while in Niger the estimate is 1,800 per 100,000. The lowest (e.g. the best) maternal mortality ratios in Africa, by far, are estimated in Mauritius (15 per 100,000), followed by Libya (97), Tunisia (100), and Egypt (130).

Our figures are drawn from UNICEF's *The State of the World's Children 2009: Maternal and Newborn Health* and are consistent with those published in other reports using the WHO, UNICEF, UNFPA, and World Bank estimates, including the World Bank's World Development Indicators 2009, WHO's *World Health Statistics 2009*, the UN's "Millennium Development Goals Indicators," and the United Nations Statistics Divisions' "UNDATA."³ These figures on maternal mortality are adjusted periodically from nationally reported figures, taking into account well-documented differences in methods of estimation across countries and problems of underreporting.

Without such adjustment, figures would not be cross-nationally comparable. For this reason, our figures do not always match figures reported by local sources. These discrepancies have been brought to our attention by several governments and in-country sources, as well as through our own review of the data.

Official Local Data and Other Sources

The Index team also reviewed other available estimates of MMR for each country. The table below gives locally reported figures as given in UNICEF's *State of the World's Children 2009*, estimates from the African Development Bank's *African Statistical Yearbook 2009*, and the WHO, UNICEF, UNFPA, and World Bank estimates used in the Index. While some differences between "adjusted" and "reported" MMRs are expected, some are notable. And there are also puzzling discrepancies between both of these columns and the African Development Bank's 2009 estimates (see, for instance, Benin, Burundi, Cape Verde, the Democratic Republic of the Congo, Niger, Rwanda, Senegal, South Africa, Tanzania, and Zimbabwe).

In the 2007–2008 round of local data collection for the Index of African Governance, our in-country researchers also compiled official statistics on maternal mortality. We did not collect these data in 2008–2009 because UNICEF also collects such "reported" figures, and we thus chose to focus our efforts elsewhere. However, we welcome new information.

From World Development Indicators (last accessed 22 July 2009). 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; 2nd ed.), 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 MDG (last accessed 2 June 2009); UNDATA (last accessed 29 May 2009).

	"Adjusted" MMR (WHO, UNICEF, UNFPA, and World Bank 2005)	"Reported" MMR (UNICEF 2009)⁴	African Devel African Statistic	lopment Bank, al Yearbook 2009
	Estimates for 2005	Latest year available, 2000–2007	1990–1999	2005–2007
Algeria	180	120x	117.4	180.0
Angola	1400		1300.0	1400.0
Benin	840	400	498.0	397.0
Botswana	380	330x		380.0
Burkina Faso	700	480x	484.0	700.0
Burundi	1100	620	499.0	480.0
Cameroon	1000	670		669.0
Cape Verde	210	15	42.0	36.2
Central African Republic	980	540	649.0	980.0
Chad	1500	1100	900.0	1099.0
Comoros	400	380	460.0	400.0
Congo (Brazzaville)	740	780	890.0	781.0
Congo, Dem. Rep.	1100	1300		549.0
Côte d'Ivoire	810	540	597.0	543.0
Djibouti	650	74x	570.0	650.0
Egypt, Arab Rep.	130	84	96.0	130.0
Equatorial Guinea	680		820.0	680.0
Eritrea	450	1000x	1400.0	450.0
Ethiopia	720	670	1400.0	673.0
Gabon	520	520	500.0	520.0
Gambia	690	730	1000.0	690.0
Ghana	560	210x	740.0	560.0
Guinea	910	980	528.0	980.0
Guinea-Bissau	1100	410	822.0	1100.0
Kenya	560	410	570.0	560.0
Lesotho	960	760x	610.0	762.0
Liberia	1200	580x	560.0	1200.0
Libya	97	77x	220.0	97.0
Madagascar	510	470	488.0	469.0
Malawi	1100	810	620.0	984.0
Mali	970	460	580.0	970.0
Mauritania	820	750	800.0	820.0
Mauritius	15	22	34.0	23.1
Morocco	240	230	228.0	227.0
Mozambique	520	410	1500.0	520.0

⁴ An "x" next to the reported figure indicates that "data refer to years or periods other than those specified in the column heading, differ from the standard definition or refer to only part of a country" (p. 149).

Namibia	210	270	220.0	268.0
Niger	1800	650	593.0	648.0
Nigeria	1100		704.0	1100.0
Rwanda	1300	750	2300.0	750.0
São Tomé and Príncipe		150	106.4	120.3
Senegal	980	400	510.0	401.0
Seychelles		57		
Sierra Leone	2100	1800	1800.0	2100.0
Somalia	1400	1000	1600.0	1400.0
South Africa	400	170	150.0	110.0
Sudan	450	550x	370.0	450.0
Swaziland	390	590	550.0	589.0
Tanzania	950	580	530.0	578.0
Togo	510	480x	640.0	510.0
Tunisia	100	69x	68.9	41.0
Uganda	550	440	550.0	435.0
Zambia	830	730	649.0	830.0
Zimbabwe	880	560	280.0	555.0

Technical Notes

The MMR estimates from WHO, UNICEF, UNFPA, and The World Bank are only available for 2005 for each country. Earlier estimates from 2000 are not comparable to these figures, and users of the 2005 estimates are cautioned against using these data to assess changes over time for particular countries.⁵ Other projects, such as the Millennium Development Goals Indicators, also use these estimates and thus face similar constraints in assessing progress over time.

For lack of better information, these 2005 estimates are used to calculate the Index in 2000, 2002, 2006, and 2007 as well and are noted in italics.

Estimates are unavailable for São Tomé and Príncipe and the Seychelles. The latest nationally reported (unadjusted) figures were 150 and 57, respectively, as noted above. 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).

⁵ 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).

MATERNAL MORTALITY RATIO (MMR) (PER 100,000 LIVE BIRTHS)

Estimates Developed by WHO, UNICEF, UNFPA, and the World Bank

					SCAL	ED D	ATA:					
	RAW DATA:			Ranke	d			Scaled	Scaled Overall 0-100			
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007
Angola	1400	1400	1400	1400	47	47	47	47	33.6	33.6	33.6	33.6
Benin	840	840	840	840	31	31	31	31	60.4	60.4	60.4	60.4
Botswana	380	380	380	380	9	9	9	9	82.5	82.5	82.5	82.5
Burkina Faso	700	700	700	700	25	25	25	25	67.1	67.1	67.1	67.1
Burundi	1100	1100	1100	1100	40	40	40	40	48.0	48.0	48.0	48.0
Cameroon	1000	1000	1000	1000	39	39	39	39	52.8	52.8	52.8	52.8
Cape Verde	210	210	210	210	6	6	6	6	90.6	90.6	90.6	90.6
Central African Republic	980	980	980	980	37	37	37	37	53.7	53.7	53.7	53.7
Chad	1500	1500	1500	1500	49	49	49	49	28.8	28.8	28.8	28.8
Comoros	400	400	400	400	11	11	11	11	81.5	81.5	81.5	81.5
Congo (Brazzaville)	740	740	740	740	27	27	27	27	65.2	65.2	65.2	65.2
Congo, Democratic Rep.	1100	1100	1100	1100	40	40	40	40	48.0	48.0	48.0	48.0
Cote d'Ivoire	810	810	810	810	28	28	28	28	61.9	61.9	61.9	61.9
Diibouti	650	650	650	650	22	22	22	22	69.5	69.5	69.5	69.5
Equatorial Guinea	680	680	680	680	23	23	23	23	68.1	68.1	68.1	68.1
Eritrea	450	450	450	450	13	13	13	13	79.1	79.1	79.1	79.1
Ethiopia	720	720	720	720	26	26	26	26	66.2	66.2	66.2	66.2
Gabon	520	520	520	520	17	17	17	17	75.8	75.8	75.8	75.8
Gambia	690	690	690	690	24	24	24	24	67.6	67.6	67.6	67.6
Ghana	560	560	560	560	20	20	20	20	73.9	73.9	73.9	73.9
Guinea	910	910	910	910	33	33	33	33	57.1	57.1	57.1	57.1
Guinea-Bissau	1100	1100	1100	1100	40	40	40	40	48.0	48.0	48.0	48.0
Kenya	560	560	560	560	20	20	20	20	73.9	73.9	73.9	73.9
Lesotho	960	960	960	960	35	35	35	35	54.7	54.7	54.7	54.7
Liberia	1200	1200	1200	1200	45	45	45	45	43.2	43.2	43.2	43.2
Madagascar	510	510	510	510	15	15	15	15	76.3	76.3	76.3	76.3
Malawi	1100	1100	1100	1100	40	40	40	40	48.0	48.0	48.0	48.0
Mali	970	970	970	970	36	36	36	36	54.2	54.2	54.2	54.2
Mauritania	820	820	820	820	29	29	29	29	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	17	17	17	17	75.8	75.8	75.8	75.8
Namibia	210	210	210	210	6	6	6	6	90.6	90.6	90.6	90.6
Niger	1800	1800	1800	1800	50	50	50	50	14.4	14.4	14.4	14.4
Nigeria	1100	1100	1100	1100	40	40	40	40	48.0	48.0	48.0	48.0
Rwanda	1300	1300	1300	1300	46	46	46	46	38.4	38.4	38.4	38.4
Sao Tome and Principe	1000	1000	1000	1000	,0	10			00.7	00.1	00.7	00.7
Senegal	980	980	980	980	.37	37	.37	37	53 7	53 7	53 7	53 7
Sevchelles	000	000	000	000	0,	0.	0,	0,	00.7	00.1	00.1	00.7
Sierra Leone	2100	2100	2100	2100	51	51	51	51	0.0	0.0	0.0	0.0
Somalia	1400	1400	1400	1400	47	47	47	47	33.6	33.6	33.6	33.6
South Africa	400	400	400	400	11	11	11	11	81.5	81.5	81.5	81.5
Sudan	450	450	450	450	13	13	13	13	79.1	79.1	79.1	79.1
Swaziland	300	300	300	300	10	10	10	10	82.0	82.0	82.0	82.0
Tanzania	950	950	950	950	34	34	34	34	55.2	55.2	55.2	55.2
Tanzania	510	510	510	510	15	15	15	15	76.2	76.2	76.2	76.2
Licondo	550	550	550	550	10	10	10	10	74.2	74.9	74.2	74.9
Uganda Zambia	830	830	830	830	30	30	30	30	60.0	60.0	60.0	60.0
Zaiii0ia Zimbahwa	800	800	800	880	20	30	20	20	50.9 E0.5	50.9 E0 F	50 F	50 F
Algeria	190	100	100	180	52	52	52	52	JØ.5	00.0	00.0	00.0
Ecumt	100	100	100	120	5	5	5	5	92.1	92.1	92.1	92.1
Egypt	130	130	130	07	4	4	4	4	94.5	94.5	94.5	94.0
Libya	97	97	97	97	2	2	2	2	96.1	96.1	96.1	96.1
Tunisia	240	240	240	240	ð	ð	ð	σ	σ9.2	69.2	09.2	09.2
i unisia	100	100	100	100	3	3	3	3	95.9	90.9	90.9	90.9

Category:Human DevelopmentSub-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 Statistics Division of the Food and Agricultural Organization of the United Nations (FAO).¹

There are a number of 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, Italy, 26–28 June 2002.³

The importance of eradicating extreme poverty and hunger is highlighted in the Millennium Development Goals (MDGs), as Goal 1. 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 additional 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. Those interested in food security in particular countries, however, should consult such additional measures, in addition to the more detailed data available through household surveys from many countries.

On average across African countries, the most recent estimates suggest that just over a quarter (26 percent) of the population is undernourished. In sub-Saharan Africa, the average is still higher at 28.3 percent. The FAO estimates the lowest rates of undernourishment (5 percent or less) in Algeria, Egypt, Gabon, Libya, Morocco, São Tomé and Príncipe, South Africa, and Tunisia. The highest estimated rates are in the Democratic Republic of the Congo (76 percent), Eritrea (68 percent), Burundi (63 percent), and the Comoros (52 percent).

Technical Notes

Annual data are unavailable. Only three estimates are available for each country, covering the periods 1990–1992, 1995–1997, and 2003–2005. In order to roughly assess changes over time, the Index of African Governance uses the FAO estimates for the 2003–2005 period as rough estimates for 2005, 2006, and 2007 and the FAO estimates for the 1995–1997 period as rough estimates for 2002.

FAO estimates are unavailable for Equatorial Guinea and Somalia.

The lowest numerical value in the sample is 5 percent. The FAO dataset assigns countries below that a value of <5 percent. The Index of African Governance assigns all of these data points a value of 5, which is the best possible value.

Statistics are made publicly available as "Food Security Statistics" at www.fao.org/es/ess/faostat/foodsecurity/index_en.htm (last accessed 29 May 2009). Undernourishment figures were last updated on 8 July 2008. The 2008 Ibrahim Index of African Governance used FAO data as reported in the World Bank's World Development Indicators (WDI) 2008. These figures differed from those reported here. The latest edition of the WDI (last accessed 29 May 2009) is equivalent to the FAO figures reported here for all countries except Cape Verde (for which the WDI does not report estimates, but FAO does).

² See www.fao.org/unfao/govbodies/cfs/indicators_en.htm (last accessed 29 May 2009). See also FAO's Special Programme for Food Security (www.fao.org/spfs/en/).

³ Available at www.fao.org/docrep/005/y4249e/y4249e00.htm (last accessed 29 May 2009).

UNDERNOURISHMENT (% OF POPULATION) Food and Agriculture Organization

					SCAL	SCALED DATA:								
	RAW	DATA	•		Ranke	d			5	Scaled	Overal	10-100)	
	2000	2005	2006	2007	2000	2005	2006	2007	2	2000	2005	2006	2007	
Angola	58	46	46	46	49	45	45	45		25.4	42.3	42.3	42.3	
Benin	26	19	19	19	24	22	22	22		70.4	80.3	80.3	80.3	
Botswana	24	26	26	26	22	27	27	27		73.2	70.4	70.4	70.4	
Burkina Faso	12	10	10	10	12	14	14	14		90.1	93.0	93.0	93.0	
Burundi	57	63	63	63	47	49	49	49		26.8	18.3	18.3	18.3	
Cameroon	35	23	23	23	30	26	26	26		57.7	74.6	74.6	74.6	
Cape Verde	14	15	15	15	14	17	17	17		87.3	85.9	85.9	85.9	
Central African Republic	50	43	43	43	42	43	43	43		36.6	46.5	46.5	46.5	
Chad	51	39	39	39	44	39	39	39		35.2	52.1	52.1	52.1	
Comoros	48	52	52	52	41	48	48	48		39.4	33.8	33.8	33.8	
Congo (Brazzaville)	43	22	22	22	38	25	25	25		46.5	76.1	76.1	76.1	
Congo, Democratic Rep.	57	76	76	76	47	51	51	51		26.8	0.0	0.0	0.0	
Cote d'Ivoire	16	14	14	14	17	16	16	16		84.5	87.3	87.3	87.3	
Djibouti	50	32	32	32	42	32	32	32		36.6	62.0	62.0	62.0	
Equatorial Guinea														
Eritrea	64	68	68	68	51	50	50	50		16.9	11.3	11.3	11.3	
Ethiopia	63	46	46	46	50	45	45	45		18.3	42.3	42.3	42.3	
Gabon	5	5	5	5	1	1	1	1		100.0	100.0	100.0	100.0	
Gambia	31	30	30	30	28	31	31	31		63.4	64.8	64.8	64.8	
Ghana	16	9	9	9	17	11	11	11		84.5	94.4	94.4	94.4	
Guinea	18	17	17	17	19	20	20	20		81.7	83.1	83.1	83.1	
Guinea-Bissau	26	32	32	32	24	32	32	32		70.4	62.0	62.0	62.0	
Kenya	30	32	32	32	27	32	32	32		64.8	62.0	62.0	62.0	
Lesotho	13	15	15	15	13	17	17	17		88.7	85.9	85.9	85.9	
Liberia	39	40	40	40	33	40	40	40		52.1	50.7	50.7	50.7	
Madagascar	37	37	37	37	32	36	36	36		54.9	54.9	54.9	54.9	
Malawi	36	29	29	29	31	29	29	29		56.3	66.2	66.2	66.2	
Mali	15	11	11	11	15	15	15	15		85.9	91.5	91.5	91.5	
Mauritania	8	8	8	8	9	10	10	10		95.8	95.8	95.8	95.8	
Mauritius	6	6	6	6	8	9	9	9		98.6	98.6	98.6	98.6	
Mozambique	52	38	38	38	45	38	38	38		33.8	53.5	53.5	53.5	
Namibia	29	19	19	19	26	22	22	22		66.2	80.3	80.3	80.3	
Niger	40	29	29	29	35	29	29	29		50.7	66.2	66.2	66.2	
Nigeria	10	9	9	9	11	11	11	11		93.0	94.4	94.4	94.4	
Rwanda	56	40	40	40	46	40	40	40		28.2	50.7	50.7	50.7	
Sao Tome and Principe	15	5	5	5	15	1	1	1		85.9	100.0	100.0	100.0	
Senegal	32	26	26	26	29	27	27	27		62.0	70.4	70.4	70.4	
Seychelles	9	9	9	9	10	11	11	11		94.4	94.4	94.4	94.4	
Sierra Leone	43	47	47	47	38	47	47	47		46.5	40.8	40.8	40.8	
Somalia														
South Africa	5	5	5	5	1	1	1	1		100.0	100.0	100.0	100.0	
Sudan	24	21	21	21	22	24	24	24		73.2	77.5	77.5	77.5	
Swaziland	20	18	18	18	20	21	21	21		78.9	81.7	81.7	81.7	
Tanzania	41	35	35	35	36	35	35	35		49.3	57.7	57.7	57.7	
Togo	39	37	37	37	33	36	36	36		52.1	54.9	54.9	54.9	
Uganda	23	15	15	15	21	17	17	17		74.6	85.9	85.9	85.9	
Zambia	41	45	45	45	36	44	44	44		49.3	43.7	43.7	43.7	
Zimbabwe	46	40	40	40	40	40	40	40		42.3	50.7	50.7	50.7	
Algeria	5	5	5	5	1	1	1	1		100.0	100.0	100.0	100.0	
Egypt	5	5	5	5	1	1	1	1		100.0	100.0	100.0	100.0	
Libya	5	5	5	5	1	1	1	1		100.0	100.0	100.0	100.0	
Morocco	5	5	5	5	1	1	1	1		100.0	100.0	100.0	100.0	
Tunisia	5	5	5	5	1	1	1	1		100.0	100.0	100.0	100.0	

Category:Human DevelopmentSub-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). We assert that immunization rates reflect governmental interest and intervention—governance.

In this edition of the Index, statistics are drawn from two different sources. For measles, we use figures from the World Health Organization and the United Nations Children's Fund, as reported by the World Bank's World Development Indicators (WDI) 2009.¹ The indicator measures the percentage of children aged 12–23 months who have been immunized against measles.² This is a standard source used in many other studies.

For DPT, we use new estimates based on new research published in *The Lancet* by a team of researchers of the University of Washington's Institute for Health Metrics and Evaluation (IHME) (see Stephen S. Lim, David B. Stein, Alexandra Charrow, and Christopher J.L. Murray, "Tracking Progress towards Universal Childhood Immunisation and the Impact of Global Initiatives: A Systematic Analysis of Three-dose Diphtheria, Tetanus, and Pertussis Immunisation Coverage," *The Lancet*, CCCLXXII [2008], 2031–2046). Estimates are available on the IHME website (www.healthmetricsandevaluation. org).³

The IHME estimates (which are only available for DPT, not for measles) address long-standing concerns that immunization rates may be overestimated, for which Lim et al.'s study offers some support. The study provides new estimates of DPT immunization coverage using all available survey data. It finds that while immunization rates have indeed increased over time, they have not increased as much as suggested by other estimates.

The latest immunization rate estimates for measles range from a low of 23 percent (Chad) to a high of 99 percent (Rwanda and the Seychelles). Across countries in the region, the average rate of immunization for measles among children was about 77 percent, roughly equivalent to rates in Mozambique and Guinea-Bissau.

The latest immunization rate estimates for DPT range from a low of 20 percent (Somalia) to a high of 96–97 percent (Botswana, Morocco, Eritrea, and Tunisia). Across countries in the region, average rates of immunization for DPT were about 73 percent.

Technical Notes

For DPT, the IHME study provides estimates only for 1986–2006. Figures for 2006 are given as estimates for 2007.

¹ Last accessed 22 July 2009.

² Specifically, those "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."

³ Last accessed 22 July 2009.

IMMUNIZATION, MEASLES WHO and UNICEF (as Reported in WDI 2009)

					SCAI	ED D	ATA:										
	RAW	DATA	1:		Ranke	ed			Scaled	Overal	10-100)					
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007					
Angola	41	45	48	88	46	51	50	16	23.7	28.9	32.9	85.5					
Benin	72	61	61	61	23	43	47	48	64.5	50.0	50.0	50.0					
Botswana	90	90	90	90	6	11	14	14	88.2	88.2	88.2	88.2					
Burkina Faso	59	84	88	94	31	16	15	11	47.4	80.3	85.5	93.4					
Burundi	75	75	75	75	16	26	28	31	68.4	68.4	68.4	68.4					
Cameroon	49	68	73	74	41	34	29	32	34.2	59.2	65.8	67.1					
Cape Verde	80	65	65	74	12	39	41	32	75.0	55.3	55.3	67.1					
Central African Republic	36	62	62	62	49	41	44	46	17.1	51.3	51.3	51.3					
Chad	28	23	23	23	53	53	53	53	6.6	0.0	0.0	0.0					
Comoros	70	80	66	65	27	23	38	44	61.8	75.0	56.6	55.3					
Congo (Brazzaville)	34	56	66	67	51	47	38	39	14.5	43.4	56.6	57.9					
Congo, Democratic Rep.	46	70	73	79	44	29	29	27	30.3	61.8	65.8	73.7					
Cote d'Ivoire	73	84	73	67	21	16	29	39	65.8	80.3	65.8	57.9					
Djibouti	50	65	67	74	40	39	35	32	35.5	55.3	57.9	67.1					
Equatorial Guinea	51	51	51	51	39	49	49	50	36.8	36.8	36.8	36.8					
Eritrea	86	95	95	95	7	7	6	7	82.9	94.7	94.7	94.7					
Ethiopia	52	59	63	65	37	45	42	44	38.2	47.4	52.6	55.3					
Gabon	55	55	55	55	36	48	48	49	42.1	42.1	42.1	42.1					
Gambia	85	84	95	85	8	16	6	18	81.6	80.3	94.7	81.6					
Ghana	84	83	85	95	10	20	16	7	80.3	78.9	81.6	94.7					
Guinea	42	59	67	71	45	45	35	35	25.0	47.4	57.9	63.2					
Guinea-Bissau	71	76	76	76	25	25	26	30	63.2	69.7	69.7	69.7					
Kenya	75	69	77	80	16	32	24	25	68.4	60.5	71.1	75.0					
Lesotho	74	85	85	85	19	14	16	18	67.1	81.6	81.6	81.6					
Liberia	52	94	94	95	37	8	10	7	38.2	93.4	93.4	94.7					
Madagascar	56	70	76	81	35	29	26	24	43.4	61.8	69.7	76.3					
Malawi	73	82	85	83	21	22	16	22	65.8	77.6	81.6	78.9					
Mali	49	68	68	68	41	34	33	37	34.2	59.2	59.2	59.2					
Mauritania	62	61	62	67	30	43	44	30	51.3	50.0	51.3	57.9					
Mouritius	84	08	02	08	10		1	3	80.3	08.7	100.0	08.7					
Mozambiquo	71	77	77	77	25	2	24	20	63.2	71.1	71.1	71.1					
Nozamorque	60	72	62	60	20	24	42	25	60.5	65.9	F2.6	60.5					
Namioia	24	13	47	47	51	20	42	50	14.5	21.6	21.6	21.6					
Nigeria	34	47	47	47	51	50	51	51	14.5	51.0	51.0	51.0					
Dwanda	35	62	62	62	50	41	44	40	15.8	51.3	51.3	51.3					
Sao Tome and Principe	74	89	95	99	19	12	0	1	67.1	80.8	94.7	100.0					
Sao Tome and Emerge	69	88	85	86	28	13	16	1/	60.5	85.5	81.6	82.9					
Sevehallas	48	74	80	84	43	21	23	21	32.9	67.1	75.0	80.3					
Sierra Leone	97	99	99	99	2	1	1	1	97.4	100.0	100.0	100.0					
Siella Leolie	37	67	67	67	48	37	35	39	18.4	57.9	57.9	57.9					
South A frice	38	35	35	34	47	52	52	52	19.7	15.8	15.8	14.5					
South Africa	77	84	85	83	15	16	16	22	71.1	80.3	81.6	78.9					
Sudan	58	69	73	79	33	32	29	27	46.1	60.5	65.8	73.7					
Swaziland	72	91	91	91	23	9	12	13	64.5	89.5	89.5	89.5					
Tanzania	78	91	93	90	14	9	11	14	72.4	89.5	92.1	88.2					
Togo	58	70	83	80	33	29	22	25	46.1	61.8	78.9	75.0					
Uganda	59	68	68	68	31	34	33	37	47.4	59.2	59.2	59.2					
Zambia	85	85	85	85	8	14	16	18	81.6	81.6	81.6	81.6					
Zimbabwe	75	66	66	66	16	38	38	43	68.4	56.6	56.6	56.6					
Algeria	80	83	91	92	12	20	12	12	75.0	78.9	89.5	90.8					
Egypt	98	98	98	97	1	2	3	6	98.7	98.7	98.7	97.4					
Libya	92	97	98	98	5	4	3	3	90.8	97.4	98.7	98.7					
Morocco	93	97	95	95	4	4	6	7	92.1	97.4	94.7	94.7					
Tunisia	95	96	98	98	3	6	3	3	94.7	96.1	98.7	98.7					

IMMUNIZATION, DPT

Institute for Health Metrics and Evaluation; and Lim et al. 2008

						ED D	ATA:										
	RAW	DATA	.:		Ranke	d			Scaled	Overa	ll 0-100						
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007					
Angola	29.0	42.1	41.2	41.2	49	48	49	49	13.5	30.1	28.9	28.9					
Benin	73.9	67.6	67.6	67.6	23	35	36	36	70.2	62.2	62.2	62.2					
Botswana	96.5	96.4	96.5	96.5	2	2	1	1	98.7	98.6	98.7	98.7					
Burkina Faso	53.7	75.6	78.4	78.4	35	27	26	26	44.7	72.3	75.9	75.9					
Burundi	73.9	86.1	88.0	88.0	23	14	14	14	70.2	85.6	88.0	88.0					
Cameroon	65.8	75.2	75.3	75.3	28	28	28	28	60.0	71.8	72.0	72.0					
Cape Verde	85.0	83.2	83.6	83.6	11	20	21	21	84.2	81.9	82.4	82.4					
Central African Republic	38.0	54.1	56.7	56.7	44	43	43	43	24.9	45.2	48.5	48.5					
Chad	22.9	28.7	35.2	35.2	52	51	51	51	5.8	13.1	21.3	21.3					
Comoros	61.4	83.1	68.1	68.1	33	21	35	35	54.4	81.8	62.9	62.9					
Congo (Brazzaville)	71.3	69.2	75.1	75.1	25	33	29	29	66.9	64.3	71.7	71.7					
Congo, Democratic Rep.	30.6	48.4	49.0	49.0	47	46	47	47	15.5	38.0	38.8	38.8					
Cote d'Ivoire	70.4	73.0	73.4	73.4	26	30	31	31	65.8	69.1	69.6	69.6					
Djibouti	48.6	61.1	61.3	61.3	36	40	41	41	38.3	54.0	54.3	54.3					
Equatorial Guinea	31.7	25.1	25.0	25.0	46	52	52	52	16.9	8.6	8.5	8.5					
Eritrea	89.2	96.7	96.0	96.0	6	1	3	3	89.5	99.0	98.1	98.1					
Ethiopia	22.7	34.4	38.1	38.1	53	50	50	50	5.6	20.3	25.0	25.0					
Gabon	36.3	49.4	49.9	49.9	45	45	46	46	22.7	39.3	39.9	39.9					
Gambia	77.4	88.3	86.9	86.9	19	11	17	17	74.6	88.4	86.6	86.6					
Ghana	77.2	85.6	85.4	85.4	20	16	19	19	74.4	85.0	84.7	84.7					
Guinea	46.1	54.3	57.7	57.7	39	42	42	42	35.1	45.5	49.7	49.7					
Guinea-Bissau	38.9	62.8	63.9	63.9	43	39	39	39	26.0	56.2	57.6	57.6					
Kenya	75.1	83.1	87.1	87.1	22	21	16	16	71.7	81.8	86.9	86.9					
Lesotho	76.9	84.3	87.8	87.8	21	19	15	15	74.0	83.3	87.8	87.8					
Liberia	44.2	48.2	50.8	50.8	40	47	45	45	32.7	37.8	41.0	41.0					
Madagascar	64.1	65.5	68.2	68.2	31	36	34	34	57.8	59.6	63.0	63.0					
Malawi	81.7	86.9	85.8	85.8	15	13	18	18	80.1	86.6	85.2	85.2					
Mali	41.6	69.6	70.3	70.3	42	31	32	.32	29.4	64.8	65.7	65.7					
Mauritania	53.8	82.3	83.2	83.2	34	23	22	22	44.8	80.8	81.9	81.9					
Mauritius	82.4	80.6	80.9	80.9	14	25	23	23	80.9	78.7	79.0	79.0					
Mozambique	65.2	73.5	79.1	79.1	29	20	25	25	59.2	69.7	76.8	76.8					
Nomibia	70.3	82.0	70.3	70.3	18	23	23	20	77.0	80.4	77.0	77.0					
Namioia	20.2	40.2	19.5	19.5	10	40	49	19	12.0	27.9	22.6	22.6					
Nigeria	29.5	40.5	44.1 EE 4	44.1 EE 4	40	49	40	40	0.1	27.0	32.0	32.0					
Rwanda	25.5	00.4	55.1	90.7	10	44	44	44	9.1	44.4	40.5	40.5					
Sao Tome and Principe	00.0	00.1	09.7	09.7	10	12	13	13	04.0	00.1	90.2	90.2					
Sao Tome and Emergel	82.8	90.5	91.2	91.2	13	9	9	9	81.4	91.2	92.0	92.0					
Sevehelles	04.4	76.5	70.4	70.4	30	20	20	20	05.2	75.0	75.9	75.9					
Sierra Leone	00.0	94.0	94.0	94.0	0	0	5	5	00.0	90.5	90.0	90.0					
Somalia	43.9	69.4	75.0	75.0	41	32	30	30	32.3	64.5	/1.6	/1.6					
South A frice	26.4	18.3	20.1	20.1	50	53	53	53	10.2	0.0	2.3	2.3					
South Africa	80.5	89.6	91.1	91.1	17	10	10	10	78.5	90.0	91.9	91.9					
Sudan	48.1	59.8	61.7	61.7	37	41	40	40	37.6	52.4	54.8	54.8					
Swaziland	83.7	92.3	91.0	91.0	12	8	11	11	82.6	93.4	91.8	91.8					
Tanzania	85.6	85.2	84.9	84.9	8	17	20	20	85.0	84.5	84.1	84.1					
Togo	64.1	67.8	69.3	69.3	31	34	33	33	57.8	62.5	64.4	64.4					
Uganda	46.5	64.7	65.5	65.5	38	37	38	38	35.6	58.6	59.6	59.6					
Zambia	81.3	85.2	89.8	89.8	16	17	12	12	79.5	84.5	90.3	90.3					
Zimbabwe	66.6	63.6	66.5	66.5	27	38	37	37	61.0	57.2	60.9	60.9					
Algeria	93.0	94.8	94.5	94.5	5	5	6	6	94.3	96.6	96.2	96.2					
Egypt	97.5	93.5	93.0	93.0	1	7	7	7	100.0	94.9	94.3	94.3					
Libya	87.5	85.8	91.9	91.9	7	15	8	8	87.4	85.2	92.9	92.9					
Morocco	94.6	95.3	96.1	96.1	4	4	2	2	96.3	97.2	98.2	98.2					
Tunisia	95.6	95.8	96.0	96.0	3	3	3	3	97.6	97.9	98.1	98.1					

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 latest UNAIDS and WHO's *Report on the Global AIDS Epidemic*, as reported in the World Bank's World Development Indicators (WDI) 2009.¹

The importance of combating HIV/AIDS is highlighted in the Millennium Development Goals as Goal 6, Target 7. The MDG Indicators show several other measures on outcomes and prevention that can be used to study this epidemic in greater depth. These include data on AIDS deaths, the HIV rate among pregnant women, and condom use.

Based on the most recent estimates for 2007, HIV prevalence averaged 5.3 percent across African countries. The highest rates on the continent were in southern Africa: in Swaziland, estimates suggest that more than 1 in 4 adults were HIV positive (26.1 percent). Estimates for Botswana (23.9 percent) and Lesotho (23.2 percent) approached those of Swaziland. Estimates suggest that almost 1 in 5 adults was HIV positive in South Africa (18.1 percent); about 15 percent in Namibia, Zimbabwe, and Zambia; and more than 10 percent in Mozambique (12.5 percent) and Malawi (11.9 percent). The lowest prevalence rates are estimated for Algeria, the Comoros, Madagascar, Morocco, and Tunisia (about 0.1 percent).

Technical Notes

Careful readers will note that the latest HIV estimates used in the 2009 Index tend to be *lower* than those used in the 2008 Ibrahim Index. The 2008 UNAIDS and WHO *Report on the Global AIDS Epidemic* revised its prevalence estimates significantly downward, as compared to its previous estimates.

Estimates are unavailable for Cape Verde, the Democratic Republic of the Congo, Egypt, Kenya, Libya, São Tomé and Príncipe, and the Seychelles.

¹ Last accessed 22 July 2009.

HIV PREVALENCE

(PERCENTAGE OF PEOPLE 15-49 YEARS OLD WHO ARE INFECTED WITH HIV)

UNAIDS and WHO's Report on the Global AIDS Epidemic (as Reported in WDI 2009)

							SCALED DATA:							
	RAW	DATA	1:		Rankee	ł			Scale	ed Overa	ull 0-100)		
-	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007		
Angola	1.5	2.0	2.1	2.1	19	21	22	23	94.9	93.0	92.6	92.6		
Benin	1.3	1.3	1.2	1.2	15	13	11	11	95.6	95.6	96.0	96.0		
Botswana	26.5	24.9	24.3	23.9	45	45	45	45	2.9	8.8	11.0	12.5		
Burkina Faso	2.1	1.7	1.7	1.6	21	19	17	15	92.6	94.1	94.1	94.5		
Burundi	3.8	2.4	2.2	2.0	29	24	24	22	86.4	91.5	92.3	93.0		
Cameroon	6.2	5.4	5.2	5.1	33	33	33	33	77.6	80.5	81.3	81.6		
Cape Verde														
Central African Republic	6.4	6.4	6.3	6.3	35	36	36	37	76.8	76.8	77.2	77.2		
Chad	3.3	3.5	3.5	3.5	26	29	29	30	88.2	87.5	87.5	87.5		
Comoros	0.1	0.1	0.1	0.1	1	1	1	1	100.0	100.0	100.0	100.0		
Congo (Brazzaville)	4.6	3.7	3.6	3.5	30	31	31	30	83.5	86.8	87.1	87.5		
Congo, Democratic Rep.														
Cote d'Ivoire	6.3	4.6	4.2	3.9	34	32	32	32	77.2	83.5	84.9	86.0		
Djibouti	3.0	3.1	3.1	3.1	24	25	26	26	89.3	89.0	89.0	89.0		
Equatorial Guinea	3.6	3.6	3.5	3.4	27	30	29	29	87.1	87.1	87.5	87.9		
Eritrea	1.2	1.2	1.3	1.3	13	11	12	12	96.0	96.0	95.6	95.6		
Ethiopia	2.4	2.1	2.1	2.1	22	23	22	23	91.5	92.6	92.6	92.6		
Gabon	5.3	6.0	6.0	5.9	32	34	35	35	80.9	78.3	78.3	78.7		
Gambia	0.8	0.9	0.9	0.9	11	10	9	9	97.4	97.1	97.1	97.1		
Ghana	2.4	2.0	2.0	1.9	22	21	21	21	91.5	93.0	93.0	93.4		
Guinea	1.1	1.5	1.6	1.6	12	15	15	15	96.3	94.9	94.5	94.5		
Guinea-Bissau	1.7	1.9	1.9	1.8	20	20	20	20	94.1	93.4	93.4	93.8		
Kenya														
Lesotho	23.9	23.4	23.3	23.2	43	44	44	44	12.5	14.3	14.7	15.1		
Liberia	1.4	1.5	1.6	1.7	16	15	15	17	95.2	94.9	94.5	94.1		
Madagascar	0.1	0.1	0.1	0.1	1	1	1	1	100.0	100.0	100.0	100.0		
Malawi	13.5	12.3	12.1	11.9	39	39	38	38	50.7	55.1	55.9	56.6		
Mali	1.4	1.5	1.5	1.5	16	15	14	14	95.2	94.9	94.9	94.9		
Mauritania	0.6	0.8	0.8	0.8	9	7	7	7	98.2	97.4	97.4	97.4		
Mauritius	0.2	1.2	1.7	1.7	6	11	17	17	99.6	96.0	94.1	94.1		
Mozambique	9.5	12.2	12.3	12.5	38	38	39	39	65.4	55.5	55.1	54.4		
Namibia	14.0	15.3	15.2	15.3	40	41	41	41	48.9	44.1	44.5	44.1		
Niger	0.7	0.8	0.8	0.8	10	7	7	7	97.8	97.4	97.4	97.4		
Nigeria	3.1	3.2	3.1	3.1	25	27	26	26	89.0	88.6	89.0	89.0		
Rwanda	4.7	3.1	2.9	2.8	31	25	25	25	83.1	89.0	89.7	90.1		
Sao Tome and Principe														
Senegal	0.4	0.8	0.9	1.0	7	7	9	10	98.9	97.4	97.1	96.7		
Seychelles														
Sierra Leone	1.2	1.6	1.7	1.7	13	18	17	17	96.0	94.5	94.1	94.1		
Somalia	0.4	0.5	0.5	0.5	7	6	6	6	98.9	98.5	98.5	98.5		
South Africa	15.9	18.2	18.2	18.1	42	42	43	43	41.9	33.5	33.5	33.8		
Sudan	1.4	1.4	1.4	1.4	16	14	13	13	95.2	95.2	95.2	95.2		
Swaziland	25.7	26.4	26.2	26.1	44	46	46	46	5.9	3.3	4.0	4.4		
Tanzania	7.1	6.4	6.3	6.2	36	36	36	36	74.3	76.8	77.2	77.6		
Togo	3.6	3.4	3.3	3.3	27	28	28	28	87.1	87.9	88.2	88.2		
Uganda	8.5	6.1	5.7	5.4	37	35	34	34	69.1	77.9	79.4	80.5		
Zambia	15.5	15.0	15.0	15.2	41	40	40	40	43.4	45.2	45.2	44.5		
Zimbabwe	27.3	19.0	17.2	15.3	46	43	42	41	0.0	30.5	37.1	44.1		
Algeria	0.1	0.1	0.1	0.1	1	1	1	1	100.0	100.0	100.0	100.0		
Egypt														
Libya														
Morocco	0.1	0.1	0.1	0.1	1	1	1	1	100.0	100.0	100.0	100.0		
Tunisia	0.1	0.1	0.1	0.1	1	1	1	1	100.0	100.0	100.0	100.0		

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 (WHO)'s *Global Tuberculosis Control Report*, as reported in the World Bank's World Development Indicators (WDI) 2009. Figures represent "the estimated number of new pulmonary, smear positive, and extra-pulmonary tuberculosis cases."¹

Estimated incidence for 2007 ranged from a low of 17.2 per 100,000 people (Libya) to a high of 1,198.0 per 100,000 people (Swaziland). Environmental factors clearly played a role in TB incidence. After Swaziland, the country with the highest TB incidence was South Africa (948.2). Neighboring Zimbabwe, Namibia, Botswana, and Lesotho also showed high incidences, along with Djibouti. In addition to Libya, the countries with the lowest incidences included Egypt, Mauritius, Tunisia, and the Seychelles.

The Millennium Development Goals (MDGs) address tuberculosis under Target 8. MDG 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 Last accessed 22 July 2009.

INCIDENCE OF TUBERCULOSIS (PER 100,000 PEOPLE) WHO's Global Tuberculosis Control Report, as Reported in the WDI 2009

					SCAL	ED D	ATA:					
	RAW	DATA	1:		Ranke	d			Scaled	Overal	ll 0-100	
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007
Angola	249.8	275.5	281.0	286.5	26	26	26	25	80.3	78.1	77.7	77.2
Benin	84.7	89.0	89.9	90.9	8	8	8	8	94.3	93.9	93.8	93.8
Botswana	640.4	770.3	750.8	731.4	49	48	48	48	47.2	36.2	37.9	39.5
Burkina Faso	198.0	238.2	232.2	226.2	16	18	17	17	84.7	81.3	81.8	82.3
Burundi	321.3	386.5	376.8	367.0	33	35	37	36	74.2	68.7	69.5	70.4
Cameroon	167.8	201.9	196.8	191.7	14	14	14	14	87.2	84.4	84.8	85.2
Cape Verde	160.3	153.3	151.9	150.5	13	12	12	12	87.9	88.5	88.6	88.7
Central African Republic	302.1	363.4	354.2	345.1	32	33	33	33	75.9	70.7	71.5	72.2
Chad	261.5	314.6	306.7	298.7	28	29	27	28	79.3	74.8	75.5	76.2
Comoros	56.3	45.7	43.8	42.0	7	6	6	6	96.7	97.6	97.7	97.9
Congo (Brazzaville)	353.0	424.6	413.8	403.1	39	42	41	40	71.6	65.5	66.4	67.3
Congo, Democratic Rep.	342.9	412.5	402.1	391.7	37	39	39	38	72.4	66.5	67.4	68.3
Cote d'Ivoire	368.2	442.9	431.7	420.5	40	43	43	42	70.3	63.9	64.9	65.8
Djibouti	708.4	781.3	796.8	812.5	52	49	50	51	41.5	35.3	34.0	32.6
Equatorial Guinea	224.1	269.5	262.7	255.9	21	25	22	21	82.5	78.6	79.2	79.8
Eritrea	84.9	92.3	93.8	95.4	9	9	9	10	94.3	93.6	93.5	93.4
Ethiopia	331.1	398.3	388.3	378.2	34	37	38	37	73.4	67.7	68.6	69.4
Gabon	254.4	324.8	365.6	406.4	27	31	34	41	79.9	73.9	70.5	67.0
Gambia	225.3	248.5	253.4	258.4	22	20	21	22	82.4	80.4	80.0	79.6
Ghana	210.9	205.1	204.0	202.9	18	15	15	15	83.6	84.1	84.2	84.3
Guinea	200.1	259.1	272.9	287.4	17	22	25	26	84.5	79.5	78.3	77.1
Guinea-Bissau	191.7	211.4	215.6	219.9	15	16	16	16	85.2	83.6	83.2	82.8
Kenya	404.9	406.3	370.5	352.6	44	38	36	35	67.2	67.0	70.1	71.6
Lesotho	553.1	639.0	637.8	636.6	46	47	47	47	54.6	47.3	47.4	47.5
Liberia	241.6	266.5	271.7	277.1	24	24	24	24	81.0	78.9	78.4	78.0
Madagascar	217.4	240.8	245.7	250.8	20	19	19	20	83.0	81.1	80.6	80.2
Malawi	424.8	391.0	368.4	345.7	45	36	35	34	65.5	68.3	70.3	72.2
Mali	300.0	313.4	316.1	318.9	31	28	30	31	76.0	74.9	74.7	74.4
Mauritania	277.0	305.5	311.5	317.7	30	27	29	30	78.0	75.6	75.1	74.6
Mauritius	24.4	22.9	22.7	22.4	2	3	3	3	99.4	99.5	99.5	99.6
Mozambique	377.7	454 3	442.8	431 3	43	44	44	44	69.5	63.0	64.0	64.9
Nomibie	671.4	807.6	787.2	766.8	50	50	49	49	44.6	33.1	34.8	36.5
Namioia	152.0	167.6	171.0	174.2	12	12	49	49	44.0	97.2	97.0	96.7
Nigeria	070.4	107.0	210.0	210.7	12	13	13	20	70.4	70.7	74.4	75.4
Rwanda	2/2.1	327.3	319.0	307.0	29	32	40	29	70.4	13.1	74.4	75.1
Sao Tome and Principe	347.0	410.1	407.0	397.0	30	41	40	39	72.0	00.0	00.9	07.0
Sao Tome and Emerge	114.0	104.6	102.8	101.1	11	11	11	11	91.8	92.6	92.8	92.9
Sevehalles	230.0	201.1	200.3	271.5	23	23	23	23	01.4	79.5	70.9	76.5
Sierra Leone	30.5	53.5	52.9	52.4	5	5	5	5	90.4	90.0	90.7	90.7
Somalia	377.0	508.9	540.4	5/3.9	42	45	45	46	69.5	58.4	55.7	52.9
South A frica	248.7	248.7	248.7	248.7	25	21	20	19	80.4	80.4	80.4	80.4
South Africa	575.8	925.2	940.2	948.2	47	52	52	52	52.7	23.1	21.8	21.2
Sudan	212.1	233.9	238.6	243.3	19	17	18	18	83.5	81.6	81.3	80.9
Swaziland	801.5	1141.0	1169.5	1198.0	53	53	53	53	33.6	4.8	2.4	0.0
Tanzania	339.2	324.5	310.9	297.4	35	30	28	27	72.7	74.0	75.1	76.3
logo	374.2	412.7	420.9	429.2	41	40	42	43	69.8	66.5	65.8	65.1
Uganda	340.2	369.6	349.6	329.6	36	34	32	32	72.6	70.2	71.8	73.5
Zambia	601.9	587.6	546.8	506.1	48	46	46	45	50.5	51.7	55.1	58.6
Zimbabwe	684.8	823.7	802.9	782.1	51	51	51	50	43.5	31.7	33.5	35.2
Algeria	47.8	53.9	55.2	56.6	6	7	7	7	97.4	96.9	96.8	96.7
Egypt	27.4	22.5	21.7	21.0	4	2	2	2	99.1	99.6	99.6	99.7
Libya	22.4	18.4	17.8	17.2	1	1	1	1	99.6	99.9	100.0	100.0
Morocco	111.9	97.0	94.3	91.6	10	10	10	9	92.0	93.2	93.5	93.7
Tunisia	25.4	24.3	25.1	26.0	3	4	4	4	99.3	99.4	99.3	99.3

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 Index uses two indicators to assess this area, the number of physicians per 1,000 people and the number of nurses and midwifery personnel per 1,000 people. Although the Index includes only these two key indicators, a more in-depth study of health care provision should obviously also look into other measures, such as the number of community health workers and clinics, and the geographical distribution of these resources. Analysts should also consider the limits of these figures and whether registries can be expected to be up-to-date.¹

Most of our data on the size of the health care workforce in each country are from WHO's Statistical Information System, as reported in the World Bank's World Development Indicators (WDI) 2009.² WHO's *World Health Statistics* 2009 was also consulted. In addition, Index in-country researchers collected data on these indicators from national ministries of health and other agencies.

A key difficulty with the direct use of locally collected data for the health care workforce and other indicators is that reported figures may not be measured in comparable ways across countries. For instance, in some countries, official local figures include only physicians employed in state-run facilities, while in others those in private practice are also included. We would need to collect considerably more information in order to be confident of cross-national comparisons. Thus, for the time being, in the interest of data comparability across countries, the 2009 Index of African Governance uses the WHO Statistical Information System (WHOSIS)'s estimates, which are available for most countries for 2004. The year 2004 is the latest for which estimates for almost every country are available. In addition, this note makes available new data compiled by our in-country researchers, generally for 2007 or 2008.

The available data suggest considerable variation in the provision of health care across the continent. On average across countries, there are just under 0.30 physicians and 1.43 nurses and midwifery personnel per 1,000 people. Malawi, Niger, and Tanzania have the lowest recorded numbers of physicians per 1,000 people (0.02), but better numbers for nurses and midwifery personnel (0.59, 0.23, and 0.37 per 1,000, respectively). Burundi and Somalia have the lowest recorded rates for nurses and midwifery personnel (0.19 per 1,000) and among the lowest for physicians (0.03 and 0.04 per 1,000, respectively). At the other end of the spectrum, Egypt has the highest rate for physicians by far (2.43 per 1,000) and the Seychelles has the highest rate for nurses and midwifery personnel (7.93 per 1,000).

Further information on the health care workforce can be found in WHO's *World Health Statistics* 2009 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.

Technical Notes

In order to make these data as comparable as possible we use estimates for 2004 in the Index, even if (as in a few cases) more recent estimates are available. Data are for 2004, with the following exceptions:

- Estimates from the following countries are for 2003: Ethiopia, the Gambia, Lesotho, and Nigeria.
- Estimates from the following countries are for 2002: Algeria, Kenya (nurses and midwives only), and Tanzania.

¹ 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, Institute for Health Metrics and Evaluation, 7 August 2008.

² Last accessed 22 July 2009.

- Egypt: from 2005.
- Somalia: from 1997.
- Sudan: nurses and midwives figures are from 2006.

Locally Reported Statistics

In the latest round of in-country research, Index researchers focused on collecting official statistics from national agencies for the years 2007 and 2008. A sampling of the information reported by our in-country researchers is summarized below, along with any statistics from WHO or the WDI that are more recent than the 2004 figures used in this Index of African Governance.³

- Burkina Faso:
 - 831 physicians, or 0.06 per 1,000 (2007), and 911 physicians, or 0.06 per 1,000 (2008), based on information obtained from the head of the human resource department of the Ministry of Health. According to the source, this figure is based on registered doctors only (i.e., only the public sector), and includes 442 generalists and 389 specialists in 2007 and 515 generalists and 398 specialists in 2008. The 2004 WHOSIS figure is 708.
 - 7,141 nurses and midwifery personnel, or 0.48 per 1,000 (2007), and 7,701, or 0.52 per 1,000 (2008), based on the same source, and also for the public sector only. In 2007, there were 6,184 nurses and 957 midwives. In 2008, there were 6,685 nurses and 1,016 midwives. The 2004 WHOSIS figure is 6,557.
- Burundi:
 - 193 physicians, or 0.02 per 1,000 (2007), and 166 physicians, or 0.02 per 1,000 (2008), based on information obtained from Barnabé Mahenehene, Director of Human Resources, Ministry of Public Health, based on a 2007–2008 survey. The 2004 WHOSIS figure is 200.
- Cape Verde:
 - 242 physicians, or 0.48 per 1,000 (2005), based on figures from the GEP-Ministério da Saúde. The 2004 WHOSIS figure is 231.
 - 471 nurses, or 0.93 per 1,000 (2005), based on the same source. The 2004 WHOSIS figure is 410.
- Comoros:
 - 123 physicians, or 0.20 per 1,000 (2007), and 133 physicians, or 0.21 per 1,000 (2008), based on information obtained from Mr. Bounou, Ministry of Public Health, based on Ministère de la santé publique, Base de données sur le profil du personnel de la santé 2007 (Moroni, 2007). The 2004 WHOSIS figure is 115.
 - 927 nurses and midwifery personnel, or 1.48 per 1,000 (2007), and 987, or 1.57 per 1,000 (2008), based on same source. The 2004 WHOSIS figure is 588.
- Côte d'Ivoire:
 - 3,614 physicians (of which 2,824 work in the public sector), or 0.19 per 1,000 (2007), from *Document de Stratégie de Réduction de la Pauvreté* (Abidjan, January 2009), 55. The 2004 WHOSIS figure is 2,081.
 - 11,270 nurses and midwifery personnel, or 0.58 per 1,000 (2007), based on same source. Of these, 8,580 were nurses (7,407 in the public sector) and 2,690 were midwives (2,506 in the public sector). The 2004 WHOSIS figure is 10,180.
- Djibouti:
 - 0.18 physicians per 1,000 (2005), from WDI 2009.
- Ethiopia:
 - 1,808 physicians, or 0.02 per 1,000 (2007), and 2,085 physicians, or 0.03 per 1,000 (2008), based on information obtained from the Ministry of Health, *Health and Health Related Indicators* (Addis Ababa,

³ Rates per 1,000 people are calculated using population estimates from the World Bank's World Development Indicators (WDI) 2009. Population estimates for 2008 were not available; 2007 estimates were used for 2008. Note that additional data were also collected by our in-country researchers, but we tend to report here only those figures that appear to be measured in a manner that is at least broadly consistent with the WHOSIS's method.

2007), 3. Figures are reportedly calculated from regional annual reports and information from the Ministry of Health and specialized hospitals. The 2003 WHOSIS figure is 1,936.

- 18,146 nurses, or 0.23 per 1,000 (2007), and 16,765 nurses, or 0.21 per 1,000 (2008), based on same source. Number of midwives was not available. The 2003 WHOSIS figure is 15,544.
- Gambia:
 - 70 physicians in the public sector only, or 0.04 per 1,000 (2007 and 2008), based on information obtained from the Department of State for Health. The 2003 WHOSIS figure is 156.
 - 410 nurses and midwifery personnel in the public sector only, or 0.24 per 1,000 (2007), and 651 nurses and midwifery personnel in the public sector, or 0.38 per 1,000 (2008), based on the same source. Of these, in 2007, 274 were nurses and 136 were midwives. In 2008, 434 were nurses and 217 midwives. The 2003 WHOSIS figure is 1,881.
- Kenya:
 - 6,271 doctors, or 0.17 per 1,000 (2007), based on information from the Health Management Information System, 2007, as published in Kenya National Bureau of Statistics, *Statistical Abstract* 2008 (Nairobi, 2008), 209. Figures for earlier years are: 4,813 (2003), 5,016 (2004), 5,446 (2005), and 5,889 (2006). The 2002 WHOSIS figure is 4,506.
 - 44,115 nurses (both "enrolled" and "registered"), or 1.18 per 1,000 (2007), based on the same source. The 2002 WHOSIS figure is 37,113.
- Lesotho:
 - 132 general practitioners, or 0.07 per 1,000 (2007), and 131 general practitioners, or 0.07 per 1,000 (2008), based on information obtained from Deborah N. Ntšaba, Registrar of the Lesotho Medical, Dental and Pharmacy Council. The 2003 WHOSIS figure is 89.
- Malawi:
 - 291 physicians, or 0.02 per 1,000 (2007), and 342 physicians, or 0.02 per 1,000 (2008), based on Medical Council of Malawi, *Malawi Government Gazette* (16 November 2007), 183–189, and *Malawi Government Gazette* (21 November 2008), 319–329. The Medical Council of Malawi is mandated to register every physician practicing in Malawi, whether Malawian or not. The 2004 WHOSIS figure is 266.
- Mali:
 - 1,264 physicians, or 0.10 per 1,000 (2007), based on Direction Nationale de la Statistique et de l'Informatique, Annuaire statistique du Mali 2007 (Bamako, 2008), 39, and Direction Nationale de la Santé, Annuaire SLIS 2007 (Bamako, 2008), 12–13. The total figure is obtained by adding up the individual data for medical professions from the two different documents. For 2008, 1,275 physicians, or 0.10 per 1,000, based on information obtained from Sékou Diarra, Division Statistiques, Direction Nationale de la Santé, Ministère de la Santé. The 2004 WHOSIS figure is 1,053.
- Mauritania:
 - 426 physicians, or 0.14 per 1,000 (2007), based on Ministère des Affaires Economiques et du Développement, Office National de la Statistique, Annuaire Statistique 2007 (Nouakchott, 2008), 33. The 2004 WHOSIS figure is 313.
 - 2,150 nurses and midwifery personnel, or 0.69 per 1,000 (2007), based on statistics from the Ministry of Health from presentation by Raymond Najjar, "Fistules Obstétricales: Programme de prise en charge en Mauritanie," presented at a regional conference, Nouakchott, 10–13 December 2007. The 2004 WHOSIS figure is 1,893.
- Mauritius:
 - 1,444 physicians, or 1.15 per 1,000 (2007), based on Ministry of Finance and Economic Development, Central Statistics Office, Annual Digest of Statistics 2007 (Port Louis, 2008), 63. The 2004 WHOSIS figure is 1,303.
 - 3,300 qualified nurses and midwives, or 2.62 per 1,000 (2007), from the same source. Of these, 3,093 were government employees and 207 private. The 2004 WHOSIS figure is 4,604.

- Mozambique:
 - 692 physicians, or 0.03 per 1,000 (2007), and 735 physicians, or 0.03 per 1,000 (2008), based on information obtained from Gertrudes Machatine, Ministry of Health. The 2004 WHOSIS figure is 514.
- Namibia:
 - 846 physicians (medical practitioners), or 0.40 per 1,000 (2007), and 849 physicians (medical practitioners), or 0.40 per 1,000 (2008), based on information obtained from Erna Barlow, Registrar, Health Professional Council of Namibia. The 2004 WHOSIS figure is 598.
 - 3,382 registered nurses and midwifery personnel, or 1.63 per 1,000 (2008), based on the same source. Of which, 3,343 were nurses and 2,655 midwives. There was no database during 2007; all the data were compiled in an electronic database in 2008. The 2004 WHOSIS figure is 6,145.
- Niger:
 - 489 physicians, or 0.03 per 1,000 (2007), based on information obtained from the Institut National de la Statistique (INS), *Le Niger en Chiffre* 2008 (Niamey, 2008). The 2004 WHOSIS figure is 296.
- Nigeria:
 - 42,632 physicians, or 0.29 per 1,000 (2006), based on National Bureau of Statistics, "The Nigerian Statistical Fact Sheets on Economic and Social Development," (Abuja, 2007), 34. The 2003 WHOSIS figure is 34,923.
 - 176,256 nurses and midwifery personnel, or 1.19 per 1,000 (2006), based on the same source. The 2003 WHOSIS figure is 210,306.
- São Tomé and Príncipe:
 - 91 physicians working in government facilities, or 0.58 per 1,000 (2008), based on information obtained from Agostinho Miguel de Sousa, Director, Department of Statistics. The 2004 WHOSIS figure is 81.
- Seychelles:
 - 91 physicians (medical practitioners), or 1.07 per 1,000, based on information obtained from the National Statistics Bureau. The 2004 WHOSIS figure is 121.
 - 411 nurses, or 4.83 per 1,000, based on the same source. The 2004 WHOSIS figure for nurses and midwifery personnel is 634.
- Sierra Leone:
 - 183 physicians, or 0.03 per 1,000 (2008), including 129 in the public sector and 54 working in the private sector. The figure for the public sector is based on information from Anthony Sandi, Human Resource Manager, Ministry of Health and Sanitation. The figure for the private sector is based on the address book of the Sierra Leone Private Medical Practitioners Union, as provided by Ishmael Peters, head of the Union. This estimate excludes practitioners in the voluntary sectors. The 2004 WHOSIS figure is 168.
 - 1,551 nurses and midwifery personnel employed by the Ministry of Health, or 0.27 per 1,000 (2007), based on information from Anthony Sandi. In 2008, 2,449 nurses and midwifery personnel, or 0.42 per 1,000, based on the Stock of Medical personnel records from the Ministry of Health and Sanitation. The figure reportedly refers to those in the public sector only. The 2004 WHOSIS estimate is 2,510.
- South Africa:
 - 34,324 physicians, or 0.72 per 1,000 (2007), and 34,687, or 0.72 per 1,000 (2008), based on Marco MacFarlane, "Health and Welfare," *South Africa Survey*, 2007/2008 (Johannesburg, 2008), 39. The 2004 WHOSIS figure is 34,829.
 - 103,792 nurses and midwifery personnel, or 2.17 per 1,000 (2007), based on South African Government Communications and Information Service, *South Africa Yearbook* 2008/2009 (Pretoria, 2009), 318. The 2004 WHOSIS figure is 184,459.
- Sudan:
 - 0.3 physicians per 1,000 (2006), from WDI 2009.

- Togo:
 - 491 physicians, or 0.07 per 1,000 (2007), based on Division Information, Statistiques, Etudes et Recherche (DISER) du Ministère de la Santé, *Principaux Indicateurs de Santé (Année 2007)* (Lomé, 2008), 9. The 2004 WHOSIS figure is 225.
 - 1,294 nurses and midwifery personnel, or 0.20 per 1,000 (2007), based on the same source. Of these, 894 were nurses and 400 midwives. The 2004 WHOSIS figure is 1,937.
- Zimbabwe:
 - 665 physicians, or 0.05 per 1,000 (2007), and 666 physicians, or 0.05 per 1,000 (2008), according to information provided by Willard Zambezi, Registrar, Zimbabwe Health Professions Authority. The 2004 WHOSIS figure is 2,086 physicians.

PHYSICIANS PER 1,000 PEOPLE WHO's Statistical Information System, as Reported in WDI 2009

					SCAL	ED D	ATA:					
	RAW	DATA	۱:		Ranke	d			Scale	l Overa	10-100)
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007
Angola	0.08	0.08	0.08	0.08	33	33	33	33	2.5	2.5	2.5	2.5
Benin	0.04	0.04	0.04	0.04	42	42	42	42	0.8	0.8	0.8	0.8
Botswana	0.40	0.40	0.40	0.40	11	11	11	11	15.8	15.8	15.8	15.8
Burkina Faso	0.05	0.05	0.05	0.05	38	38	38	38	1.2	1.2	1.2	1.2
Burundi	0.03	0.03	0.03	0.03	46	46	46	46	0.4	0.4	0.4	0.4
Cameroon	0.19	0.19	0.19	0.19	19	19	19	19	7.1	7.1	7.1	7.1
Cape Verde	0.49	0.49	0.49	0.49	9	9	9	9	19.5	19.5	19.5	19.5
Central African Republic	0.08	0.08	0.08	0.08	33	33	33	33	2.5	2.5	2.5	2.5
Chad	0.04	0.04	0.04	0.04	42	42	42	42	0.8	0.8	0.8	0.8
Comoros	0.15	0.15	0.15	0.15	23	23	23	23	5.4	5.4	5.4	5.4
Congo (Brazzaville)	0.20	0.20	0.20	0.20	18	18	18	18	7.5	7.5	7.5	7.5
Congo, Democratic Rep.	0.11	0.11	0.11	0.11	29	29	29	29	3.7	3.7	3.7	3.7
Cote d'Ivoire	0.12	0.12	0.12	0.12	26	26	26	26	4.1	4.1	4.1	4.1
Djibouti	0.18	0.18	0.18	0.18	20	20	20	20	6.7	6.7	6.7	6.7
Equatorial Guinea	0.30	0.30	0.30	0.30	12	12	12	12	11.6	11.6	11.6	11.6
Eritrea	0.05	0.05	0.05	0.05	38	38	38	38	1.2	1.2	1.2	1.2
Ethiopia	0.03	0.03	0.03	0.03	46	46	46	46	0.4	0.4	0.4	0.4
Gabon	0.29	0.29	0.29	0.29	14	14	14	14	11.2	11.2	11.2	11.2
Gambia	0.11	0.11	0.11	0.11	29	29	29	29	3.7	3.7	3.7	3.7
Ghana	0.15	0.15	0.15	0.15	23	23	23	23	5.4	5.4	5.4	5.4
Guinea	0.11	0.11	0.11	0.11	29	29	29	29	3.7	3.7	3.7	3.7
Guinea-Bissau	0.12	0.12	0.12	0.12	26	26	26	26	4.1	4.1	4.1	4.1
Kenya	0.14	0.14	0.14	0.14	25	25	25	25	4.9	4.9	4.9	4.9
Lesotho	0.05	0.05	0.05	0.05	38	38	38	38	1.2	1.2	1.2	1.2
Liberia	0.03	0.03	0.03	0.03	46	46	46	46	0.4	0.4	0.4	0.4
Madagascar	0.29	0.29	0.29	0.29	14	14	14	14	11.2	11.2	11.2	11.2
Malawi	0.02	0.02	0.02	0.02	51	51	51	51	0.0	0.0	0.0	0.0
Mali	0.08	0.08	0.08	0.08	33	33	33	33	2.5	2.5	2.5	2.5
Mauritania	0.11	0.11	0.11	0.11	29	29	29	29	3.7	3.7	3.7	3.7
Mauritius	1.06	1.06	1.06	1.06	6	6	6	6	43.2	43.2	43.2	43.2
Mozambique	0.03	0.03	0.03	0.03	46	46	46	46	0.4	0.4	0.4	0.4
Namibia	0.30	0.30	0.30	0.30	12	12	12	12	11.6	11.6	11.6	11.6
Niger	0.02	0.02	0.02	0.02	51	51	51	51	0.0	0.0	0.0	0.0
Nigeria	0.28	0.28	0.28	0.28	16	16	16	16	10.8	10.8	10.8	10.8
Rwanda	0.05	0.05	0.05	0.05	38	38	38	38	12	12	12	12
Sao Tome and Principe	0.00	0.49	0.49	0.49	9	9	9	9	19.5	19.5	19.5	19.5
Senegal	0.06	0.06	0.06	0.06	37	37	37	37	1 7	17	17	17
Sevchelles	1 51	1 51	1 51	1 51	2	2	2	2	61.8	61.8	61.8	61.8
Sierra Leone	0.03	0.03	0.03	0.03	46	16	46	16	0.4	0.4	0.4	0.4
Somalia	0.03	0.03	0.03	0.03	40	40	40	40	0.4	0.4	0.4	0.9
South Africa	0.77	0.77	0.77	0.77	7	72	7	7	31.1	31.1	31.1	31.1
Sudan	0.22	0.22	0.22	0.22	17	17	17	17	83	83	83	83
Swaziland	0.16	0.22	0.16	0.16	21	21	21	21	5.9	5.9	5.9	5.9
Tanzania	0.02	0.70	0.02	0.02	51	51	51	51	0.0	0.0	0.0	0.0
Tanzailia	0.02	0.02	0.02	0.02	40	40	42	40	0.0	0.0	0.0	0.0
10go	0.04	0.04	0.04	0.04	42	42	42	72	0.0	2.5	2.5	2.5
Uganda Zambia	0.10	0.00	0.10	0.00	33	33	25	26	2.0	2.0	2.0	2.0
	0.12	0.12	0.12	0.12	20	20	20	20	4.1	4.1	4.1	4.1
Zimbabwe	0.76	0.76	0.70	0.10	21	21	21	21	5.ŏ	J.ð	ο.σ	5.8
Aigella	1.13	1.13	1.13	1.13	5	5	5	5	46.1	46.1	46.1	46.1
Egypt	2.43	2.43	2.43	2.43	1	1	1	7	100.0	100.0	100.0	100.0
Libya	1.25	1.25	1.25	1.25	4	4	4	4	51.0	51.0	51.0	51.0
Morocco	0.57	0.51	0.57	0.51	ð	ð	ð	8	20.3	20.3	20.3	20.3
rumsia	1.34	1.34	1.34	1.34	3	3	3	3	54.8	54.8	54.8	54.8

NURSING AND MIDWIFERY PERSONNEL PER 1,000 PEOPLE

WHO's Statistical Informtaion System, as Reported in WDI 2009

					SCAL	ED D	ATA:					
	RAW	DATA	۱:		Ranke	ed			Scaled Overall 0-100			
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007
Angola	1.35	1.35	1.35	1.35	16	16	16	16	15.0	15.0	15.0	15.0
Benin	0.84	0.84	0.84	0.84	23	23	23	23	8.4	8.4	8.4	8.4
Botswana	2.65	2.65	2.65	2.65	10	10	10	10	31.8	31.8	31.8	31.8
Burkina Faso	0.49	0.49	0.49	0.49	38	38	38	38	3.9	3.9	3.9	3.9
Burundi	0.19	0.19	0.19	0.19	52	52	52	52	0.0	0.0	0.0	0.0
Cameroon	1.60	1.60	1.60	1.60	15	15	15	15	18.2	18.2	18.2	18.2
Cape Verde	0.87	0.87	0.87	0.87	22	22	22	22	8.8	8.8	8.8	8.8
Central African Republic	0.41	0.41	0.41	0.41	42	42	42	42	2.8	2.8	2.8	2.8
Chad	0.28	0.28	0.28	0.28	49	49	49	49	1.2	1.2	1.2	1.2
Comoros	0.74	0.74	0.74	0.74	25	25	25	25	7.1	7.1	7.1	7.1
Congo (Brazzaville)	0.96	0.96	0.96	0.96	19	19	19	19	9.9	9.9	9.9	9.9
Congo, Democratic Rep.	0.53	0.53	0.53	0.53	35	35	35	35	4.4	4.4	4.4	4.4
Cote d'Ivoire	0.60	0.60	0.60	0.60	32	32	32	32	5.3	5.3	5.3	5.3
Djibouti	0.42	0.42	0.42	0.42	41	41	41	41	3.0	3.0	3.0	3.0
Equatorial Guinea	0.53	0.53	0.53	0.53	35	35	35	35	4.4	4.4	4.4	4.4
Eritrea	0.58	0.58	0.58	0.58	34	34	34	34	5.0	5.0	5.0	5.0
Ethiopia	0.22	0.22	0.22	0.22	51	51	51	51	0.4	0.4	0.4	0.4
Gabon	5.02	5.02	5.02	5.02	3	3	3	3	62.4	62.4	62.4	62.4
Gambia	1.32	1.32	1.32	1.32	17	17	17	17	14.6	14.6	14.6	14.6
Ghana	0.92	0.92	0.92	0.92	20	20	20	20	9.4	9.4	9.4	9.4
Guinea	0.51	0.51	0.51	0.51	37	37	37	37	4.1	4.1	4.1	4.1
Guinea-Bissau	0.70	0.70	0.70	0.70	28	28	28	28	6.6	6.6	6.6	6.6
Kenya	1.18	1.18	1.18	1.18	18	18	18	18	12.8	12.8	12.8	12.8
Lesotho	0.62	0.62	0.62	0.62	30	30	30	30	5.6	5.6	5.6	5.6
Liberia	0.30	0.30	0.30	0.30	48	48	48	48	1.4	1.4	1.4	1.4
Madagascar	0.32	0.32	0.32	0.32	45	45	45	45	1.7	1.7	1.7	1.7
Malawi	0.59	0.59	0.59	0.59	33	33	33	33	5.2	5.2	5.2	5.2
Mali	0.62	0.62	0.62	0.62	30	30	30	30	5.6	5.6	5.6	5.6
Mauritania	0.64	0.64	0.64	0.64	29	29	29	29	5.8	5.8	5.8	5.8
Mauritius	3.73	3.73	3.73	3.73	6	6	6	6	45.7	45.7	45.7	45.7
Mozambique	0.32	0.32	0.32	0.32	45	45	45	45	1.7	1.7	1.7	1.7
Namibia	3.06	3.06	3.06	3.06	8	8	8	8	37.1	37.1	37.1	37.1
Niger	0.23	0.23	0.23	0.23	50	50	50	50	0.5	0.5	0.5	0.5
Nigeria	1.70	1.70	1.70	1.70	14	14	14	14	19.5	19.5	19.5	19.5
Rwanda	0.43	0.43	0.43	0.43	40	40	40	40	3.1	3.1	3.1	3.1
Sao Tome and Principe	1.87	1.87	1.87	1.87	13	13	13	13	21.7	21.7	21.7	21.7
Senegal	0.32	0.32	0.32	0.32	45	45	45	45	1.7	1.7	1.7	1.7
Seychelles	7.93	7.93	7.93	7.93	1	1	1	1	100.0	100.0	100.0	100.0
Sierra Leone	0.49	0.49	0.49	0.49	38	38	38	38	3.9	3.9	3.9	3.9
Somalia	0.19	0.19	0.19	0.19	52	52	52	52	0.0	0.0	0.0	0.0
South Africa	4.08	4.08	4.08	4.08	5	5	5	5	50.3	50.3	50.3	50.3
Sudan	0.90	0.90	0.90	0.90	21	21	21	21	9.2	9.2	9.2	9.2
Swaziland	6.30	6.30	6.30	6.30	2	2	2	2	78.9	78.9	78.9	78.9
Tanzania	0.37	0.37	0.37	0.37	44	44	44	44	2.3	2.3	2.3	2.3
Togo	0.39	0.39	0.39	0.39	43	43	43	43	2.6	2.6	2.6	2.6
Uganda	0.71	0.71	0.71	0.71	27	27	27	27	6.7	6.7	6.7	6.7
Zambia	2.01	2.01	2.01	2.01	12	12	12	12	23.5	23.5	23.5	23.5
Zimbabwe	0.72	0.72	0.72	0.72	26	26	26	26	6.8	6.8	6.8	6.8
Algeria	2.23	2.23	2.23	2.23	11	11	11	11	26.4	26.4	26.4	26.4
Egypt	3.35	3.35	3.35	3.35	7	7	7	7	40.8	40.8	40.8	40.8
Libya	4.80	4.80	4.80	4.80	4	4	4	4	59.6	59.6	59.6	59.6
Morocco	0.78	0.78	0.78	0.78	24	24	24	24	7.6	7.6	7.6	7.6
Tunisia	2.87	2.87	2.87	2.87	9	9	9	9	34.6	34.6	34.6	34.6

Category:	Human Development
Sub-Category:	Health and Sanitation

INDICATORS: SANITATION AND DRINKING WATER

Access to sanitation facilities and to potable water are key, final components of Health and Sanitation. Our indicators measure sanitation and drinking water coverage using estimates from the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation, *Progress on Drinking Water and Sanitation: Special Focus on Sanitation* (2008).¹ (As of July 2009, these are the most recent cross-national data available.)

Sanitation and access to drinking water remain enormous challenges for Africa. The WHO and UNICEF's 2008 assessment of drinking water and sanitation in Africa finds, based on data from the Joint Monitoring Programme (JMP), that Africa is not on track to meet sanitation and drinking water targets in the Millennium Development Goals.² Only six African countries are on track to meet the sanitation target and only twenty-six to meet the water target. In the 2007 and 2008 Ibrahim Indexes of African Governance, we included only information on access to drinking water. We have added an indicator on sanitation for the 2009 Index given the findings of the JMP and comments from our readers.

Across African countries, the latest estimates (for 2006) suggest that more than 60 percent of the population lack access to improved sanitation facilities and more than 30 percent are without an adequate water source. In rural areas, coverage is estimated to be even worse.

Although the Index of African Governance cannot consider all indicators here, a more disaggregated view of sanitation and water coverage would be useful for those doing further work in this area. At the very least, rural and urban coverage should be considered. The data provided by the JMP offer a useful starting point.

National Data

JMP's estimates are useful in that they are computed to be comparable across countries and over time. This means that, as several sources have noted to us, there can be discrepancies between the JMP estimates and national data on water coverage and sanitation, which may be estimated using different methods.

While the Index team lacks the resources to duplicate the JMP's work in assessing sanitation and water coverage—much less the work of national statistical agencies—we continue to investigate the best data sources for this indicator, and invite feedback from national and other sources. For instance, during an Index presentation in Malawi in January 2009, members of the Women's Caucus of the Malawi Parliament argued that the water coverage estimates used in the Index for Malawi were far too high. (They were estimated at over 70 percent.) In response to these concerns, we reviewed the results of several national surveys in Malawi, including the 2002 Core Welfare Indicator Questionnaire (CWIQ), 2002 WHO *World Health Survey*, 2004 Demographic and Health Survey (DHS), and 2006 Multiple Indicator Cluster Survey (MICS). These survey results appear to be consistent with the figures as reported.³ We thus continue to use these estimates in the 2009 Index of African Governance. (However, as underscored by the comments of the parliamentarians, we also note major differences between urban and rural water coverage. The parliamentarians also

¹ As reported in the World Bank's World Development Indicators (WDI) 2009 (last accessed 22 July 2009).

² WHO and UNICEF, "A Snapshot of Drinking Water and Sanitation in Africa: A Regional Perspective Based on New Data from the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation," prepared for the African Ministers' Council on Water (AMCOW) as a contribution to the African Union Summit on Water Supply and Sanitation, 30 June-1 July 2008, available at www.wssinfo.org/pdf/africa_snapshot.pdf (last accessed 16 September 2009).

³ Figures are given in the WHO/UNICEF Joint Monitoring Programme for Water Supply, "Coverage Estimates: Improved Drinking Water–Malawi" (updated July 2008), available at wssinfo.org (last accessed 2 June 2009).

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highlighted particular challenges of water coverage in peri-urban communities, another point that a Malawi-focused study would usefully address.)

Technical Notes

The JMP treats the following as "improved" sanitation facilities: flush or pour-flush piped sewer system, septic tank, or pit latrine; ventilated improved pit latrine; pit latrine with slab; and composting toilet. It treats the following as "improved" drinking water sources: piped water into dwelling, plot, or yard; public tap; tubewell or borehole; protected dug well; protected spring; and rainwater. The following are "unimproved" drinking water sources: unprotected dug well or spring; small cart with tank or drum; tanker truck; and surface water from a river, dam, lake, pond, irrigation channel, or stream.⁴

Annual estimates are unavailable for these indicators of drinking water and sanitation coverage. Figures for 2000 are used as rough estimates for 2002, while figures for 2006 are used as rough estimates for 2005 and 2007. It should be noted that estimates for access to an improved water source have changed since the 2008 Ibrahim Index and earlier years' data (as reported in the 2008 Ibrahim Index and in other reports) are not comparable and are thus not reported here.

For water, the WDI 2009 does not include estimates for Cape Verde, Libya, and the Seychelles in 2006. Figures for 2000 are given as estimates. For sanitation, the WDI 2009 does not include estimates for the Seychelles or estimates for Cape Verde in 2006. For Cape Verde, figures for 2000 are given as estimates.

⁴ WHO and UNICEF, "A Snapshot," 1-2. In assessing access to potable water, use of bottled water is considered on a case-by-case basis.

ACCESS TO IMPROVED SANITATION FACILITIES

(% OF OVERALL POPULATION)

WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation, as Reported in WDI 2009

					SCAL	ED D	ATA:									
	RAW	DATA	1:		Ranke	d			Scaled	Overal	10-100					
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007				
Angola	40	50	50	50	21	14	14	14	38.7	49.5	49.5	49.5				
Benin	24	30	30	30	36	34	34	34	21.5	28.0	28.0	28.0				
Botswana	45	47	47	47	15	16	16	16	44.1	46.2	46.2	46.2				
Burkina Faso	9	13	13	13	47	44	44	44	5.4	9.7	9.7	9.7				
Burundi	42	41	41	41	17	20	20	20	40.9	39.8	39.8	39.8				
Cameroon	47	51	51	51	14	12	12	12	46.2	50.5	50.5	50.5				
Cape Verde	41	41	41	41	19	20	20	20	39.8	39.8	39.8	39.8				
Central African Republic	22	31	31	31	37	31	31	31	19.4	29.0	29.0	29.0				
Chad	7	9	9	9	49	50	50	50	3.2	5.4	5.4	5.4				
Comoros	29	35	35	35	30	24	24	24	26.9	33.3	33.3	33.3				
Congo (Brazzaville)	20	20	20	20	42	42	42	42	17.2	17.2	17.2	17.2				
Congo, Democratic Rep.	25	31	31	31	34	31	31	31	22.6	29.0	29.0	29.0				
Cote d'Ivoire	22	24	24	24	37	37	37	37	19.4	21.5	21.5	21.5				
Diibouti	65	67	67	67	5	6	6	6	65.6	67.7	67.7	67.7				
Equatorial Guinea	51	51	51	51	10	12	12	12	50.5	50.5	50.5	50.5				
Fritrea	4	5	5	5	52	52	52	52	0.0	1.1	1.1	1.1				
Ethiopia	7	11	11	11	49	47	47	47	3.2	7.5	7.5	7.5				
Gabon	36	36	36	36	22	22	22	22	34.4	34.4	34.4	34.4				
Gambia	49	52	52	52	12	10	10	10	48.4	51.6	51.6	51.6				
Ghana	9	10	10	10	47	49	49	49	5.4	6.5	6.5	6.5				
Guinea	16	19	19	19	43	43	43	43	12.9	16.1	16.1	16.1				
Guinea-Bissau	30	.33	33	.33	29	27	27	27	28.0	31.2	31.2	31.2				
Kenva	41	12	42	12	10	10	10	10	30.8	40.9	40.9	40.9				
Lesotho	34	36	36	36	23	22	22	22	32.3	34.4	34.4	34.4				
Liberia	22	22	22	22	25	22	20	20	20.1	20.1	20.1	20.1				
Madagascar	11	12	12	12	46	45	45	45	7.5	8.6	8.6	8.6				
Malawi	55	60	60	60	40	45	45	45	F4.0	60.0	60.0	60.0				
Mali	40	45	45	45	17	10	10	19	40.0	00.2	00.2	00.2				
Iviali	42	45	45	45	17	10	10	10	40.9	44.1	44.1	44.1				
Mauritina	22	24	24	24	37	37	37	37	19.4	21.5	21.5	21.5				
Mauritius	94	94	94	94	2	2	2	2	96.8	96.8	96.8	96.8				
Mozambique	27	37	31	37	32	37	31	37	24.7	29.0	29.0	29.0				
Namibia	32	35	35	35	26	24	24	24	30.1	33.3	33.3	33.3				
Niger	5	/	/	/	51	51	51	51	1.1	3.2	3.2	3.2				
Nigeria Duranda	28	30	30	30	31	34	34	34	25.8	28.0	28.0	28.0				
Kwallua Sao Tomo and Drinaina	25	23	23	23	34	40	40	40	22.6	20.4	20.4	20.4				
Sao Tome and Emerge	22	24	24	24	37	37	37	37	19.4	21.5	21.5	21.5				
Senegai	27	28	28	28	32	36	36	36	24.7	25.8	25.8	25.8				
Seychelles												_				
Siella Leolie	12	11	11	11	44	47	47	47	8.6	7.5	7.5	7.5				
Somana	21	23	23	23	41	40	40	40	18.3	20.4	20.4	20.4				
South Africa	57	59	59	59	8	9	9	9	57.0	59.1	59.1	59.1				
Sudan	34	35	35	35	23	24	24	24	32.3	33.3	33.3	33.3				
Swaziland	50	50	50	50	11	14	14	14	49.5	49.5	49.5	49.5				
Tanzania	34	33	33	33	23	27	27	27	32.3	31.2	31.2	31.2				
Togo	12	12	12	12	44	45	45	45	8.6	8.6	8.6	8.6				
Uganda	32	33	33	33	26	27	27	27	30.1	31.2	31.2	31.2				
Zambia	49	52	52	52	12	10	10	10	48.4	51.6	51.6	51.6				
Zimbabwe	45	46	46	46	15	17	17	17	44.1	45.2	45.2	45.2				
Algeria	92	94	94	94	3	2	2	2	94.6	96.8	96.8	96.8				
Egypt	61	66	66	66	7	7	7	7	61.3	66.7	66.7	66.7				
Libya	97	97	97	97	1	1	1	1	100.0	100.0	100.0	100.0				
Morocco	65	72	72	72	5	5	5	5	65.6	73.1	73.1	73.1				
Tunisia	81	85	85	85	4	4	4	4	82.8	87.1	87.1	87.1				

ACCESS TO DRINKING WATER (% OF OVERALL POPULATION)

WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation, as Reported in WDI 2009

					SCAL	ED D	ATA:					
	RAW	DATA	:		Ranke	d			Scale	d Overa	11 0-100)
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007
Angola	44	51	51	51	47	44	44	44	27.3	36.4	36.4	36.4
Benin	64	65	65	65	26	30	30	30	53.2	54.5	54.5	54.5
Botswana	95	96	96	96	3	3	3	3	93.5	94.8	94.8	94.8
Burkina Faso	56	72	72	72	35	22	22	22	42.9	63.6	63.6	63.6
Burundi	71	71	71	71	21	23	23	23	62.3	62.3	62.3	62.3
Cameroon	63	70	70	70	27	26	26	26	51.9	61.0	61.0	61.0
Cape Verde	80	80	80	80	14	17	17	17	74.0	74.0	74.0	74.0
Central African Republic	63	66	66	66	27	29	29	29	51.9	55.8	55.8	55.8
Chad	34	48	48	48	51	45	45	45	14.3	32.5	32.5	32.5
Comoros	88	85	85	85	7	12	12	12	84.4	80.5	80.5	80.5
Congo (Brazzaville)	70	71	71	71	23	23	23	23	61.0	62.3	62.3	62.3
Congo, Democratic Rep.	45	46	46	46	45	48	48	48	28.6	29.9	29.9	29.9
Cote d'Ivoire	75	81	81	81	18	15	15	15	67.5	75.3	75.3	75.3
Diibouti	83	92	92	92	11	7	7	7	77.9	89.6	89.6	89.6
Equatorial Guinea	43	43	43	43	48	49	49	49	26.0	26.0	26.0	26.0
Eritrea	54	60	60	60	38	34	34	34	40.3	48.1	48.1	48.1
Ethiopia	29	42	42	42	52	50	50	50	7.8	24.7	24.7	24.7
Gabon	85	87	87	87	10	8	8	8	80.5	83.1	83.1	83.1
Gambia	86	86	86	86	9	10	10	10	81.8	81.8	81.8	81.8
Ghana	72	80	80	80	19	17	17	17	63.6	74.0	74.0	74.0
Guinea	61	70	70	70	31	26	26	26	49.4	61.0	61.0	61.0
Guinea-Bissau	58	57	57	57	33	40	40	40	45.5	44.2	44.2	44.2
Kenya	51	57	57	57	41	40	40	40	36.4	44.2	44.2	44.2
Lesotho	77	78	78	78	17	19	19	19	70.1	71.4	71.4	71.4
Liberia	63	64	64	64	27	.32	32	32	51.9	53.2	53.2	53.2
Madagascar	45	47	47	47	45	46	46	46	28.6	31.2	31.2	31.2
Malawi	63	76	76	76	27	21	21	21	51.9	68.8	68.8	68.8
Mali	51	60	60	60	41	34	34	34	36.4	48.1	48.1	48.1
Mauritania	50	60	60	60	43	.34	34	34	35.1	48.1	48.1	48.1
Mauritius	100	100	100	100	1	1	1	1	100.0	100.0	100.0	100.0
Mozambique	41	42	42	42	49	50	50	50	23.4	24.7	24.7	24.7
Nomibie	81	03	92	03	13	5	5	5	75.3	00.0	24.7 00.0	00.0
Niger	41	12	42	12	10	50	50	50	23.4	24.7	24.7	24.7
Nigeria	40	47	47	47	40	16	46	46	23.4	24.7	24.7	24.7
Rwanda	49	47 65	47	47 65	25	40	40	40	53.6	51.2	51.2	51.2
Sao Tome and Principe	00	00	00	00	20	30	10	10	76.6	04.0	04.0	04.0
Suo Tonie una Etinope Senegal	72	77	77	77	12	20	20	20	62.6	70.1	70.1	70.1
Sevehelles	87	87	87	87	8	20	20	20	83.1	83.1	83.1	83.1
Sierra Leone	57	52	52	52	24	12	42	42	44.2	20.0	20.0	20.0
Somalia	22	20	20	20	52	43	43	4J 52	44.2	7.0	7.0	7.0
South A frica	23	29	29	29	55	55	55	55	0.0	7.0	00.0	7.0
Sudan	60	93	93	93	5	5	5	5	60.7	90.9	90.9	90.9
Suuai	69	70	70	70	24	20	20	20	59.7	61.0	01.0	67.0
Swaziialiu	59	60	60	60	32	34	34	34	46.8	48.1	48.1	48.1
Tanzania	53	55	55	55	40	42	42	42	39.0	41.6	41.6	41.6
logo	55	59	59	59	37	38	38	38	41.6	46.8	46.8	46.8
\cup ganda	56	64	64	64	35	32	32	32	42.9	53.2	53.2	53.2
Zambia	54	58	58	58	38	39	39	39	40.3	45.5	45.5	45.5
Zimbabwe	80	81	81	81	14	15	15	15	74.0	75.3	75.3	75.3
Algeria	89	85	85	85	5	12	12	12	85.7	80.5	80.5	80.5
Egypt	97	98	98	98	2	2	2	2	96.1	97.4	97.4	97.4
Libya	71	71	71	71	21	23	23	23	62.3	62.3	62.3	62.3
Morocco	80	83	83	83	14	14	14	14	74.0	77.9	77.9	77.9
Tunisia	90	94	94	94	4	4	4	4	87.0	92.2	92.2	92.2

Category:Human DevelopmentSub-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+)," May 2009 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, literacy rates are also correlated with income levels.

The Index's estimates for adult literacy suggest some of the difficulties in interpretation posed by these lagged effects. Our 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 2007 of 63.5 percent.

Given its recent instability, it is notable that Zimbabwe follows the Seychelles in terms of adult literacy (an estimated 91.2 percent in 2007 according to the UIS, an increase over its 2004 UIS estimate of 89.5 percent). Such high rates are broadly consistent with other sources, and are thus employed in the 2009 Index. Nevertheless, further research into Zimbabwe's estimates would be useful, and they should be used with caution. As previously noted, UNESCO's literacy rates rely on national reporting of literacy rates, and national authorities may define literacy in varying ways. Research into Zimbabwe's literary rates suggests that they have been based on a highly minimal definition of literacy: according to the Zimbabwe country report prepared by the Zimbabwe Ministry of Education, Sport, and Culture for the 2000 UNESCO "Education for All" campaign:

Literacy rate is defined as the proportion of people who have completed grade 3 for a particular population age group. So in this report the population aged 15 years and above who have completed at least grade three is classified as literate.³

¹ UNESCO, Literacy, A UNESCO Perspective (New York, 2003), 10.

² http://stats.uis.unesco.org (last accessed 3 June 2009).

³ UNESCO, "The EFA 2000 Assessment: Country Reports," in *Education for All the 2000 Assessment: Republic of Zimbabwe* (New York, 2000). Quote is available at www.unesco.org/education/wef/countryreports/zimbabwe/rapport_2_1.html, section 6.3.2 (last accessed 3 June 2009).

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According to this report, 85.97 percent of the population was literate in 1997. This figure is not reported in the latest UNESCO statistics on literacy, but it appears to be broadly consistent with the reported 2004 UNESCO figure of 89.52 percent.

Other countries with high literacy rates include Namibia, South Africa, São Tomé and Príncipe, Mauritius, and Equatorial Guinea. All have reported adult literacy rates of at least 87 percent. In addition to Somalia, the reported lowest literacy rates are in Mali (26.2 percent), Niger (28.7), and Burkina Faso (28.7).

Adult literacy rates among women are even lower—the latest estimates average about 58 percent across countries, ranging from a low of 15.1 percent in Niger to a high of 92.3 percent in the Seychelles. In addition to Niger, countries with the lowest female literacy rates include Guinea (18.1 percent), Mali (18.2), Burkina Faso (21.6), and Chad (20.8).

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. UNESCO's Literacy Assessment and Monitoring Programme (LAMP) continues to work toward improved measurements.⁴

Although UNESCO data are used in the 2009 Index as the authoritative source, estimates were also obtained from and compared against several other sources, including the U.S. Central Intelligence Agency (CIA)'s *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).

Technical Notes

Annual estimates are unavailable. The first table below summarizes all figures on overall literacy rates available for 1996 to 2007 from the UIS, "National Literacy Rates for Youths (15–24) and Adults (15+)," May 2009 release.⁵ Figures based on UIS estimations are noted. If figures are unavailable from this source, UIS estimates are taken from the latest *Human Development Report*, 2007/2008 edition (abbreviated in the table as "UIS est. from HDR").⁶

The Index of African Governance uses the closest available year's figure or estimate for each Index year 2000, 2002, 2005, 2006, and 2007.⁷ Figures shown in italics in the data tables 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, the Gambia, Guinea-Bissau, and Somalia.⁸

⁴ César Guadalupe, Brenda Tay-Lim, Manuel Cardoso, and Lucia Girardi, The Next Generation of Literacy Statistics: Implementing the Literacy Assessment and Monitoring Programme (LAMP), Technical Paper 1 (Montreal, 2009). See also UNESCO, International Literacy Statistics: A Review of Concepts, Methodology, and Current Data (Montreal, 2008).

⁵ http://stats.uis.unesco.org (last accessed 3 June 2009).

⁶ The 2009 Human Development Report will be launched in October 2009. The 2007/2008 Human Development Report (HDR 2007/2008) data on literacy are taken from http://hdrstats.undp.org/en/indicators/3.html (last accessed 3 June 2009).

⁷ If there is more than one estimate that fits this description, we use the earlier estimate.

The HDR 2007/2008 provides estimates based on UIS sources for Djibouti (79.9) 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" and "should be interpreted with caution." 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.

Adult Literacy Rates, Overall

Country	Reported Literacy Rates and Estimates, 1996–2007
Algeria	69.9 (2002), 75.4 (2007, UIS est.)
Angola	67.4 (2001)
Benin	34.7 (2002), 40.5 (2007, UIS est.)
Botswana	81.2 (2003), 82.9 (2007, UIS est.)
Burkina Faso	12.8 (1996), 21.8 (2003), 23.6 (2005), 28.7 (2007, UIS est.)
Burundi	59.3 (2000)
Cameroon	67.9 (2001)
Cape Verde	78.0 (2004, UIS est.), 83.8 (2007, UIS est.)
Central African Republic	48.6 (2000)
Chad	25.7 (2000), 28.4 (2004), 31.8 (2007, UIS est.)
Comoros	72.4 (2004, UIS est.), 75.1 (2007, UIS est.)
Congo (Brazzaville)	84.7 (UIS est. from HDR) ⁹
Congo, DR	67.2 (2001)
Côte d'Ivoire	48.7 (2000)
Djibouti	70.3 (UIS est. from HDR) ¹⁰
Egypt	55.6 (1996), 71.4 (2005), 66.4 (2006)
Equatorial Guinea	87.0 (2000)
Eritrea	52.5 (2002), 64.2 (2007, UIS est.)
Ethiopia	35.9 (2004), 35.9 (2007, UIS est.)
Gabon	77.4 (2004, UIS est.), 86.2 (2007, UIS est.)
Gambia	42.5 (UIS est. from HDR) ¹¹
Ghana	57.9 (2000), 65.0 (2007, UIS est.)
Guinea	29.5 (2003)
Guinea-Bissau	44.8 (UIS est. from HDR) ¹²
Kenya	73.6 (2000)
Lesotho	82.2 (2001)
Liberia	52.0 (2004, UIS est.), 55.5 (2007, UIS est.)
Libya	85.0 (2004, UIS est.), 86.8 (2007, UIS est.)
Madagascar	70.7 (2000)
Malawi	64.1 (1998), 71.8 (2007, UIS est.)
Mali	19.0 (1998), 24 (2003), 26.2 (2006, UIS est.)
Mauritania	51.2 (2000), 55.8 (2007, UIS est.)
Mauritius	84.3 (2000), 87.4 (2007, UIS est.)
Morocco	52.3 (2004), 55.6 (2007, UIS est.)
Mozambique	38.7 (1997), 44.4 (2007, UIS est.)
Namibia	85.0 (2001), 88.0 (2007, UIS est.)
Niger	28.7 (2005) ¹³
Nigeria	69.0 (2004, UIS est.), 72.0 (2007, UIS est.)
Rwanda	64.9 (2000)

São Tomé and Príncipe	84.9 (2001), 87.9 (2007, UIS est.)
Senegal	39.3 (2002), 41.9 (2006)
Seychelles	91.8 (2002)
Sierra Leone	34.8 (2004), 38.1 (2007, UIS est.)
Somalia	17.1 (UNDP Somalia 2001)
South Africa	82.4 (1996), 88.0 (2007, UIS est.)
Sudan	60.9 (2000)
Swaziland	79.6 (2000), 83.8 (2007, UIS est.)
Tanzania	69.4 (2002), 72.3 (2007, UIS est.)
Togo	53.2 (2000)
Tunisia	74.3 (2004), 77.7 (2007, UIS est.)
Uganda	68.1 (2002), 73.6 (2007, UIS est.)
Zambia	68.0 (1999), 69.1 (2002), 70.6 (2007, UIS est.)
Zimbabwe	89.5 (2004, UIS est.), 91.2 (2007, UIS est.)

Adult Literacy Rates, Female

Country	Reported Literacy Rates and Estimates, 1996–2007
Algeria	60.1 (2002), 66.4 (2007, UIS est.)
Angola	54.2 (2001)
Benin	23.3 (2002), 27.9 (2007, UIS est.)
Botswana	81.8 (2003), 82.9 (2007, UIS est.)
Burkina Faso	8.1 (1996), 15.2 (2003), 16.6 (2005), 21.6 (2007)
Burundi	52.2 (2000)
Cameroon	59.8 (2001)
Cape Verde	70.8 (2004, UIS est.), 78.8 (2007, UIS est.)
Central African Republic	33.5 (2000)
Chad	12.8 (2000), 18.0 (2004), 20.8 (2007, UIS est.)
Comoros	66.8 (2004, UIS est.), 69.8 (2007, UIS est.)
Congo (Brazzaville)	79.0 (UIS est. from HDR)
Congo, DR	54.1 (2001)
Côte d'Ivoire	38.6 (2000)
Djibouti	Unavailable ¹⁴
Egypt	43.6 (1996), 59.4 (2005), 57.8 (2006)
Equatorial Guinea	80.5 (2000)
Eritrea	40.2 (2002), 53.0 (2007, UIS est.)
Ethiopia	22.8 (2004), 22.8 (2007, UIS est.)
Gabon	70.4 (2004, UIS est.), 82.2 (2007, UIS est.)
Gambia	Unavailable
Ghana	49.8 (2000), 58.3 (2007, UIS est.)
Guinea	18.1 (2003)

Guinea-Bissau	Unavailable
Kenya	70.2 (2000)
Lesotho	90.3 (2001)
Liberia	45.7 (2004, UIS est.), 50.9 (2007, UIS est.)
Libya	75.9 (2004, UIS est.), 78.4 (2007, UIS est.)
Madagascar	65.3 (2000)
Malawi	54.0 (1998), 64.6 (2007, UIS est.)
Mali	11.9 (1998), 15.9 (2003), 18.2 (2006)
Mauritania	43.4 (2000), 48.3 (2007, UIS est.)
Mauritius	80.5 (2000), 84.7 (2007, UIS est.)
Morocco	39.6 (2004), 43.2 (2007, UIS est.)
Mozambique	25.0 (1997), 33.0 (2007, UIS est.)
Namibia	83.5 (2001), 87.4 (2007, UIS est.)
Niger	9.4 (2001), 15.1 (2005)
Nigeria	60.0 (2004, UIS est.), 64.1 (2007, UIS est.)
Rwanda	59.8 (2000)
São Tomé and Príncipe	77.9 (2001), 82.7 (2007, UIS est.)
Senegal	29.2 (2002), 33.0 (2006, UIS est.)
Seychelles	92.3 (2002)
Sierra Leone	24.2 (2004), 26.8 (2007, UIS est.)
Somalia	Unavailable
South Africa	80.9 (1996), 87.2 (2007, UIS est.)
Sudan	51.8 (2000)
Swaziland	78.3 (2000), 83.7 (2007, UIS est.)
Tanzania	62.2 (2002), 65.9 (2007, UIS est.)
Togo	38.5 (2000)
Tunisia	65.3 (2004), 69.0 (2007, UIS est.)
Uganda	58.9 (2002), 65.5 (2007, UIS est.)
Zambia	59.8 (1999), 61.8 (2002), 60.7 (2007, UIS est.)
Zimbabwe	86.2 (2004, UIS est.), 88.3 (2007, UIS est.)

^{9 &}quot;UNESCO Institute for Statistics estimates based on its Global Age-specific Literacy Projections model, April 2007."

¹⁰ 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, [and] w[as] used and should be interpreted with caution." See http://hdrstats.undp.org/indicators/3.html (last accessed 3 June 2009).

¹¹ See note for Djibouti. The CIA World Factbook 2007 estimate is 40.1 (2003).

¹² 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, [and] w[as] used and should be interpreted with caution." See http://hdrstats.undp.org/indicators/3.html (last accessed 3 June 2009).

¹³ 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.

¹⁴ Rough estimates are given by HDR 2007/08 at http://hdrstats.undp.org/en/indicators/272.html (last accessed 22 August 2009) for Djibouti (79.9), the Gambia (49.9), and Guinea-Bissau (60.0). It is noted that "In the absence of recent data, estimates from UNESCO (United Nations Educational, Scientific and Cultural Organization) Institute for Statistics. 2003. Correspondence on adult and youth literacy rates. March. Montreal, based on outdated census or survey information were used, and should be interpreted with caution." These figures are used to calculate the Gender-related Development Index. These figures are not used in our Index because they appear to be inconsistent with other available data: 1) they are significantly higher than figures given in the same source for the literacy rate overall and 2) they are exactly the same as figures given in the same source for the literacy rate among males (also used to calculate the Gender-related Development Index).
ADULT LITERACY RATE

UNESCO Institute of Statistics

					SCAL	ED D	ATA:						
	RAW	DATA	۸:		Ranke	d			Scaled Overall 0-100				
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007	
Angola	67.4	67.4	67.4	67.4	26	28	27	27	67.3	67.3	67.3	67.3	
Benin	34.7	40.5	40.5	40.5	47	45	45	45	23.6	31.3	31.3	31.3	
Botswana	81.2	81.2	82.9	82.9	11	12	13	13	85.8	85.8	88.1	88.1	
Burkina Faso	21.8	23.6	23.6	28.7	51	52	52	50	6.3	8.7	8.7	15.5	
Burundi	59.3	59.3	59.3	59.3	31	34	34	34	56.5	56.5	56.5	56.5	
Cameroon	67.9	67.9	67.9	67.9	25	27	26	26	68.0	68.0	68.0	68.0	
Cape Verde	78.0	78.0	83.8	83.8	13	13	11	11	81.5	81.5	89.3	89.3	
Central African Republic	48.6	48.6	48.6	48.6	40	40	40	40	42.2	42.2	42.2	42.2	
Chad	25.7	28.4	31.8	31.8	50	50	48	48	11.5	15.1	19.7	19.7	
Comoros	72.4	72.4	75.1	75.1	17	19	17	17	74.0	74.0	77.6	77.6	
Congo (Brazzaville)	84.7	84.7	84.7	84.7	7	9	10	10	90.5	90.5	90.5	90.5	
Congo, Democratic Rep.	67.2	67.2	67.2	67.2	27	29	28	28	67.1	67.1	67.1	67.1	
Cote d'Ivoire	48.7	48.7	48.7	48.7	39	39	39	39	42.3	42.3	42.3	42.3	
Djibouti	70.3	70.3	70.3	70.3	19	25	25	25	71.2	71.2	71.2	71.2	
Equatorial Guinea	87.0	87.0	87.0	87.0	3	7	7	7	93.6	93.6	93.6	93.6	
Eritrea	52.5	64.2	64.2	64.2	35	32	32	32	47.4	63.1	63.1	63.1	
Ethiopia	35.9	35.9	35.9	35.9	45	46	47	47	25.2	25.2	25.2	25.2	
Gabon	77.4	77.4	86.2	86.2	14	14	9	9	80.7	80.7	92.5	92.5	
Gambia	42.5	42.5	42.5	42.5	42	43	43	43	34.0	34.0	34.0	34.0	
Ghana	57.9	65.0	65.0	65.0	32	30	30	30	54.6	64.1	64.1	64.1	
Guinea	29.5	29.5	29.5	29.5	48	48	49	49	16.6	16.6	16.6	16.6	
Guinea-Bissau	44.8	44.8	44.8	44.8	41	41	41	41	37.1	37.1	37.1	37.1	
Kenya	73.6	73.6	73.6	73.6	16	17	18	18	75.6	75.6	75.6	75.6	
Lesotho	82.2	82.2	82.2	82.2	10	11	14	14	87.1	87.1	87.1	87.1	
Liberia	52.0	52.0	55.5	55.5	37	38	37	37	46.7	46.7	51.4	51.4	
Madagascar	70.7	70.7	70.7	70.7	18	23	23	23	71.8	71.8	71.8	71.8	
Malawi	64.1	71.8	71.8	71.8	29	21	22	22	62.9	73.2	73.2	73.2	
Mali	19.0	26.2	26.2	26.2	52	51	51	52	2.5	12.2	12.2	12.2	
Mauritania	51.2	55.8	55.8	55.8	38	35	35	35	45.6	51.8	51.8	51.8	
Mauritius	84.3	87.4	87.4	87.4	8	6	6	6	90.0	94.1	94.1	94.1	
Mozambique	38.7	44.4	44.4	44.4	44	42	42	42	28.9	36.5	36.5	36.5	
Namibia	85.0	88.0	88.0	88.0	4	3	3	3	90.9	94.9	94.9	94.9	
Niger	28.7	28.7	28.7	28.7	49	49	50	50	15.5	15.5	15.5	15.5	
Nigeria	69.0	69.0	72.0	72.0	22	26	21	21	69.5	69.5	73.5	73.5	
Rwanda	64.9	64.9	64.9	64.9	28	31	31	31	64.0	64.0	64.0	64.0	
Sao Tome and Principe	84.9	87.9	87.9	87.9	6	5	5	5	90.8	94.8	94.8	94.8	
Senegal	39.3	41.9	41.9	41.9	43	44	44	44	29.7	33.2	33.2	33.2	
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	38.1	38.1	46	47	46	46	23.7	23.7	28.1	28.1	
Somalia	17.1	17.1	17.1	17.1	53	53	53	53	0.0	0.0	0.0	0.0	
South Africa	82.4	88.0	88.0	88.0	9	3	3	3	87.4	94.9	94.9	94.9	
Sudan	60.9	60.9	60.9	60.9	30	33	33	33	58.6	58.6	58.6	58.6	
Swaziland	79.6	83.8	83.8	83.8	12	10	11	11	83.7	89.3	89.3	89.3	
Tanzania	69.4	72.3	72.3	72.3	21	20	20	20	70.0	73.9	73.9	73.9	
Togo	53.2	53.2	53.2	53.2	34	36	38	38	48.3	48.3	48.3	48.3	
Uganda	68.1	73.6	73.6	73.6	23	17	18	18	68.3	75.6	75.6	75.6	
Zambia	68.0	70.6	70.6	70.6	24	24	24	24	68.1	71.6	71.6	71.6	
Zimbabwe	89.5	89.5	91.2	91.2	2	2	2	2	96.9	96.9	99.2	99.2	
Algeria	69.9	75.4	75.4	75.4	20	15	16	16	70.7	78.0	78.0	78.0	
Egypt	55.6	71.4	66.4	66.4	33	22	29	29	51.5	72.7	66.0	66.0	
Libya	85.0	85.0	86.8	86.8	4	8	8	8	90.9	90.9	93.3	93.3	
Morocco	52.3	52.3	55.6	55.6	36	37	36	36	47.1	47.1	51.5	51.5	
Tunisia	74.3	74.3	77.7	77.7	15	16	15	15	76.6	76.6	81.1	81.1	

ADULT LITERACY RATE, FEMALE

UNESCO Institute of Statistics

					SCAL	ED D	ATA:							
	RAW	DATA	:		Ranke	d			Scaled Overall 0-100					
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007		
Angola	54.2	54.2	54.2	54.2	26	29	29	29	54.0	54.0	54.0	54.0		
Benin	23.3	27.9	27.9	27.9	43	42	42	42	16.8	22.3	22.3	22.3		
Botswana	81.8	81.8	82.9	82.9	5	9	8	8	87.3	87.3	88.7	88.7		
Burkina Faso	15.2	16.6	16.6	21.6	46	48	48	45	7.0	8.7	8.7	14.7		
Burundi	52.2	52.2	52.2	52.2	29	32	32	32	51.6	51.6	51.6	51.6		
Cameroon	59.8	59.8	59.8	59.8	22	25	25	25	60.8	60.8	60.8	60.8		
Cape Verde	70.8	70.8	78.8	78.8	13	13	13	13	74.1	74.1	83.7	83.7		
Central African Republic	33.5	33.5	33.5	33.5	39	39	39	39	29.1	29.1	29.1	29.1		
Chad	12.8	18.0	20.8	20.8	47	47	45	46	4.1	10.4	13.8	13.8		
Comoros	66.8	66.8	69.8	69.8	16	16	16	16	69.2	69.2	72.9	72.9		
Congo (Brazzaville)	79.0	79.0	79.0	79.0	9	11	12	12	84.0	84.0	84.0	84.0		
Congo, Democratic Rep.	54.1	54.1	54.1	54.1	27	30	30	30	53.9	53.9	53.9	53.9		
Cote d'Ivoire	38.6	38.6	38.6	38.6	37	37	37	37	35.2	35.2	35.2	35.2		
Djibouti														
Equatorial Guinea	80.5	80.5	80.5	80.5	7	10	11	11	85.8	85.8	85.8	85.8		
Eritrea	40.2	53.0	53.0	53.0	35	31	31	31	37.2	52.6	52.6	52.6		
Ethiopia	22.8	22.8	22.8	22.8	44	44	44	44	16.2	16.2	16.2	16.2		
Gabon	70.4	70.4	82.2	82.2	14	14	10	10	73.6	73.6	87.8	87.8		
Gambia														
Ghana	49.8	58.3	58.3	58.3	31	28	27	27	48.7	59.0	59.0	59.0		
Guinea	18.1	18.1	18.1	18.1	45	46	47	48	10.5	10.5	10.5	10.5		
Guinea-Bissau														
Kenya	70.2	70.2	70.2	70.2	15	15	15	15	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	50.9	50.9	32	35	34	34	43.8	43.8	50.1	50.1		
Madagascar	65.3	65.3	65.3	65.3	17	20	21	21	67.4	67.4	67.4	67.4		
Malawi	54.0	64.6	64.6	64.6	28	22	22	22	53.8	66.6	66.6	66.6		
Mali	11.9	18.2	18.2	18.2	48	45	46	47	3.0	10.6	10.6	10.6		
Mauritania	43.4	48.3	48.3	48.3	34	34	35	35	41.0	46.9	46.9	46.9		
Mauritius	80.5	84.7	84.7	84.7	7	6	6	6	85.8	90.8	90.8	90.8		
Mozambique	25.0	33.0	33.0	33.0	41	40	40	40	18.8	28.5	28.5	28.5		
Namibia	83.5	87.4	87.4	87.4	4	3	4	4	89.4	94.1	94.1	94.1		
Niger	9.4	15.1	15.1	15.1	49	49	49	49	0.0	6.9	6.9	6.9		
Nigeria	60.0	60.0	64.1	64.1	21	24	23	23	61.0	61.0	66.0	66.0		
Rwanda	59.8	59.8	59.8	59.8	22	25	25	25	60.8	60.8	60.8	60.8		
Sao Tome and Principe	77.9	82.7	82.7	82.7	11	8	9	9	82.6	88.4	88.4	88.4		
Senegal	29.2	33.0	33.0	33.0	40	40	40	40	23.9	28.5	28.5	28.5		
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	26.8	26.8	42	43	43	43	17.9	17.9	21.0	21.0		
Somalia														
South Africa	80.9	87.2	87.2	87.2	6	4	5	5	86.2	93.8	93.8	93.8		
Sudan	51.8	51.8	51.8	51.8	30	33	33	33	51.1	51.1	51.1	51.1		
Swaziland	78.3	83.7	83.7	83.7	10	7	7	7	83.1	89.6	89.6	89.6		
Tanzania	62.2	65.9	65.9	65.9	19	18	19	19	63.7	68.2	68.2	68.2		
Togo	38.5	38.5	38.5	38.5	38	38	38	38	35.1	35.1	35.1	35.1		
Uganda	58.9	65.5	65.5	65.5	25	19	20	20	59.7	67.7	67.7	67.7		
Zambia	59.8	60.7	60.7	60.7	22	23	24	24	60.8	61.9	61.9	61.9		
Zimbabwe	86.2	86.2	88.3	88.3	3	5	3	3	92.6	92.6	95.2	95.2		
Algeria	60.1	66.4	66.4	66.4	20	17	18	18	61.2	68.8	68.8	68.8		
Egvnt	43.6	59.4	57.8	57.8	33	27	28	28	41.3	60.3	58.4	58.4		
Libva	75.9	75.9	78.4	78.4	12	12	14	14	80.2	80.2	83.2	83.2		
Morocco	39.6	39.6	43.2	43.2	36	36	36	36	36.4	36.4	40.8	40.8		
Tunisia	65.3	65.3	69.0	69.0	17	20	17	17	67.4	67.4	71.9	71.9		

Category:Human DevelopmentSub-Category:Education

INDICATORS: PRIMARY EDUCATION COMPLETION

In a well-governed state, children will have access to basic education. At an absolute minimum, this education will include primary schooling for both boys and girls. In better governed states, it will also include high rates of secondary and tertiary education.

The Index of African Governance considers four indicators of access to education. The first two, discussed here, measure the primary school completion rate among all students and the rate among female students only. The third assesses progression from primary to secondary school, and the fourth looks at whether boys and girls are provided equal access to education. These four measures provide a minimal assessment of educational access across the continent and over time. The choice of indicators is limited, in part, by data availability. As the data on the next two indicators in this section suggest, missing data is a major problem among the more specific indicators—even more than for those indicators used here. Those interested in assessing educational access for selected countries, however, should also consider other measures, including enrollment rates at all levels and measures for tertiary education in particular.

Data for the primary school completion rates are from UNESCO as reported in the World Bank's World Development Indicators (WDI) 2009.¹ The measure is equal to the total number of students in the last year of primary school, minus the number who repeat that year, divided by the total number of children in the relevant age group.

In 2007, primary school completion rates ranged from an estimated low of 24.4 percent in the Central African Republic to highs of more than 100 percent in Tunisia and the Seychelles. Among girls, primary school completion rates ranged from an estimated low of 18.0 percent in the Central African Republic to highs of more than 100 percent in the Seychelles and Tunisia.²

Technical Notes

In the Index of African Governance, figures are adjusted before Index scores are calculated so that a 100 percent primary school completion rate is the best possible value. For any country with rates above 100 percent, we assign a value of 100 percent when calculating the Index.

Data are unavailable for Angola, Libya, and Somalia. Other estimates are for the given year or closest available (earlier if possible), as summarized below:

- Data for 2007 are unavailable for Benin, the Central African Republic, Djibouti, Lesotho, Mali, Senegal, and Tunisia, and figures for 2006 are used as estimates for each of these countries.
- Data after 2005 are unavailable for Botswana, Chad, the Comoros, Ghana, Kenya, South Africa, Swaziland, and Uganda, and figures for 2005 are used as estimates for 2006–2007.
- Data for 2006 are unavailable for Equatorial Guinea, the Seychelles, and the Sudan. Figures for 2005 are used as estimates.
- Data after 2004 are unavailable for Nigeria and Rwanda. Figures for 2004 are used as estimates for 2005–2007.
- Central African Republic: 2000 and 2002 give 2003 figure as estimate.
- The Comoros: 2000 gives 1999 figure as estimate.
- Congo (Brazzaville): 2000 gives 2001 figure as estimate.
- The Democratic Republic of the Congo: 2006 gives 2007 figure as estimate, 2005 gives 2003 figure, and 2000 gives 2002 figure as estimate.

¹ Last accessed 22 July 2009.

² Estimates for the Central African Republic and Tunisia are based on 2006 figures.

- Côte d'Ivoire: 2005 gives 2006 figure as estimate. 2002 gives 2001 figure as estimate.
- Djibouti: 2002 gives 2001 figure as estimate.
- Equatorial Guinea: 2000 gives 1999 figure as estimate.
- Gabon: 2005–2007 give 2003 figure as estimates. 2000 gives 2002 figure as estimate.
- The Gambia: 2000 and 2002 give 1999 figure as estimates. 2005 gives 2006 figure as estimate.
- Ghana: 2000 and 2002 give 1999 and 2001 figures as estimates, respectively.
- Guinea-Bissau: 2001 figure is given as an estimate for 2002 and for 2005–2007.
- Kenya: 2000 and 2002 gives 2004 figure as estimates.
- Liberia: Data are unavailable before 2006. No figure is given for 2007, and the 2008 figure is lower than the 2006 figure. Index research in Liberia suggests that the 2008 figure is more credible. The 2008 figure is thus used as an estimate for the years since the Ellen Johnson-Sirleaf administration took office (2006 on). Given the conflict in Liberia, we do not provide an estimate for earlier years.
- Mauritania: For primary school completion for girls only, 2000 gives 2001 figure as estimate.
- Nigeria: 2000 and 2002 give 2003 figure as estimates.
- São Tomé and Príncipe: 2000 gives 1999 figure as estimate.
- Sierra Leone: Data are unavailable before 2007. The 2007 figure is given as a rough estimate for 2005 and for 2006.
- Tanzania: 2000 gives 1999 figure as estimate.
- Uganda: 2000 gives 2001 figure as estimate.
- Zimbabwe: 2005–2007 give 2003 figure as estimates. 2000 gives 1999 figure as estimate.

PRIMARY EDUCATION COMPLETION RATE (% OF RELEVANT AGE GROUP)

UNESCO (as reported in WDI 2009)

					SCAL	ED D	ATA:							
	RAW DATA: 2000 2005 2006 2007 34.9 64.7 64.4 64.4 89.9 94.6 94.6 94.6 25.0 30.3 31.3 33.3 1 24.9 34.6 36.3 99.2 1 49.9 52.1 51.8 55.5 2 24.9 24.3 24.4 24.4 22.3 31.2 31.2 31.2 3 38.5 50.5 50.5 3 38.9 50.5 50.5 3 38.5 38.5 35.7 3 38.5 36.7 55.7 3 36.4 51.6 48.9 46.4 3 54.5 56.7 56.7 76.7 3 56.7 58.3 63.7 76.7 3 56.7 76.7 70.7 70.7 3 56.7 56.1 55.4 3 56.7 <td< td=""><td>Ranke</td><td>d</td><td></td><td colspan="5">Scaled Overall 0-100</td></td<>				Ranke	d		Scaled Overall 0-100						
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007		
Angola														
Benin	34.9	64.7	64.4	64.4	36	22	24	25	22.4	57.9	57.6	57.6		
Botswana	89.9	94.6	94.6	94.6	8	6	3	5	87.9	93.6	93.6	93.6		
Burkina Faso	25.0	30.3	31.3	33.3	41	46	47	47	10.6	16.9	18.1	20.5		
Burundi	24.9	34.6	36.3	39.2	42	43	43	44	10.5	22.1	24.0	27.6		
Cameroon	49.9	52.1	51.8	55.5	27	31	32	30	40.3	42.9	42.5	46.9		
Cape Verde	101.8	81.4	92.3	86.2	1	10	7	10	100.0	77.8	90.8	83.6		
Central African Republic	24.9	24.3	24.4	24.4	43	49	50	50	10.5	9.7	9.8	9.8		
Chad	22.3	31.2	31.2	31.2	44	45	48	48	7.4	18.0	18.0	18.0		
Comoros	38.9	50.5	50.5	50.5	30	34	34	35	27.2	41.0	41.0	41.0		
Congo (Brazzaville)	54.5	67.1	73.2	72.3	24	19	19	19	45.8	60.8	68.1	66.9		
Congo, Democratic Rep.	38.5	38.5	50.7	50.7	31	41	33	34	26.7	26.6	41.2	41.2		
Cote d'Ivoire	39.1	42.8	42.8	44.7	29	38	41	42	27.4	31.8	31.8	34.1		
Diibouti	28.0	31.2	35.5	35.5	39	44	45	46	14.2	18.0	23.1	23.1		
Equatorial Guinea	65.7	58.2	58.2	66.7	15	26	27	23	59.2	50.2	50.2	60.3		
Eritrea	36.4	51.6	48.9	46.4	34	32	36	39	24.2	42.3	39.1	36.1		
Ethiopia	21.6	41.3	45.4	46.3	45	40	40	41	6.5	30.1	34.9	36.0		
Gabon	76.0	74.7	74.7	74.7	12	15	16	17	71.3	69.8	69.8	69.8		
Gambia	52.9	63.0	63.0	71.6	25	23	26	21	43.9	55.9	55.9	66.1		
Ghana	62.8	70.7	70.7	70.7	17	18	21	22	55.6	65.0	65.0	65.0		
Guinea	32.8	58.3	63.7	64.2	37	25	25	26	19.9	50.3	56.8	57.3		
Guinea-Bissau	26.9	26.9	26.9	26.9	40	48	49	49	12.9	12.9	12.9	12.9		
Kenya	90.0	92.6	92.6	92.6	7	7	5	7	88.1	91.2	91.2	91.2		
Lesotho	60.1	62.3	78.3	78.3	19	24	14	15	52.4	55.1	74.1	74.1		
Liberia			54.7	54.7			30	32			46.0	46.0		
Madagascar	35.5	57.6	56.9	61.5	35	27	28	27	23.1	49.5	48.6	54.1		
Malawi	65.7	56.2	55.1	55.4	14	29	29	31	59.2	47.7	46.4	46.8		
Mali	32.8	44.1	49.4	49.4	38	37	35	37	19.9	33.4	39.7	39.7		
Mauritania	52.6	46.0	47.1	50 /	26	36	38	28	13.5	35.6	37.0	51.6		
Mauritius	104.6	97.2	92.3	03.5	1	4	6	6	100.0	96.7	00.8	02.3		
Mozambiquo	16.1	41.7	41.9	46.2	10	7	42	40	0.0	20.5	20.6	32.0		
Nomihia	94.0	70.0	76.0	40.3	40	14	42	40	0.0	74.7	72.4	72.7		
Namioia	40.4	20.6	20.7	20.6	47	47	10	10	02.0	14.1	10.9	28.0		
Nigeria	18.4	29.6	32.7	39.6	47	47	46	43	2.7	10.1	19.8	28.0		
Pwanda	71.9	72.4	72.4	72.4	13	17	20	18	00.5	07.1	07.1	07.1		
Sao Tome and Principe	20.7	35.5	35.5	30.0	40	42	44	45	5.4	23.1	23.1	23.1		
Senegal	40.4	74.2	73.9	/2.1	28	16	18	20	36.7	69.3	08.9	00.0		
Sevehallas	37.7	51.5	48.7	48.7	32	33	37	38	25.8	42.2	38.8	38.8		
Sierra Leone	112.9	114.9	114.9	113.9	1	1	1	1	100.0	100.0	100.0	100.0		
Sierra Leolie		80.8	80.8	80.8		12	13	14		77.1	77.1	77.1		
South A frice														
South Africa	90.1	92.2	92.2	92.2	6	8	8	8	88.2	90.6	90.6	90.6		
Sudan	37.5	46.9	46.9	50.0	33	35	39	36	25.5	36.7	36.7	40.4		
Swaziland	64.3	66.7	66.7	66.7	16	20	22	24	57.5	60.3	60.3	60.3		
Tanzania	56.8	56.5	74.3	85.4	22	28	17	11	48.4	48.1	69.4	82.6		
logo	61.0	65.0	64.5	57.4	18	21	23	29	53.5	58.3	57.6	49.2		
Uganda	57.2	54.4	54.4	54.4	21	30	31	33	49.0	45.7	45.7	45.7		
Zambia	60.1	82.7	84.0	88.1	20	9	10	9	52.4	79.4	81.0	85.8		
Zimbabwe	90.4	81.0	81.0	81.0	5	11	12	13	88.6	77.4	77.4	77.4		
Algeria	82.6	95.8	85.2	95.1	11	5	9	4	79.3	95.0	82.4	94.2		
Egypt	98.1	98.0	93.8	98.5	4	3	4	3	97.8	97.6	92.6	98.2		
Libya														
Morocco	56.7	80.3	84.0	83.4	23	13	11	12	48.4	76.5	81.0	80.2		
Tunisia	86.7	99.2	119.6	119.6	9	2	1	1	84.2	99.0	100.0	100.0		

PRIMARY EDUCATION COMPLETION RATE, FEMALE

(% OF RELEVANT AGE GROUP)

UNESCO (as reported in WDI 2009)

O (as reported in WDI 2009)						SCALED DATA:								
	RAW DATA:				Ranke	ed			Scaled Overall 0-100					
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007		
Angola														
Benin	24.2	51.3	52.5	52.5	37	29	29	29	13.4	44.3	45.7	45.7		
Botswana	92.3	98.5	98.5	98.5	5	3	3	3	91.2	98.3	98.3	98.3		
Burkina Faso	20.5	26.2	27.5	29.2	40	45	46	47	9.2	15.6	17.2	19.1		
Burundi	22.7	30.2	32.4	36.0	39	43	44	43	11.7	20.3	22.8	26.8		
Cameroon	46.5	47.9	47.6	50.3	25	31	33	31	38.8	40.4	40.1	43.2		
Cape verde	103.5	83.3	95.0	88.4	1	9	4	10	100.0	81.0	94.3	86.8		
Central Antean Republic	18.1	18.0	18.7	18.7	44	49	50	50	6.4	6.3	7.1	7.1		
Cinau	12.7	21.1	21.1	21.1	47	47	48	48	0.2	9.7	9.7	9.7		
Congo (Prozzavilla)	36.6	49.1	49.1	49.1	29	30	32	33	27.5	41.8	41.8	41.8		
Congo Democratic Ren	54.3	64.5	69.4	69.6	20	21	19	20	47.7	59.4	65.0	65.2		
Coto d'Ivoiro	30.8	30.8	40.8	40.8	34	42	38	38	20.9	20.9	32.3	32.3		
Cole d Ivolle	30.2	32.5	32.5	30.4	35	41	43	42	20.2	22.9	22.9	27.3		
Djibouti	22.0	20.9	51.0	31.0	30	44	45	40	11.7	10.4	21.0	21.0		
Equatorial Guinea	53.4	0.00	50.0	05.1	21	24	25	23	40.7	50.4	50.4	60.1		
Eritrea	32.6	44.3	41.6	40.6	32	35	37	39	23.0	36.4	33.3	32.1		
Ethiopia	15.2	34.2	40.2	41.3	45	40	39	37	3.1	24.7	31.6	32.8		
Gambia	11.5	70.2	70.2	70.2	12	14	15	10	74.3	72.8	72.8	72.8		
Ghana	40.0	03.0	67.0	67.9	27	22	23	10	52.6	50.4	50.4	62.2		
Guinea	58.5 20.5	67.8	52.4	07.8 FF 0	17	19	21	22	52.0	03.2	03.2	03.2		
Guinea-Bissau	20.5	47.1	10.2	10.2	41	33	20	20	9.2	39.0	40.0	40.0		
Kenva	19.5	01.6	19.3	01.6	42	40	49	49	7.0	7.0	7.0	7.0		
Lesotho	00.0	91.0	97.0	91.0	0	0	9	9	00.9	90.4	90.4	90.4		
Liberia	09.7	73.3	92.1	92.1	15	15	21	22	05.4	09.5	91.0	91.0		
Madagascar	25.7	67.6	49.0	49.0	20	22	24	25	26.5	51.5	42.0 50.5	42.0		
Malawi	62.0	57.5	55.1	55.0	16	25	24	23	20.5	40.1	49.7	40.6		
Mali	24.0	25.0	20.9	20.9	26	25	20	40	14.2	49.1	40.7	49.0		
Mauritania	24.9	45.8	47.0	60.1	26	34	40	40 26	38.4	38.1	39.5	54.4		
Mauritius	103.8	98.1	9/ 1	05.3	1	4	5	6	100.0	07.8	03.2	94.6		
Mozambique	12.5	34.3	34.6	39.4	48	30	42	41	0.0	24.9	25.2	30.8		
Nomibia	90.3	82.3	80.7	80.9	7	10	11	13	88.9	79.8	77.9	78.1		
Niger	14.8	23.5	26.1	31.8	46	46	47	45	2.6	12.5	15.6	22.0		
Nigeria	64 7	64 7	64.7	64.7	15	20	22	24	59.6	59.6	59.6	59.6		
Rwanda	19.0	34.9	34.9	34.9	43	38	41	44	7.4	25.6	25.6	25.6		
Sao Tome and Principe	49.6	76.3	75.9	73.7	24	13	16	17	42.3	72.9	72.5	70.0		
Senegal	31.8	47.6	46.6	46.6	33	32	35	35	22.0	40.1	38.9	38.9		
Sevchelles	111.9	117.5	117.5	117.6	1	1	1	1	100.0	100.0	100.0	100.0		
Sierra Leone		69.8	69.8	69.8		17	18	19		65.5	65.5	65.5		
Somalia														
South Africa	91.2	92.1	92.1	92.1	6	7	7	8	89.9	91.0	91.0	91.0		
Sudan	35.5	43.4	43.4	46.2	31	36	36	36	26.3	35.3	35.3	38.5		
Swaziland	65.9	69.1	69.1	69.1	14	18	20	21	61.1	64.7	64.7	64.7		
Tanzania	58.0	55.3	73.2	83.5	18	26	17	11	52.0	48.9	69.3	81.1		
Тодо	45.1	54.2	54.1	48.0	28	27	27	34	37.3	47.7	47.5	40.6		
Uganda	51.3	51.5	51.5	51.5	22	28	30	30	44.4	44.5	44.5	44.5		
Zambia	54.9	70.1	79.0	82.6	19	16	14	12	48.4	65.8	75.9	80.1		
Zimbabwe	87.9	79.5	79.5	79.5	9	11	13	14	86.2	76.5	76.5	76.5		
Algeria	82.4	95.6	84.3	96.1	11	5	10	4	79.9	95.0	82.1	95.5		
Egvpt	94.4	93.7	92.0	95.9	4	6	8	5	93.5	92.8	90.9	95.3		
Libva														
Morocco	50.1	76.7	80.0	79.2	23	12	12	15	43.0	73.4	77.1	76.3		
Tunisia	86.4	100.1	117.3	117.3	10	1	1	1	84.4	100.0	100.0	100.0		

Category: Human Development Sub-Category: Education

INDICATOR: PROGRESSION TO SECONDARY SCHOOL

The third indicator of educational access employed in the Index measures whether students continue on from primary to secondary school. Data are from UNESCO as reported in the World Bank's World Development Indicators (WDI) 2009.¹ The indicator expresses the number of new entrants to the first year of secondary school as a percentage of the number of students enrolled in the last year of primary school the year before.

Across African countries, about 67 percent of students progress from primary to secondary school. The most recent progression rates near 100 percent in Botswana (97.1 percent) and the Seychelles (94.9 percent). At the other end of the spectrum, only about one-third of students progress from primary to secondary school in Burundi (30.8 percent) and Cameroon (35.8 percent).

Technical Notes

Data are unavailable for Angola, the Democratic Republic of the Congo, Equatorial Guinea, Gabon, Kenya, Liberia, Libya, Nigeria, Rwanda, Sierra Leone, and Somalia. Other estimates are for the given year or closest available (earlier if possible), as summarized below:

- Data for 2007 are unavailable for Algeria, Burkina Faso, Burundi, Cameroon, Cape Verde, Côte d'Ivoire, Djibouti, Eritrea, Ethiopia, the Gambia, Guinea, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Niger, Togo, and Zambia. Figures for 2006 are used as estimates for each of these countries.
- Data after 2005 are unavailable for Benin, the Central African Republic, Lesotho, Senegal, Tunisia, and Uganda. Figures for 2005 are used as estimates for 2006–2007.
- Data for 2006 are unavailable for Tanzania, and the 2005 figure is used as an estimate.
- Data after 2004 are unavailable for Botswana, Chad, the Comoros, Congo (Brazzaville), South Africa, and Swaziland. Figures for 2004 are used as estimates for 2005–2007.
- Data after 2003 are unavailable for Egypt and the Seychelles. Figures for 2003 are used as estimates for 2005–2007.
- Burundi: 2000 gives 2001 figure as estimate.
- Cameroon: 2002 gives 2000 figure as estimate.
- Cape Verde: 2000 gives 2001 figure as estimate.
- The Central African Republic: 2000 and 2002 give 2004 figure as estimates.
- The Comoros: 2000 gives 2002 figure as estimate.
- Congo (Brazzaville): 2000 gives 2001 figure as estimate.
- Côte d'Ivoire: 2002 gives 2001 figure as estimate and 2005 gives 2006 figure as estimate.
- Djibouti: 2002 gives 2001 figure as estimate.
- Ethiopia: 2005 gives 2004 figure as estimate.
- The Gambia: 2000 and 2002 give 1999 figure as estimates, and 2005 gives 2006 figure as estimate.
- Ghana: 2005–2007 give 2002 figure as estimates.
- Guinea-Bissau: 2002 and 2005–2007 give 2000 figure as estimates.
- Malawi: 2002 gives 2001 figure as estimate.
- Mozambique: 2002 gives 2001 figure as estimate.
- São Tomé and Príncipe: 2005 gives 2004 figure as estimate and 2000 gives 2001 figure as estimate.
- South Africa: 2000 gives 1999 figure as estimate.

¹ Last accessed 22 July 2009.

- Zambia: 2002 gives 2001 figure as estimate.
- Zimbabwe: 2005–2007 give 2002 figure as estimates and 2000 gives 1999 figure as estimate.

PROGRESSION TO SECONDARY SCHOOL (%)

UNESCO (as reported in WDI 2008)

					SCAL	ED D	ATA:							
	RAW	DATA	۸:		Ranke	d			Scale	d Overa	ll 0-100)		
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007		
Angola														
Benin	73.5	71.3	71.3	71.3	17	18	18	18	67.6	64.8	64.8	64.8		
Botswana	95.8	97.1	97.1	97.1	2	1	1	1	95.1	96.8	96.8	96.8		
Burkina Faso	36.2	44.4	45.5	45.5	38	39	38	38	21.4	31.7	32.9	32.9		
Burundi	21.3	34.3	30.8	30.8	41	41	42	42	3.0	19.1	14.9	14.9		
Cameroon	26.7	33.1	35.8	35.8	40	42	41	41	9.8	17.7	21.0	21.0		
Cape Verde	73.1	83.8	83.4	83.4	18	11	12	12	67.0	80.2	79.8	79.8		
Central African Republic	48.1	46.8	46.8	46.8	30	37	36	37	36.2	34.6	34.6	34.6		
Chad	43.8	51 3	51 3	51 3	32	33	32	32	30.9	40.1	40.1	40.1		
Comoros	58.2	63.2	63.2	63.2	25	24	24	24	48.6	54.8	54.8	54.8		
Congo (Brazzaville)	64.6	50.2 50 1	59.1	59.1	20	27	27	20	40.0 56.6	49.5	49.5	49.5		
Congo Democratic Ren	04.0	56.1	56.1	56.7	20	21	20	29	50.0	40.0	40.0	40.5		
Cota d'Ivaira	20.0	40.0	40.0	40.0	05	25	05	20	05.7	00.4	00.4	00.4		
	39.0	40.3	40.3	40.3	35	35	35	30	25.7	30.4	30.4	30.4		
Djibouti	49.5	73.1	87.9	87.9	29	10	8	8	37.9	67.1	85.4	85.4		
Equatorial Guinea														
Eritrea	80.8	82.7	77.2	77.2	11	12	16	16	76.6	78.9	72.2	72.2		
Ethiopia	93.7	91.2	88.7	88.7	3	5	4	5	92.6	89.4	86.4	86.4		
Gabon														
Gambia	82.3	94.0	94.0	94.0	8	4	3	3	78.5	92.9	92.9	92.9		
Ghana	82.1	86.8	86.8	86.8	9	9	10	10	78.2	84.0	84.0	84.0		
Guinea	55.5	71.2	64.8	64.8	26	19	22	22	45.4	64.7	56.8	56.8		
Guinea-Bissau	63.2	63.2	63.2	63.2	22	23	23	23	54.9	54.9	54.9	54.9		
Kenya														
Lesotho	60.8	68.3	68.3	68.3	24	21	21	21	51.8	61.2	61.2	61.2		
Liberia														
Madagascar	46.6	54.8	60.5	60.5	31	30	25	25	34.3	44.5	51.5	51.5		
Malawi	76.1	72.5	73.5	73.5	14	17	17	17	70.8	66.3	67.6	67.6		
Mali	51.5	56.7	49.8	49.8	27	28	34	34	40.4	46.9	38.3	38.3		
Mauritania	38.2	48.0	52.5	52.5	37	36	31	31	24.0	36.1	41.6	41.6		
Mauritius	63.2	66.7	70.9	70.9	23	22	19	19	54.9	59.2	64.4	64.4		
Mozambique	40.1	53.9	58.3	58.3	33	32	26	26	26.3	43.3	48.8	48.8		
Namihia	89.8	74.6	77.3	77.3	5	15	15	15	87.7	68.9	72.3	72.3		
Niger	30.6	60.2	40.3	40.3	39	26	40	40	14.5	51.1	26.5	26.5		
Nigeria														
Rwanda														
Sao Tome and Principe	64.5	55.0	54.6	18.3	21	20	20	35	56.4	15.8	44.3	36.5		
Senegal	29.0	50.9	50.0	40.3	21	29	29	33	24.9	40.0	44.5	20.0		
Sevehelles	30.9	50.2	50.2	04.0	30	34	33	33	24.0	30.0	30.0	30.0		
Sierra Leone	30.0	34.9	34.9	34.3	I	3	2	4	90.8	54.0	94.0	54.0		
Somalia														
South A frice							-							
South Africa	91.3	87.9	87.9	87.9	4	8	9	9	89.5	85.3	85.3	85.3		
Sudan	84.4	96.7	88.0	93.8	6	2	7	4	81.0	96.2	85.5	92.6		
Swaziland	76.2	88.3	88.3	88.3	13	6	5	6	70.9	85.9	85.9	85.9		
Tanzania	19.8	46.1	46.1	58.2	42	38	37	28	1.2	33.7	33.7	48.6		
Togo	65.8	62.7	53.2	53.2	19	25	30	30	58.1	54.2	42.4	42.4		
Uganda	40.0	42.9	42.9	42.9	34	40	39	39	26.1	29.7	29.7	29.7		
Zambia	49.8	53.9	58.3	58.3	28	31	27	27	38.3	43.4	48.8	48.8		
Zimbabwe	74.6	69.7	69.7	69.7	16	20	20	20	68.9	62.9	62.9	62.9		
Algeria	77.4	76.3	80.9	80.9	12	14	13	13	72.4	71.1	76.8	76.8		
Egypt	84.0	86.1	86.1	86.1	7	10	11	11	80.5	83.1	83.1	83.1		
Libya														
Morocco	81.7	77.4	79.6	79.6	10	13	14	14	77.7	72.4	75.1	75.1		
Tunisia	75.3	88.3	88.3	88.3	15	7	6	7	69.8	85.8	85.8	85.8		

Category: Human Development Sub-Category: Education

INDICATOR: RATIO OF GIRLS TO BOYS IN SCHOOL

The final indicator of educational access employed in the Index measures the ratio of girls to boys in primary and secondary education (both public and private). Data are from UNESCO as reported in the World Bank's World Development Indicators (WDI) 2009.¹

Across countries in Africa, the ratio of girls to boys in primary and secondary school is about 9 to 10. There are more girls than boys in primary and secondary school in the Seychelles, Libya, Lesotho, Namibia, Cape Verde, Tunisia, Mauritius, Mauritania, São Tomé and Príncipe, Botswana, the Gambia, and Rwanda. The lowest ratios are in Chad, where there are 6.4 girls to 10 boys.

Technical Notes

In the Index of African Governance, figures are adjusted before scores are calculated so that a 100 percent primary school completion rate is the best possible value. For any country with rates above 100 percent, we assign a value of 100 percent when calculating the Index.

Data are unavailable for the Central African Republic and Somalia. Other estimates are for the given year or closest available (earlier if possible), as summarized below:

- Data for 2007 are unavailable for Guinea, Kenya, Lesotho, Libya, Mauritania, Nigeria, Senegal, Togo, Tunisia, and Zimbabwe. Figures for 2006 are used as estimates for each of these countries.
- Data after 2005 are unavailable for Algeria, Benin, Botswana, the Comoros, Morocco, South Africa, Swaziland, and Uganda. Figures for 2005 are used as estimates for 2006–2007.
- Data for 2006 are unavailable for Chad, Mauritius, Rwanda, the Seychelles, and Zambia. Figures for 2005 are used as estimates.
- Data after 2004 are unavailable for Congo (Brazzaville) and Egypt. Figures for 2004 are used as estimates.
- Algeria: 2000 gives 2002 figure as estimate.
- Angola: Data are unavailable after 1998. The 1998 figure is used as an estimate for all years.
- Burundi: 2000 and 2002 give the 2003 figure as estimates.
- Cameroon: 2000 gives 1999 figure as estimate. 2002 gives 2001 figure as estimate.
- Cape Verde: 2000 gives 2001 figure as estimate.
- The Democratic Republic of the Congo: 2006 gives the 2007 figure as estimate, 2005 gives the 2003 figure as estimate, and 2000 gives the 1999 figure as estimate.
- Côte d'Ivoire: 2005–2007 give the 2002 figure as estimates.
- Equatorial Guinea: 2005–2007 give the 2002 figure as estimates.
- Gabon: 2002 and 2005–2007 give the 2000 figure as estimates.
- The Gambia: 2005 gives the 2004 figure as estimate.
- Guinea-Bissau: 2002 and 2005–2007 give the 2001 figure as estimates.
- Liberia: 2002 and 2005–2007 give the 2000 figure as estimates.
- Libya: 2000 gives the 2002 figure as estimate.
- Madagascar: 2000 and 2002 give the 2005 figure as estimate.
- Mali: 2002 gives the 2003 figure as estimate.
- Rwanda: 2002 gives the 2001 figure as estimate.

¹ Last accessed 22 July 2009.

- São Tomé and Príncipe: 2000 gives 2002 figure as estimate.
- Sierra Leone: 2005–2006 give the 2007 figure as estimate. 2000 and 2002 give the 2001 figure as estimate.
- Sudan: 2000 gives 2001 figure as estimate.
- Tanzania: Data are unavailable after 1999. The 1999 figure is used as estimate for all years.
- Zimbabwe: 2005 gives 2006 figure as estimate.

RATIO OF GIRLS TO BOYS IN PRIMARY AND SECONDARY EDUCATION (%)

UNESCO (as reported in WDI 2008)

						ED D	ATA:						
	RAW	DATA	:		Ranke	d			Scaled Overall 0-100				
	2000	2005	2006	2007	2000	2005	2006	2007	2000	2005	2006	2007	
Angola	82.1	82.1	82.1	82.1	31	37	37	38	59.5	59.5	59.5	59.5	
Benin	64.2	73.5	73.5	73.5	49	42	44	45	18.8	39.8	39.8	39.8	
Botswana	101.6	100.7	100.7	100.7	1	1	1	1	100.0	100.0	100.0	100.0	
Burkina Faso	70.0	78.3	79.9	81.8	42	38	39	39	32.1	50.7	54.5	58.7	
Burundi	79.9	84.0	88.6	90.0	35	32	29	28	54.6	63.7	74.2	77.4	
Cameroon	82.4	82.6	82.8	84.5	30	35	35	33	60.0	60.7	61.0	64.9	
Cape Verde	99.0	99.3	103.1	103.8	8	11	1	1	97.8	98.4	100.0	100.0	
Central African Republic													
Chad	55.9	61.0	61.0	64.3	51	51	51	51	0.0	11.6	11.6	19.2	
Comoros	84.1	84.2	84.2	84.2	28	31	33	34	64.0	64.2	64.2	64.2	
Congo (Brazzaville)	84.5	90.2	90.2	90.2	27	27	27	27	64.8	77.7	77.7	77.7	
Congo, Democratic Rep.	79.8	73.2	73.4	73.4	36	43	45	46	54.2	39.4	39.8	39.8	
Cote d'Ivoire	69.1	68.4	68.4	68.4	44	49	49	49	30.0	28.4	28.4	28.4	
Diibouti	71.0	75.6	75.8	78.9	40	40	40	40	34.3	44.8	45.3	52.1	
Equatorial Guinea	86.3	82.5	82.5	82.5	26	36	36	37	68.9	60.4	60.4	60.4	
Equatorial Guinea	77.4	71.7	72.0	77.8	37	47	47	42	48.8	35.9	36.6	49.6	
Ethiopia	65.1	77.5	80.5	82.6	47	39	38	36	21.0	49.0	55.9	60.6	
Gabon	95.8	95.8	95.8	95.8	15	20	21	21	90.5	90.5	90.5	90.5	
Gambia	81.7	98.4	101.8	100.3	33	16	1	1	58.6	96.5	100.0	100.0	
Ghana	89.4	92.6	93.9	95.2	24	25	. 24	23	76.0	83.2	86.3	89.1	
Guinea	61.3	72.6	74.4	74.4	50	46	42	44	12.3	37.9	42.0	42.0	
Guinea-Bissau	65.0	65.0	65.0	65.0	48	50	50	50	20.6	20.6	20.6	20.6	
Kenva	97.6	95.8	96.1	96.1	12	21	19	20	94.5	90.5	91.1	91 1	
Lesotho	107.2	103.9	103.0	103.0	1	1	1	1	100.0	100.0	100.0	100.0	
Liberia	72.7	72.7	72.7	72.7	30	45	16	47	38.1	38.1	38.1	38.1	
Madagascar	05.9	05.9	06.0	06.5	14	10	20	10	00.5	00.5	00.0	02.0	
Malawi	95.6	95.0	90.0	90.5	14	19	20	19	90.5	90.5	90.9	92.0	
Mali	92.0	90.9	74.4	39.0	21	15	11	14	03.3	97.4	100.0	99.5	
Iviali	06.5	102.0	101 5	10.5	40	44	43	41	20.5	30.2	41.9	100.0	
Mauritina	95.0	102.0	101.5	107.5	17	10	12	1	00.7	00.0	100.0	100.0	
Mauritius	98.2	99.6	99.6	102.2	10	10	13	1	95.9	99.0	99.0	100.0	
Mozambique	74.9	83.0	84.7	85.4	38	33	32	32	43.2	61.5	65.3	67.0	
Namibia	103.2	103.4	103.8	103.8	1	1	1	1	100.0	100.0	100.0	100.0	
Niger	65.8	69.9	70.6	71.5	46	48	48	48	22.5	31.8	33.3	35.4	
Nigeria Duranda	80.1	83.0	84.0	84.0	34	34	34	35	54.9	61.4	63.7	63.7	
Kwallua Sao Tomo and Drinaina	96.1	101.9	101.9	100.2	13	1	1	1	91.1	100.0	100.0	100.0	
Sao Tome and Emerge	93.5	99.0	99.0	101.3	19	13	15	1	85.2	97.7	97.7	100.0	
Senegai	82.0	90.8	92.4	92.4	32	26	26	26	59.2	79.2	82.8	82.8	
Seychelles	101.4	100.3	100.3	105.6	1	1	1	1	100.0	100.0	100.0	100.0	
Sierra Leone	70.7	86.4	86.4	86.4	41	30	31	31	33.5	69.2	69.2	69.2	
Somalia													
South Africa	100.4	99.9	99.9	99.9	1	9	12	13	100.0	99.8	99.8	99.8	
Sudan	88.0	88.9	89.3	87.6	25	28	28	29	72.8	74.8	75.7	71.9	
Swaziland	95.4	94.7	94.7	94.7	16	23	23	25	89.6	87.9	87.9	87.9	
Tanzania	98.9	98.9	98.9	98.9	9	14	16	16	97.5	97.5	97.5	97.5	
Togo	69.1	74.2	75.4	75.4	43	41	41	43	30.1	41.6	44.2	44.2	
Uganda	92.8	97.6	97.6	97.6	20	17	17	17	83.6	94.6	94.6	94.6	
Zambia	91.3	92.7	92.7	95.6	23	24	25	22	80.3	83.5	83.5	89.9	
Zimbabwe	94.5	97.2	97.2	97.2	18	18	18	18	87.4	93.7	93.7	93.7	
Algeria	97.6	99.3	99.3	99.3	11	12	14	15	94.6	98.4	98.4	98.4	
Egypt	92.4	94.7	94.7	94.7	22	22	22	24	82.8	88.0	88.0	88.0	
Libya	102.9	107.8	105.4	105.4	1	1	1	1	100.0	100.0	100.0	100.0	
Morocco	82.4	87.4	87.4	87.4	29	29	30	30	60.2	71.3	71.3	71.3	
Tunisia	100.0	103.6	103.7	103.7	1	1	1	1	100.0	100.0	100.0	100.0	

Category:	Human Development
Sub-Category:	Education

INDICATOR: PUPIL-TEACHER RATIO, PRIMARY

In addition to educational access, educational quality is also a key governance outcome. As a rough indicator of educational quality the Index uses one simple measure, which is available for most African countries: the pupil-teacher ratio in primary school. For a fuller assessment of educational quality, a number of other indicators should be considered, along with qualitative assessments. Measures of teacher qualifications and student test scores, for instance, are available for selected African countries from UNESCO, as well as from national statistical agencies.

Our data on the pupil-teacher ratio are from UNESCO, as reported in the World Bank's World Development Indicators (WDI) 2009.¹ The pupil-teacher ratio gives the number of students enrolled in primary school divided by the number of teachers in primary school (in any teaching assignment).

This rough indicator of educational quality shows enormous variation across the continent. The latest estimates are that there were about 12.5 teachers per student in the Seychelles in 2007 versus 102.4 per student in the Central African Republic in 2008. On average across countries, there were about 40.3 teachers per student in 2007. The Central African Republic's pupil-teacher ratio was almost 40 pupils per teacher more than that of any other country in the region. Other countries with high estimated pupil-teacher ratios (above 50 to 1) include Rwanda (69.3:1), Mozambique (64.8:1), Chad (60.4:1), Congo (Brazzaville) (58.5:1), Tanzania (53.1:1), Burundi (52.0:1), and Mali (51.7:1). Countries with the lowest estimated pupil-teacher ratios include, after the Seychelles, Tunisia, Liberia, and Mauritius.

Technical Notes

Data are unavailable for Malawi and Libya.² Other estimates are for the given year or closest available (earlier if possible), as summarized below:

- Data for 2007 are unavailable for Benin, Lesotho, Nigeria, São Tomé and Príncipe, Tunisia, Uganda, and Zimbabwe, and figures for 2006 are used as estimates for each of these countries.
- Data after 2005 are unavailable for Botswana, the Comoros, Kenya, South Africa, and Swaziland, and figures for 2005 are used as estimates for 2006–2007.
- Data for 2006 are unavailable for Chad and the Seychelles, and figures for 2005 are used as estimates.
- Data after 2004 are unavailable for Gabon, and figures for 2004 are used as estimates for 2005–2007.
- Angola: Data are unavailable for 1999–2006. 2000 and 2002 give 1998 figure as estimate and 2005 and 2006 give the 2007 figure as estimate.
- Central African Republic: Only the 2008 figure is available. It is given as an estimate for 2005–2007, but not for 2000 and 2002.
- Democratic Republic of the Congo: 2006 gives 2007 figure as estimate, 2005 gives 2003 figure, and 2000 gives 1999 figure.
- Côte d'Ivoire: 2005 gives 2006 figure as estimate.
- Djibouti: 2002 gives 2001 figure as estimate.
- Equatorial Guinea: 2006 gives 2007 figure as estimate, 2005 gives 2003 figure as estimate, 2002 gives 2001 figure as estimate.
- Ethiopia: Data are unavailable after 1999. This figure is used as an estimate for all years.
- The Gambia: 2005 gives 2004 figure as estimate.

¹ Last accessed 22 July 2009.

² An estimate is available for Malawi in 1995, but it not used here because it is so out of date.

- Guinea-Bissau: Data are unavailable after 2001. This figure is given as an estimate for 2002 and 2005–2007.
- Liberia: 2002 gives 2000 figure as estimate. 2005 and 2007 give 2006 figure as estimate.
- Namibia: 2002 gives 2001 figure as estimate.
- São Tomé and Príncipe: 2000 gives 1999 figure as estimate.
- Sierra Leone: 2000 and 2002 give 2001 figure as estimate. 2005–2006 give 2007 figure as estimate.
- Somalia: Data after 2004 are unavailable, and the 2004 figure is used as an estimate for 2005–2007. 2000 gives 1999 figure as estimate.
- Sudan: 2000 gives 2001 figure as estimate.
- Zimbabwe: 2005 gives 2006 figure as estimate.

PUPIL-TEACHER RATIO, PRIMARY

UNESCO (as reported in WDI 2009)

					SCAL	ED D	ATA:						
	RAW	DATA	۱:		Ranke	d			Sc	aled	Overal	10-100	
	2000	2005	2006	2007	2000	2005	2006	2007	20	000	2005	2006	2007
Angola	41.8	41.0	41.0	41.0	28	28	30	31	6	7.4	68.3	68.3	68.3
Benin	52.6	46.8	43.6	43.6	43	37	32	33	5	5.3	61.8	65.3	65.3
Botswana	26.7	24.2	24.2	24.2	7	5	5	6	8	4.1	86.9	86.9	86.9
Burkina Faso	48.9	47.2	45.8	47.7	40	38	37	39	5	9.5	61.4	62.9	60.9
Burundi	56.8	48.7	54.2	52.0	45	41	45	45	5	0.7	59.7	53.6	56.0
Cameroon	51.9	47.8	44.7	44.4	42	40	36	36	5	6.2	60.7	64.2	64.5
Cape Verde	28.7	26.0	25.4	24.9	10	8	7	7	8	1.9	84.9	85.7	86.2
Central African Republic		102.4	102.4	102.4		51	51	51			0.0	0.0	0.0
Chad	68.6	63.2	63.2	60.4	50	47	48	48	3	7.5	43.6	43.6	46.7
Comoros	36.8	35.0	35.0	35.0	19	21	18	17	7	2.9	75.0	75.0	75.0
Congo (Brazzaville)	60.5	82.8	54.8	58.5	47	50	46	47	4	6.6	21.8	52.9	48.8
Congo, Democratic Rep.	26.0	34.3	38.3	38.3	5	19	24	23	8	4.9	75.7	71.3	71.3
Cote d'Ivoire	45.0	46.1	46.1	41.0	32	36	39	30	6	3.8	62.6	62.6	68.3
Djibouti	32.0	34.6	33.6	35.5	14	20	16	19	7	8.2	75.4	76.5	74.4
Equatorial Guinea	43.4	32.0	27.6	27.6	29	15	10	10	6	5.7	78.3	83.1	83.1
Eritrea	47.5	47.5	47.2	47.9	37	39	40	40	6	1.0	61.0	61.3	60.6
Ethiopia	46.0	46.0	46.0	46.0	35	35	38	38	6	2.7	62.7	62.7	62.7
Gabon	46.6	36.0	36.0	36.0	36	23	21	20	6	2.0	73.8	73.8	73.8
Gambia	36.9	35.3	35.2	40.9	20	22	19	29	7.	2.8	74.6	74.8	68.4
Ghana	33.8	32.8	35.4	35.3	16	16	20	18	7	8.3	77.4	74.5	74.6
Guinea	45.6	44.9	44.5	45.4	34	34	35	37	6	3.2	64.0	64.4	63.4
Guinea-Bissau	44.1	44.1	44.1	44.1	30	33	34	35	6	4.9	64.9	64.9	64.9
Kenya	34.4	39.5	39.5	39.5	17	26	26	25	7	5.6	69.9	69.9	69.9
Lesotho	47.9	41.6	40.4	40.4	38	29	28	27	6	0.6	67.6	68.9	68.9
Liberia	38.3	19.3	19.3	19.3	24	2	3	3	7	1.3	92.4	92.4	92.4
Madagascar	48.0	53.6	48.1	48.7	39	44	41	41	6	0.5	54.3	60.3	59.7
Malawi													
Mali	65.3	54.4	55.6	51.7	49	45	47	44	4	1.2	53.4	52.0	56.4
Mauritania	45.0	40.3	41.4	42.5	33	27	31	32	6	3.8	69.0	67.8	66.6
Mauritius	26.1	22.3	21.7	21.5	6	4	4	4	8	4.8	89.0	89.7	89.9
Mozambique	64.0	66.3	67.4	64.8	48	49	50	49	4	2.7	40.1	38.9	41.8
Namibia	31.6	30.8	30.8	29.9	13	14	14	13	7	8.7	79.6	79.6	80.6
Niger	40.7	43.7	40.0	39.7	25	31	27	26	6	8.6	65.3	69.4	69.7
Nigeria	41.1	37.2	40.4	40.4	26	24	29	28	6	8.2	72.5	68.9	68.9
Rwanda	54.0	65.9	65.9	69.3	44	48	49	50	5	3.8	40.5	40.5	36.8
Sao Tome and Principe	36.0	30.8	30.8	30.8	18	13	13	14	7	3.8	79.6	79.6	79.6
Senegal	50.9	41.7	38.5	34.2	41	30	25	16	5	7.2	67.5	71.0	75.8
Sevchelles	14.7	13.7	13.7	12.5	1	1	1	1	9	7.6	98.6	98.6	100.0
Sierra Leone	37.3	43.7	43.7	43.7	22	32	33	34	7	2.4	65.2	65.2	65.2
Somalia	27.9	27.9	27.9	27.9	8	10	11	11	8	2.9	82.9	82.9	82.9
South Africa	33.5	29.6	29.6	29.6	15	12	12	12	7	6.7	80.9	80.9	80.9
Sudan	24.0	29.0	34.3	36.7	4	11	17	21	8	7.2	81.6	75.7	73.1
Swaziland	31.3	32.9	32.9	32.9	12	17	15	15	7	9.1	77.3	77.3	77.3
Tanzania	41.4	55.9	52.4	53.1	27	46	44	46	6	79	51.7	55.6	54.8
Togo	37.5	33.6	37.6	39.1	23	18	22	24	7	22	76.5	72.1	70.3
10go Llaanda	59.4	51.7	49.0	49.0	46	43	42	42	7.	7.8	56.3	59.3	59.3
Ugallua Zambia	45.0	51.1	51.0	49.3	-10	40	42	43	4	3.9	57.1	56.0	50.0
Zainiola Zimbahuwa	37.0	38.2	38.2	38.2	21	42	40	-+3	0	2.7	71 4	71.4	71 4
Algeria	28.4	25.4	24.5	24.0	21	20	23 6	5	1	<i>1</i> 23	85.6	86.6	87.2
Egypt	20.4	25.4	24.0	24.0	9	0	0	0	8	0.0	05.0	00.0	07.2
Egypt	23.U	25.0	∠0.U	21.1	2	1	đ	0	8	ə.ə	00.4	04.9	03./
Libya	20.0	27.4	27.0	27.4	44	0	0	0	-	1.0	027	02.0	02 4
Tunisia	20.0	20.0	10.1	10.1	3	3	3	2	8	1.9 8.1	91.6	92.6	92.6
i umsia	20.2	20.0	10.1	10.1	5	5	2	4	0	w1 1	01.0	02.0	32.0