



Human Development Indices

A statistical update 2008



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Foreword

Human development is about enlarging people's choices, allowing them to develop their full potential and to lead productive, creative lives in dignity and in accordance with their needs and interests. Almost two decades ago the *Human Development Report* sent a clear message that while economic growth is an important measure of development it is nonetheless limited in capturing how expanding income translates also into human development defined more broadly. In an attempt to measure that concept, the authors of that first Report introduced the Human Development Index (HDI) by combining indicators of income, education and health into a single index. By ranking countries according to their HDI value, the Report has helped shift the debate away from gross domestic product (GDP) per capita as the only measure of development.

As part of continuing efforts to ensure that the HDI is the best tool it can be, *The Human Development Indices: A Statistical Update 2008* includes the 2008 HDI (with data from 2006) in a separate and distinct format. The tables are being published separately for the first time ever to explain some major data changes used to measure income, setting the stage for future revisions of the HDI itself. This is not a normal *Human Development Report*—rather this publication is intended to provide an update of key statistics, in particular given the recent availability of the income data used to generate the HDI. The cycle of annual reports will continue—with the 2009 edition focusing on the challenges around migration, both behind and beyond borders.

The data series on GDP per capita (in purchasing power parity US\$) has been revised taking into account the latest estimates of purchasing power parities (PPPs). This revision implied a very substantial adjustment for many countries, resulting in changes in HDI values and, in many cases, HDI ranks, too. This *Update* reviews national trends and regional values in HDI with the new GDP series, using 2006 data calculated for 179 countries, and presents some interesting findings. For example, even though the very large human development divide between rich and poor countries still persists,

many countries have witnessed improvements in education and health. All 80 countries for which data are available for both 1980 and 2006 have registered progress in education.

The *Update* also presents a number of potential methodological innovations in order to better capture gender and income inequalities. To this end, the *Update* looks at disparities between men and women and among different income groups. For example, despite the huge advances in women's rights and in key areas like education, gender inequalities are still pervasive. In addition, the gap between the rich and the poor and among different socio-economic groups is widening, even in many of the countries that experienced impressive economic growth in the last decade. The *Update* identifies pressing methodological challenges to be overcome in the run up to the 2010 global *Human Development Report*.

Work is beginning on the 2010 Report, which will mark the twentieth anniversary of the HDR and which will involve a major retrospective on the achievements of the human development approach and addressing the challenges of the 21st Century.

I hope you find this statistical update informative and useful in moving the human development approach forward.



Kemal Derviş
Administrator

United Nations Development Programme

This report does not necessarily reflect the views of the United Nations Development Programme, its Executive Board or its Member States. The report is an independent publication commissioned by UNDP. It is the fruit of a collaborative effort by the Human Development Report team with additional contributions and advice from external experts and advisers.

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Human development indices: a statistical update

This statistical report was prepared in order to update and review the main composite indices on human development where new data have become available. This update comes in advance of a report being prepared for 2009, about migration, and the 2010 report, which will be a major retrospective and prospective about human development (see box 1).

Introduction

This year, there has been an important change in the data series for one of the key indicators used in these indices—the gross domestic product (GDP) per capita—following the completion of a major new international study on comparative prices. We present here the new ranks and values of each of the indices affected and, for the Human Development Index (HDI) in particular, demonstrate the effects of this revision.

The first section of this report introduces the human development approach for readers who may be new to the topic and describes the composite indices themselves. Readers familiar with the approach may proceed directly to the second section, which highlights the major changes in this year's HDI, and the third section, which presents the actual results—ranks, values and trends—in the HDI. The fourth section deals with the poverty and gender measures.

2010 will mark the twentieth anniversary of the *Human Development Report*. Some readers will recall the controversy and debates that surrounded the launch of the first report in 1990, which conceptualized the human development approach and introduced the Human Development Index (HDI). Since then, there has been a series of global reports covering themes as varied as financing human development, participation, gender, cultural liberty and climate change. In each case, following the advice of Amartya Sen, the report has sought to achieve a breakthrough on at least one of three fronts: conceptual, measurement and policy.

Over the past twenty years, the world has not stood still. Major historical events have unfolded, including the ramifications of the end of the Cold War, a rising tide of democratization around the world and the rise of China and India as economic giants. Also since the late 1980s, HIV/AIDS has appeared as a major threat to human development achievements, affecting a large group of countries, in particular in sub-Saharan Africa. The formulation of the Millennium Development Goals (MDGs) compact by 189 world leaders represented a purposeful and unprecedented declaration of solidarity to reduce human poverty and suffering by 2015 (UN 2000).

Not surprisingly, the dominant development paradigms have evolved accordingly, with poverty, inequality and institutions assuming far more prominent positions in driving development thinking and policies. As the human development paradigm stated, economic growth is a necessary but not a sufficient condition for human development to occur. Recent years have seen the recognition of the indivisible nexus of growth–inequality–poverty and

Source: Sen 1979; UN 2000.

the verification that the pattern and structure of growth matters for poverty alleviation. In this context the role of institutions has also gained increased importance in explaining differences in growth performance and the link with poverty alleviation in what it is known as ‘pro-poor growth’.

The jubilee edition in 2010 is an apt occasion to review the contributions of the *Human Development Report* to conceptualizations of development, as well as its impacts on development in practice. It is also a major opportunity for in-depth consideration of some key challenges facing human development measurement. For example, how should we consider broader aspects of development such as freedom of choice or opportunity? Does the approach sufficiently consider the disparities and inequalities that characterize development? Also, how can we take proper account of the multiple dimensions of poverty and deprivation?

In this regard, motivated by Sen’s ‘capabilities and functionings’ approach (Sen 1979), researchers are testing innovative approaches to measurement to incorporate further dimensions and to make the index sensitive to the effects of inequalities. The result is the development of complete profiles rather than one scalar value, as produced by the current HDI.

In the upcoming months, the Human Development Report Office will conduct a series of regional and country level consultations with leading development thinkers and practitioners, inside and outside of government. The objective is to obtain a broad sense of views on the contributions of the human development approach and innovations to ensure its continuing salience and influence.

1 Measuring human development

“The process of economic growth is a rather poor basis for judging the progress of a country; it is not, of course, irrelevant but it is only one factor among many.”

Amartya Sen (Sen 2004)

Human development is a process of enlarging people’s choices and enhancing their capabilities. The process concerns the creation of an enabling environment in which people can develop their full potential and lead productive, creative lives in accord with their needs and interests. It is a broad concept with as many dimensions as there are ways of

enlarging people’s choices. Among the most basic and critical dimensions are: a long and healthy life, access to knowledge, and a decent standard of living. Without these basic dimensions, other dimensions such as political freedom, the ability to participate in one’s community, self respect and so on will often remain inaccessible.

The ability to measure and closely monitor human development is integral to the overall approach. The first *Human Development Report* in 1990 introduced the HDI, which was a new composite measure. This enabled a breakthrough in discussions about devel-

opment at various levels, including public and popular debates and in policy-making circles.

Up to that point, the dominant view of development presumed that the level and growth of income sufficed as the criterion for human well-being. However, there was growing criticism of this assumption and accumulating evidence that while economic growth was necessary to advancements in well-being it was far from sufficient as the sole condition. Many, such as Mahbub ul Haq, the Pakistani economist who played a key role in formulating the human development approach and was the first lead author of the *Human Development Report*, came to recognize the need for an alternative measure that went beyond GDP; this led to the HDI, which has become widely referenced and used.

The Human Development Index (HDI)

The HDI is the original and best-known human development composite index. It is a summary measure of a country's average achievement in attaining:

- A long and healthy life (as measured by life expectancy at birth).
- Access to knowledge (today measured by two indicators: the adult literacy rate and the combined gross enrolment ratio (GER) in primary, secondary and tertiary education).
- A decent standard of living (as measured by the GDP per capita expressed in purchasing power parity [PPP] US dollars).

These three dimensions are standardized to values between 0 and 1, and the simple average (or arithmetic mean) is taken to arrive at the overall HDI value in the range 0 to 1. Thresholds are used to classify HDI values as high, medium or low (at or above 0.800; between 0.500 and 0.800; and below 0.500, respectively).

Since its inception the HDI has been a useful tool to measure human development across different countries and regions. However, the HDI uses equal weights across dimensions—an arbitrary if commonly used assumption. What would happen if the weights were allowed to

vary? Would comparisons be robust, or could they reverse? (see box 2).

Over time, the need became evident for complementary measures that could give a more comprehensive picture of the state of human development. A major shortcoming was that the HDI relies only on national averages; it does not reflect differences in human development within countries, the effects of inequality on human development, nor insights into the status of the poorest and most deprived members of society. New measures were introduced to address these drawbacks. The 1995 *Human Development Report* (UNDP 1995) presented two new composite indices on gender—the Gender-related Development Index (GDI) and the Gender Empowerment Measure (GEM)—and the 1997 report (UNDP 1997) introduced the Human Poverty Index (HPI).

The Gender-related Development Index (GDI) complements the basic HDI with a distribution-sensitive measure by 'discounting' the HDI for gender inequalities in its component indicators. Thus, in the presence of any gender inequalities in the component indicators, the GDI for a given country will be less than its HDI. In practice, this is the case for all countries.

The impact of gender inequality is assessed using the concept of an inequality aversion parameter (Atkinson 1970). The larger the value of this parameter, the more heavily the index is discounted. For the GDI, the inequality aversion parameter is set at two, placing a moderate penalty on gender inequalities in average achievement of each of the dimensions. The parameter choice is within the range discussed in the inequality literature. (For more details please refer to *Technical note 1*.)

The Gender Empowerment Measure (GEM) seeks to reflect the extent to which women and men are able to participate actively in economic and political life and take part in decision-making. While the GDI focuses on expansion of capabilities, the GEM is concerned with their use. It captures gender inequality in three key areas:

- Political participation, as measured by the percentage of seats held by women in national parliaments.

The HDI is a simple average of achieved well-being in three components: life expectancy (L), educational achievement (E) and GDP per capita (G). Comparisons arising from the HDI are dependent upon the weights used; any given ranking could change if different weights were employed. It is thus useful to know how robust HDI country ranks are to variation in the weights.

The robustness of the assumed weights can be tested. A given comparison between pairs of countries can be considered to be robust if the ranking is not reversed when alternative weights are used. In the table below, the ranking between Australia and Sweden is fully robust, in that the ranking is the same regardless of the weights used; the ranking between Canada and Ireland is not *fully* robust, although it *is* robust to smaller changes in the weights.

Overall, how robust are HDI ranks? When tests are applied to the 2004 HDI cross-country rankings, 70 percent of all possible country-pair comparisons are fully robust, meaning that the rankings would not be reversed at any non-negative weights that sum to 1. If weights are restricted to between 0.25 and 0.5 for each dimension, then 92 percent of all comparisons are robust. In other words, most rankings would not be affected by small changes in the relative weights of the three dimensions. At the same time, at some parts of the distribution, including among the top ten countries in 2004 (as shown in the Canada and Ireland example), the rankings are sensitive to changes in the weights of the underlying components.

Robustness comparisons

	Weighted indices			HDI 2004 (H=L+E+G)
	Life expectancy (L)	Educational achievement (E)	GDP per capita (G)	
1. Equal weights (0.33 L, E and G)				
Australia	0.308	0.331	0.318	0.957
Sweden	0.307	0.327	0.316	0.951
Ireland	0.294	0.330	0.332	0.956
Canada	0.306	0.323	0.320	0.950
2. Moderately changed weights (0.25 L and G; 0.5 E)				
Australia	0.231	0.497	0.239	0.966
Sweden	0.231	0.491	0.237	0.959
Ireland	0.221	0.495	0.249	0.964
Canada	0.230	0.485	0.240	0.955
3. Greatly changed weights (0.6 L, 0.3 E, 0.1 G)				
Australia	0.555	0.298	0.095	0.948
Sweden	0.553	0.295	0.095	0.943
Canada	0.551	0.291	0.096	0.938
Ireland	0.529	0.297	0.010	0.926

Source: calculated based on table 1 in UNDP 2006a.

Source: Foster et al. 2008; UNDP 2006a.

- Economic participation and decision-making power, as measured by the percentage shares of women and men among legislators, senior officials and managers as well as in professional and technical fields.
- Power over economic resources as measured by the estimated earned income of females and males (in PPP US\$).

The Human Poverty Indices (HPI-1 and HPI-2) were introduced to address the need for measures that were more focused on the disadvantaged within society, and complement

concepts of poverty that were largely monetary. They look directly at deprivations in access to resources. The HPI-1 (developing countries) measures these deprivations in the HDI's three basic dimensions as follows:

- Vulnerability to early death (as opposed to a long and healthy life), as measured by the probability at birth of not surviving to age 40 years.
- Exclusion from the world of knowledge and communication, as measured by the adult illiteracy rate.

- Lack of access to adequate economic provisioning, as measured by the unweighted average of two indicators: the percentage of the population not using an improved water source and the percentage of children under weight for their age.

For the HPI-2 (industrialized countries), the targets are set slightly higher and one additional area of deprivation—social exclusion—is added:

- Vulnerability to early death is measured by the probability at birth of not surviving to age 60 years.
- Exclusion from the world of knowledge and communication is measured by the percentage of the population aged 16–65 years lacking adequate functional literacy skills.
- Lack of access to adequate economic provisioning is measured by the percentage of the population living below the income poverty line (i.e., less than 50 percent of the median-adjusted household disposable income).
- Social exclusion is measured by the long-term unemployment rate (i.e., the percentage of the labour force that has been unemployed for at least 12 months).

A major drawback of the HPI-2 is that measures of functional illiteracy and the poverty rate rely on surveys that are carried out in industrial-

ized countries very infrequently; hence there is little movement in successive years in the index itself. Furthermore, the other two indicators—long-term unemployment and longevity—tend to vary relatively little among countries and from one year to the next.

Another concern relates to the adoption of different targets for industrialized and developing countries. For example, the use of two age limits for the definition of deprivation of a long and healthy life implies that dying between the ages of 41 and 60 years is acceptable in developing countries but not in industrialized ones. This, of course, is an unintended value judgement. Similarly, different goals for access to knowledge create the impression that adults in industrialized countries should be functionally literate, yet functionally *illiterate* adults in a developing country are not considered deprived if they can read or write a simple sentence about their everyday life.

In various attempts to address these shortcomings, significant advances have been made in measuring ‘multidimensional poverty’ and human development. These efforts have also benefited from improved availability of data. Box 3 highlights some current directions in measuring multidimensionality, raising some of the themes to be explored more fully in the 2010 report.

2 About this year's HDI

In this section we describe the main sources of data for the indicators used in the calculation of the HDI and key revisions to the data series. The resulting effects on countries' HDI values and ranks are highlighted.

Data sources and revisions

The indicators used to calculate the HDI are provided by the international agencies with expertise and mandate in each of the component areas: the United Nations Population Division for life expectancy estimates; the

United Nations Educational, Scientific and Cultural Organization (UNESCO) Institute for Statistics for literacy and enrolment rates; and the World Bank for data on GDP per capita. Reliance on these sources ensures that the underlying indicators of the composite indices are in accordance with internationally agreed definitions and standards and thus are, as far as possible, comparable across countries.

While there are often data revisions for selected countries in one or more of these series, major revisions of whole series occur less frequently. This year, however, there are substan-

While existing measures of human development are not perfect, the development of new and unambiguously better measures is not a straightforward task. Any useful measure needs to be understandable and easy to describe, flexible enough to serve different purposes and contexts, and technically robust. Such measures should be operationally viable—in the sense that the relevant data must be reliable and widely available—and thus easily replicable (Székely 2005).

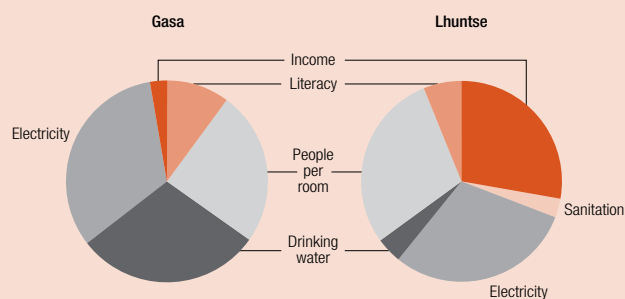
Efforts are underway to develop measures that, unlike the HDI, take account of distributional differences and are not limited to just three dimensions. One set of measures under development looks at deprivations rather than achievements in human development by identifying how deprived each person or household is in different dimensions of their lives, and who is multidimensionally poor. This information is then aggregated into measures that reflect the range, depth and distribution of deprivations. Such measures can be broken down by region, ethnicity or other factors to see which groups are relatively more deprived. One can then count how many dimensions in which a person or household is deprived and set a second poverty line in terms of the number (or weighted sum) of dimensions in which a person must be deprived in order to be considered multidimensionally poor (Alkire and Foster 2008).

Studies are underway in Bhutan, China, India, Pakistan, 14 countries in sub-Saharan Africa and six countries in Latin America. Preliminary results show that over time multidimensional measures of well-being improved more slowly than consumption poverty in China but they were also less volatile.

In Bhutan multidimensional poverty was measured using an index that included income, literacy, housing, drinking water, sanitation and electricity data from the 2007 Bhutan Living Standards

Survey (National Statistics Bureau of Bhutan 2007). The results were broken down to see what drove results in different regions or groups. Interestingly, district rankings were different for income and multidimensional poverty. The relatively wealthy district of Gasa fell 11 places when ranked by multidimensional poverty rather than income; however the district of Lhuntse, which was ranked 17/20 by income, rose nine places when ranked by multidimensional poverty. Looking behind these aggregate outcomes, in Gasa, poverty is driven by a lack of electricity, drinking water and overcrowding, whereas income is hardly visible as a cause of poverty. In Lhuntse, income is a much larger contributor to poverty than other dimensions, hence its rise. This is very useful to help inform priorities for policies and programmes.

Deprivation in selected well-being dimensions in two Bhutanese districts



Source: Alkire and Foster 2008; National Statistics Bureau for Bhutan 2007.

Source: Alkire and Foster 2008; National Statistics Bureau for Bhutan 2007; Székely 2005.

tial revisions to the GDP per capita series as a result of new data on relative price levels or purchasing power parities (PPPs). PPPs are the estimated exchange rates that are used to equalize the purchasing powers of different currencies by eliminating the differences in domestic price levels. That is, they take account of the fact that a dollar in London buys less than the same dollar in, for example, New York, and a dollar in Addis Ababa buys less than a dollar in Nairobi. Use of PPPs is preferred to market exchange rates, which tend to overestimate the cost of non-traded goods and services in poor countries, such as housing, personal services, education and health services, making some countries appear poorer than they are. Use of PPPs is gen-

erally regarded as the fairest and most comparable way to adjust the levels of national income between countries. They enable one to measure the relative social and economic well-being of countries, and monitor the incidence of poverty against internationally agreed thresholds, like 'a dollar a day' and the MDGs.

The calculation of PPPs is a huge undertaking and requires the collection of a vast range of price data from countries. It involves significant coordination, as stakeholders in different countries need to agree on definitions of a very large number of standard products across countries before data on the local prices of these products can be collected by national statistical offices. The International Comparison Program (ICP)

was established for the purpose of undertaking this exercise and has just published the results of its most recent survey, conducted in 2005 (World Bank 2007, 2008a, 2008b).

The ICP is the world's largest statistical initiative. It produces internationally comparable price levels, economic aggregates in real terms and PPP estimates. Established in 1968, the ICP has grown to cover all regions of the world. The Organisation for Economic Co-operation and Development (OECD) and the European Union have spearheaded the programme in their member countries, while the World Bank coordinates activities for the rest of the world. The ICP involves many players from national, regional and international agencies and is overseen by its global office housed in the World Bank. National statistical offices implement the programme on the ground, under the general guidance and coordination of regional agencies, including the United Nations Regional Commissions.

The HDI depends on PPP estimates, which have been improving over time, but which are still subject to some shortcomings (see box 4).

Recently published results from the ICP (World Bank 2007, 2008a, 2008b) update the previous round in 1993. This latest round of the ICP, which involved five regions and 146 economies covering more than 95 percent of the world's population, was the most extensive and thorough effort ever undertaken to measure PPPs. It used improved methods to specify the kinds and quality of goods for which prices were collected, as well as a consistent and more rigorous approach to link regional results to the global comparison.

The new PPP estimates reflect major revisions in price levels for some countries and regions. These changes arise for several reasons:

- First, some countries—especially in Africa and Asia (including China, the world's most populous country)—have taken part in the ICP for the very first time.
- Second, it has been a long time since the last full round of the ICP. The World Bank has published updated figures in the intervening years using an extrapolation method that adjusted for differences in the rate of infla-

tion; this was reasonable in the short term but failed to capture sufficiently the varying patterns of changes in relative prices, consumption and production.

In addition to the GDP per capita series, the UNESCO Institute for Statistics has revised its GERs as a result of incorporating the latest population estimates from the United Nations Population Division's 2006 revision of *World Population Prospects 1950–2050* (UN 2007). However, for most countries this has had less of an impact than the PPP revisions.

The life expectancy and literacy series also reflect some updates. The adult literacy rates from the UNESCO Institute for Statistics generally reflect recent improvements in data availability, demonstrating rising adult literacy levels in most cases.

Effects of data revisions on HDI values and ranks

A comparison of the changes in each component of the HDI between last year's report and this one is included in *Technical note 2* (see table A1 for further details).

The revised GDP per capita series has had a major impact on the HDI. It is important to note that the changes in values and ranks between last year's report and this one are not only a result of real changes in human development achievements but also an effect of the data revision. In order to judge progress in human development using the HDI it is necessary to refer to the HDI trends, which have been calculated using revised time series of data that are consistent over time (see Indicator table 1 for further details).

For 70 countries, per capita incomes have been revised *downwards* by at least 5 percent. Many are in sub-Saharan Africa, including seven of the eight countries where the reduction exceeds 50 percent (Burundi, Cape Verde, the Democratic Republic of the Congo, Eritrea, Ghana, Guinea, Lesotho and Tonga in East Asia and the Pacific). Such massive revisions clearly affect a country's HDI value but also, in many cases, its rank. A halving of GDP per capita reduces the value of the HDI by 0.039,

The 2005 round of the ICP is generally regarded as the most thorough and best-conducted round of the survey. It was organized on a regional basis with support provided to each region by regional commissions of the UN, regional development banks and selected OECD and EU Member States with the experience and expertise derived from participating in similar exercises on a regular basis. The overall process was managed from a global office hosted by the World Bank.

More countries than ever before took part in the survey: a total of 146, which was 28 more than the previous survey.

Participating governments were involved in both the selection and definition of the regional basket of goods and services—which consisted of 155 categories derived from national accounts—to be priced in order to ensure as much regional relevance and consistency as possible. Price data were collected each quarter for a year which allowed not only for the calculation of national average prices but also for adjustments to be made in data collection and validation processes where problems were identified in the first quarter's reporting.

Regions were then 'linked' to each other in a so-called 'ring comparison' in which several countries in each region agreed not only to collect prices on the contents of the regional basket of goods and services, but also on an international basket. This approach—despite being more costly and complex—was preferred to previous approaches of using a single 'bridge country' to link one region with another. Only one region—the Commonwealth of Independent States (CIS)—used the bridge approach with the Russian Federation acting in this role.

Despite these improvements, it is important to recognize the drawbacks and concerns associated with the ICP and bear in mind that there may be errors in the calculation of GDP, as well as PPPs:

- Like all statistical estimates, GDPs are subject to a margin of error. In particular, the accuracy of the GDP estimates remains conditional upon the reliability of the underlying national accounts.
- Similarly, the statistical measurement issues that affect the quality of underlying data sources—for example, the measurement of the value of non-market services—also affect the accuracy of PPP estimates. Heston and Summers (1996) identified four pitfalls with the ICP that form the basis for the PPP calculations. First, they argue that errors in national accounts

procedures are carried over to the PPP estimates. For example, some informal sector activities may not be captured in GDP computation. This distorts the level of GDP for these economies. Second, heterogeneity across countries poses difficulty in matching goods adequately. Third, there is difficulty with choice of aggregation method for combining national accounts and price data due to different preferences around the world. Finally, the PPP estimates are not appropriate for making certain comparisons because they relate to only the expenditure side of the national accounts.

- PPPs are designed to capture the overall price levels of an economy, but may not capture the expenditure patterns of the poor, nor differences in prices within a country. Prices are typically higher in urban than rural areas and, even in rural areas, the poor may pay different prices to everyone else. Also, reporting periods vary significantly from survey to survey, and this has been shown to systematically affect what people report. Some researchers have argued that care needs to be taken when using PPPs for some types of poverty analyses and have made attempts to calculate PPPs specifically for the poor. (See, for example, Deaton 2004 and 2006).

More specifically, with respect to the current ICP methodology, a couple of points are worth highlighting:

- Regional coverage remains incomplete. Although more countries than ever before took part in the 2005 round, not a single country from Central America or the Caribbean took part and only one—Fiji—participated from the Pacific. GDP per capita in PPP terms has been estimated by the World Bank for many of the non-participating economies using a similar method to previous rounds based on gross national income per capita and the secondary school GER.
- Urban bias. Particularly in large diverse countries, but also elsewhere, data collection was concentrated in urban and metropolitan areas. This is often done for very practical reasons. Not only is it cheaper and easier to collect the data, in many countries certain commodities are only available in urban communities and thus urban prices are arguably representative of national prices. Overall, however, prices levels are typically higher in urban areas—thus the effect of concentrating data collection in urban areas is likely to be an over-estimate of prices and ultimately an under-estimate of the PPP exchange rates and the resulting per capita incomes.

Source: Deaton 2004, 2006; Heston and Summers 1996.

although the change in rank depends on the relative movements of countries in the same HDI neighbourhood. Thus, among these 70 countries, the number of places by which the HDI ranking changed due to the GDP revision ranges from a rise of three or four places

(Burkina Faso (+3), Madagascar (+4), the Niger (+3) and Senegal (+4)) to a drop of 10 or more places: Tonga (−25), China and Samoa (−14), Cape Verde (−13), the Dominican Republic and the Philippines (−11) and Lesotho and Mauritius (−10). The fact that the country ex-

periencing the greatest fall in rank (Tonga) as a consequence of the revision in GDP per capita data is not the one with the greatest drop in HDI value (the Democratic Republic of the Congo) underlines the importance of changes occurring to other countries in the same HDI vicinity.

It is notable that several rapidly expanding economies were among the countries with reduced GDP per capita, as measured in PPP terms. China and India have each experienced downward revisions of more than 30 percent, lowering their HDI values by around 0.025. The resulting effect on their respective ranks is, however, very different: India drops 2 places but China falls 14 places, again reflecting the relative movements of countries with similar HDI levels.

There are approximately 60 countries for which the GDP per capita has been revised *upwards* by 5 percent or more. In four cases—the Congo, Equatorial Guinea, Gabon and Yemen—measured per capita GDP in PPP terms has more than doubled. Many oil-producing countries have experienced substantial upward revisions: 30 percent or more in all of the Gulf States, Angola, Nigeria and the Bolivarian Republic of Venezuela.

Member States of the European Union and OECD have also experienced revisions, mostly in the range -4 to $+12$ percent. The largest changes are for Greece and Turkey, with upward revisions of about 30 percent. Some of these revisions are a consequence of revisions to the underlying estimates of total GDP rather than in relative price levels.

3 HDI 2006 results and trends

In this section we review overall trends in HDI components, as well as the disparities among countries. We also draw attention to the value added by the HDI in revealing differences among rankings based on income alone versus those based on the broader human development approach.

This year's HDI, which uses 2006 data, has been calculated for 179 countries or territories. Three additional countries have been included in the set: Liberia, which has been absent for several years, and Montenegro and Serbia, which are included for the first time since they became independent states in June 2006. One country—Zimbabwe—has been dropped temporarily because of doubts about the latest available GDP estimates.

Trends in human development since 1980

In the last quarter of a century, many countries have made remarkable advances in their human development. The good news is that there have been improvements in both education and

health for many countries. All 80 countries for which data are available for both 1980 and 2006 have registered progress in education. For most, this has been fairly steady over time, although there is a notable handful of countries which have seen setbacks during the period. There are five countries (out of 110 with data) for which education attainment levels are no better than they were in 1990: Armenia, the Maldives, the Russian Federation, Tajikistan, and Trinidad and Tobago.

The picture for health is rather worse. There are around 30 countries (out of 180 with data) for which life expectancies are no better today than they were in 1990. Most of these are in sub-Saharan Africa, but many transition countries in Eastern and Central Europe are also in this group, as well as Jamaica and Trinidad and Tobago in the Caribbean.

Looking at progress at the country level, there are some interesting stories. China and Egypt have both raised their HDI values by more than 0.230 since 1980 but also present some contrasts. In China's case, its strong economic progress largely explains the increase; it

has made very good progress in education as well, but relatively less progress in health. By contrast, Egypt has taken the greatest strides in the areas of education and health, alongside relatively more modest economic progress. China's GDP per capita (measured in PPP terms) has almost 'caught up' with Egypt's, while it has always had higher achievements than Egypt in the areas of health and especially education (though the gaps have narrowed substantially). Box 5 provides further details about China.

Other countries for which trend data are available that have seen very strong progress in human development since 1980 include Indonesia, the Islamic Republic of Iran, the Libyan Arab Jamahiriya and Nepal—all increasing their HDI values fairly steadily by more than 0.200.

There is a larger group of countries where HDI values have risen by at least 0.150 since the early 1980s: Bangladesh, India and Pakistan in South Asia; Bolivia, El Salvador and Guatemala in Latin America; Morocco, Tunisia and the United Arab Emirates in the Arab States; Malaysia and Viet Nam in East Asia; and Turkey. Economic progress was relatively modest in most of these countries.

It is important to underline that there are several countries in southern Africa where major reversals in human development are still occurring, largely as a result of HIV/AIDS. Over the years, other countries have also experienced setbacks—in particular as a result of conflict or internal strife or severe economic changes—but these have usually recovered once a period of stability has been established and maintained. Examples include Burundi and Rwanda in

Box 5

Sustained economic growth, poverty reduction and human development: the case of China

Since the 1980s, China has registered impressive economic growth that has helped the country to lift hundreds of millions of people out of poverty. The challenge is how to translate this growth into improvement in all aspects of human well-being for all of China's people.

Using the HDI as a yardstick, China has also managed to improve basic dimensions of human development, at least at the national level. The HDI value increased from 0.529 in 1980 to 0.762 in 2006, using the latest and most consistent data series available. This was brought about by improvements in adult literacy and school enrolment, life expectancy at birth and increased per capita incomes. However, these national averages hide increasing inequalities associated with a development strategy that focussed on maximizing growth. As noted by Wan (2008), measured inequalities rose in both urban and rural areas. For example, in 2003, urban per capita income was more than three times that for rural areas, up from two times in the 1980s. The richest quintile in rural areas had average incomes 6.9 times those of the poorest quintile (Ramstetter et al. 2006).

Analysing survey data covering 1980 to 2001, Ravallion and Chen (2004) found that reductions in poverty had been dramatic, but also very uneven. The bulk of the reduction in poverty occurred in rural areas, where just under 60 percent of the population lives. Not surprisingly, given the focus of policies and patterns of population growth, the rate of poverty reduction was much faster in coastal provinces (averaging 17 percent annually) than in inland areas (an average of 8 percent per year).

Source: Chen and Ravallion 2008; Ramstetter et al. 2006; Ravallion and Chen 2008; UNDP 2005; Wan 2008.

China participated for the first time during the 2005 round of the ICP (see section 2 and box 4). The price survey was conducted in 11 metropolitan areas (and their surrounding rural communities) and the estimates were re-weighted with the aim of ensuring national representativeness. However, there is some evidence of urban bias in the price estimates. According to collaborative work done by Chen and Ravallion and China's National Bureau of Statistics (Chen and Ravallion 2008), the cost of living for the urban poor was 37 per cent higher than for the rural poor in 2005.

Chen and Ravallion (2008) have re-estimated poverty in China using the international poverty line and correcting for the urban bias in the ICP data. Using a poverty line of 1.25 PPP US\$ per day in 2005 prices, they conclude that the poverty rate declined from 84 percent in 1981 to less than 16 percent in 2005. This implies that 635 million people were lifted out of poverty—more than previous estimates—but the total number in China still living in poverty in 2005 is also higher than previous estimates, at around 204 million.

The Government of China has recognized the need to address inequalities and has put in place a number of policies and programmes to do this, including a guaranteed basic living wage for urban poor families. The government has also revised policies and practices concerning rural migrant workers and introduced a focus on developing the western provinces. China's 2005 national HDR, which focuses on inequalities, analysed these challenges and among other things, recommends fiscal reforms to promote a more equitable distribution of the national pie.

Africa as well as several countries in Eastern and Central Europe, including Armenia, Belarus, Estonia, Hungary, Kazakhstan, Latvia and Lithuania.

In southern Africa the HIV/AIDS epidemic is affecting not only life expectancy, but also education and economic growth. HDI values began to decline in the mid 1990s in this group of countries, they are still falling in both South Africa and Swaziland and have barely turned the corner in Lesotho and Namibia (figure 1). There are signs of recovery in Botswana and Zambia, although the HDI value is still well below earlier levels. The drop in HDI values for these countries is almost entirely explained by the sharp decline in life expectancy.

In contrast to countries that are still experiencing reversals, a number of countries are in the process of recovering from such reversals. These countries fall into two broad groups:

- Post-conflict countries in sub-Saharan Africa (for example, the Central African Republic, Côte d'Ivoire and Liberia)
- Transition countries in the CIS, in particular, Moldova, the Russian Federation and Tajikistan, which faced extensive restructuring and subsequent contraction of their economies in the early 1990s.

There are other countries that have faced similar setbacks for which sufficient data are simply not available. Candidates include Sierra Leone, Somalia and Zimbabwe, which are unlikely to be more advanced in human development terms than they were before 1990.

Disparities in human development across countries

The very large human development divide between countries, which has characterized the HDI since the outset, persists (figure 2). These gaps are by now well-known, but it is useful to recall the most egregious disparities. For example:

- A child born in the top 20 countries can expect to live to at least 80 years, but if she or he happens to be born in one of the bottom 20 countries, on average life expectancy is

Figure 1 Human development reversals in southern Africa

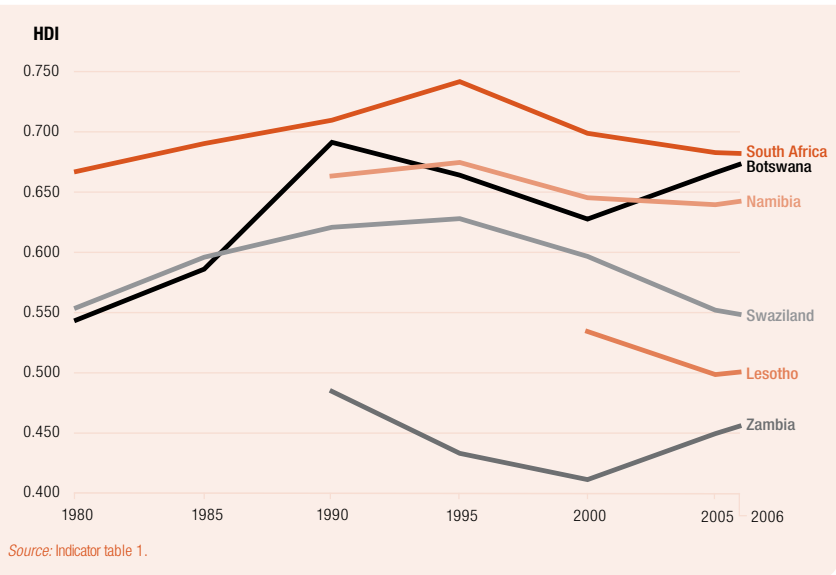
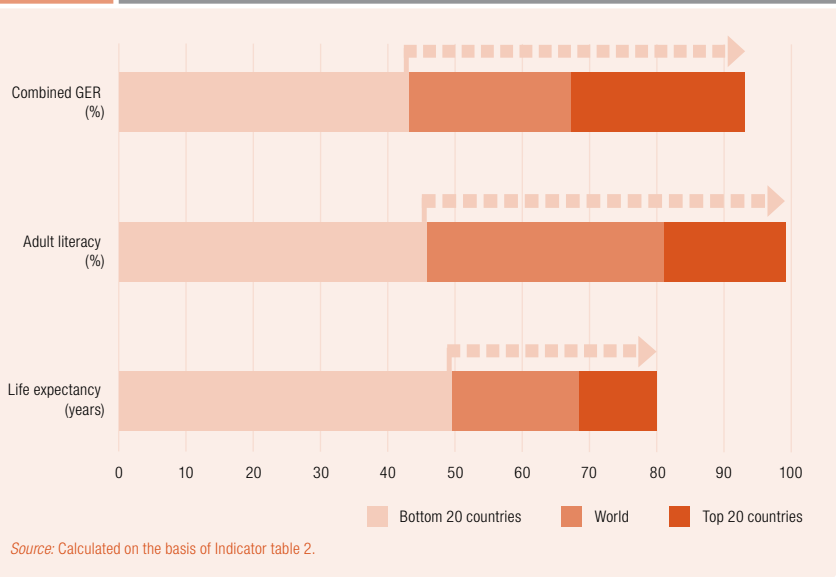


Figure 2 Unequal human development outcomes



only 49 years. In countries with the highest life expectancies a child born today can expect to live twice as long as a child born in Swaziland or Zambia, the countries at the bottom of the world's life expectancy ranking.

- In countries at the top end of the HDI ranking, virtually all adults can read and write, but in some countries close to the bottom more than two in three adults are illiterate. Adult literacy levels among the top 20

countries are, on average, double those in the bottom 20 (99 versus 46 percent) and enrolment ratios are, on average, more than double (93 versus 43 percent).

For three country groupings the average HDI values exceed 0.800: OECD (including high-income OECD countries); Central and Eastern Europe and the CIS; and Latin America and the Caribbean, although not all countries in these groups are in the high human development category. At the other extreme, sub-Saharan Africa has an average HDI below 0.500.

Differences in achievements across the spectrum of human development

Achievements in human development are correlated with—and, by construction, partly reflect—levels of income per capita. All countries in the low human development category are poor: among the bottom ten countries, only Burkina Faso and Chad have GDPs per capita above 1,000 PPP US\$. Only Angola, among the 26 countries in the low human development category, has a GDP per capita in excess of 2,000 PPP US\$. At the other end of the scale, the top 15 countries all have GDPs per capita above 30,000 PPP US\$, and the top 36 countries have GDPs per capita in excess of 20,000 PPP US\$.

There are some important features that are worth noting:

- Around 100 countries—more than half those in the HDI sample—have relatively higher levels of achievement in education and health than in per capita incomes.
- Average life expectancy at birth in the 26 countries in the low human development category (48 years) is much lower than that stated for the category defined as low income by the World Bank (over 60 years).
- Three countries—Kyrgyzstan, Sao Tome and Principe, and Tajikistan—have educational attainment levels commensurate with countries in the high human development category (with literacy and enrolment rates over 80 percent, on average) despite having very low GDPs per capita (below 2,000 PPP US\$). The same countries also have rel-

atively high life expectancies, in the range 65–70 years.

- A further nine countries with GDPs per capita below 2,000 PPP US\$ have good levels of achievement in either health or education. Bangladesh, the Comoros, the Lao People's Democratic Republic, Mauritania, Nepal and the Solomon Islands all have moderately high life expectancies at birth—exceeding 63 years—while Cambodia, Lesotho and Myanmar have moderately high levels of achievement in education, with literacy and enrolment rates averaging over 70 percent.
- Among the 18 countries that have managed to raise their HDI values the most rapidly since 1980, there are only two cases, China and Viet Nam, where economic growth has been greater than human development as a whole in the last quarter century. In the latter case, improvements in life expectancy had a far greater impact on the HDI than GDP per capita growth. For most of the other countries in this group it was substantial improvements in both health and education that led to the large increases in HDI values.

There are also several success stories among countries with moderately low incomes per capita (in the range 2,000–3,000 PPP US\$). Cape Verde, Guyana, Moldova, Mongolia, Nicaragua, Uzbekistan and Viet Nam all show relatively high performance in both education and health status. Of these, Viet Nam's life expectancy of 74 years and literacy and enrolment rates above 80 percent on average are in the same ranges as countries in the high human development category. This underlines that much progress can be achieved even at relatively low levels of national income. The other six countries have life expectancies in excess of 65 years (above 70 years in the case of Cape Verde and Nicaragua) and educational attainment levels of at least 75 percent on average (and at or above 90 percent in Guyana, Moldova and Mongolia). Two other countries—India and Pakistan—also still with moderately low GDPs per capita (despite recent economic growth in India), have life expectancies at birth in excess of 63 years which are close to the highest levels.

4 Measuring inequalities in income and gender

Why inequalities matter for human development

In the last decade or so, many countries, notably Brazil, China, India and others, have registered impressive economic growth and have reached levels of GDP per capita that place them in the middle income category. Nonetheless, the gap between the rich and poor is widening within many countries and so are the human development achievements among different socio-economic groups.

At the heart of the human development concept is equality of opportunities for all groups in society: rich and poor alike. The reality is that in many societies inequalities are widespread. For instance, a country like Cambodia is marked by severe disparities: in 2005, the poorest quintile of the population accounted for 7 percent of total income, compared to 50 percent for the richest 20 percent. This reflects and also reinforces wider inequalities in human capabilities across many dimensions, as measured by the proportion of births attended by trained health personnel, the survival of infants and children and their nutritional status, for the poorest and richest 20 percent of Cambodia's population (see table 1). As noted above, the HDI, as an aggregate index, masks these disparities between rich and poor, and women and men, in terms of access to education, health and a decent standard of living. A country may perform well in the aggregate HDI even if its people experience large disparities in opportunities.

The global *Human Development Report 2006* (UNDP 2006a) made an important step to address this issue and, for a sample of 13 low- and middle-income and two high-income countries, presented separate HDI values for all five income quintiles. That is, the life expectancy, education and income indices were calculated to generate income quintile-specific HDI values (see Grimm et al. 2008). The results showed that inequality in human development was very high, was typically larger in develop-

ing countries and was particularly sizable for African countries in the sample. This was not only due to an unequal income distribution but also to substantial inequalities in education and life expectancy. However, the differentials were also noticeable in the two rich countries. For example, the poorest income quintile in the United States reached only position 43 in the general HDI country ranking, putting it below Lithuania and Slovakia.

This inequality analysis has been extended to cover around 30 countries, including 11 OECD member states (Grimm et al. 2007). The results underline the very stark differences in human development between the richest and the poorest quintiles within countries.

Africa is the region where disparities in human development are most serious. In contrast to comparisons in income inequality (where Latin America is the most unequal region), when we compare HDI values by income quintile, some African countries are more unequal. For example, in Brazil, Guatemala and Peru the ratio of the HDI between the richest and the poorest quintile is between 1.6 and 1.7, whereas it is around 1.9 in Burkina Faso and Madagascar and as much as 2.5 in Guinea. Most of the other African countries for which data are available have differentials between the richest and poorest quintiles around the levels of the three Latin American countries mentioned above (i.e., at 1.6 or higher). India also has very substantial inequality in human development achievements across income groups. The richest quintile in

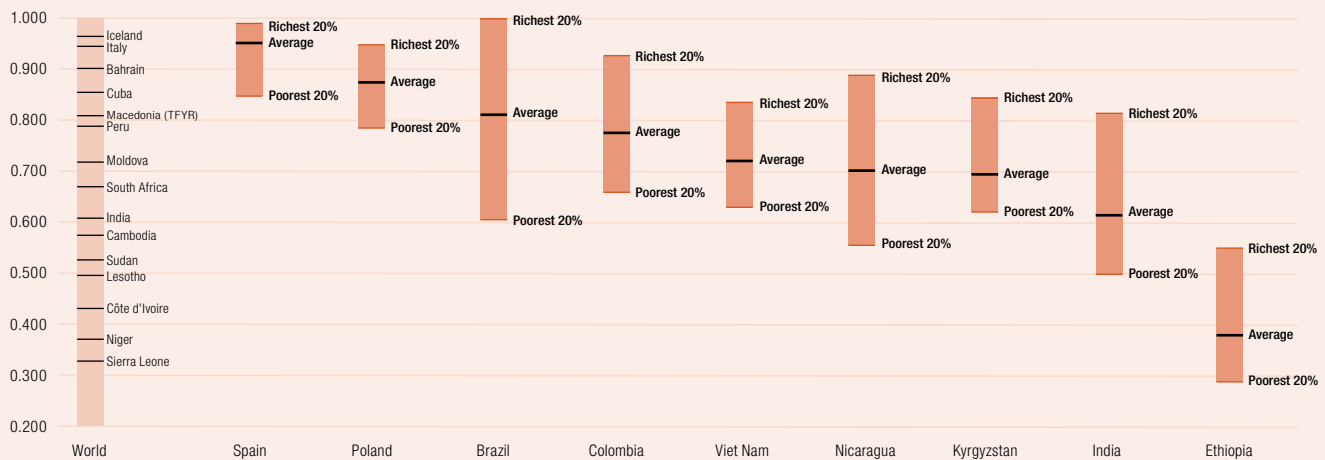
Table 1

Inequalities in maternal and child health and income in Cambodia, 2005

Indicator	Poorest 20%	Richest 20%
Births attended by skilled health personnel (%)	21	90
Infant mortality rate (per 1,000 live births)	101	34
Under-five mortality rate (per 1,000 live births)	127	43
Children under height for age (%)	47	19
Share of income (%) (2002)	7	50

Source: Indicator tables 8 and 15 in UNDP 2007a.

Figure 3 Same country, different worlds—a human development index by income group



a. Countries are ranked in order of their average HDI values.

Source: Grimm et al. 2007 and 2008.

India ranks among the high human development countries ahead of the former Yugoslav Republic of Macedonia, whereas the poorest quintile ranks among the low human development countries behind Lesotho (see Figure 3).

The differences within OECD countries for which data are available are more muted, with ratios between the top and bottom quintiles typically of the order of 1.1–1.2. Nevertheless, these differences would translate into differences of at least 30 places, and in some cases over 50 places, in HDI ranking between the richest and poorest population groups for most countries. For example, in Poland, which ranks 39th in this year’s HDI, there are wide differentials between rich and poor: while the richest quintile ranks 19th at the same level as Italy, the poorest quintile falls only at medium human development levels and ranks 79th putting it at the same level as Peru.

The Human Poverty Index (HPI-1)

This year, 27 more countries have been included in the HPI-1—twenty Central and Eastern Europe and CIS countries that are usually in HPI-2 plus Afghanistan, Bahrain, Iraq, Liberia, Libyan Arab Jamahiriya, Oman and Saudi Arabia. This has pushed some countries down the ladder even when their HPI values have not fallen relative to those reported in the

2007/2008 *Human Development Report* on climate change.

Trends in the HPI-1 values show that while a number of countries have made progress in the last 10–15 years, significant proportions of their populations do suffer some form of human deprivation. This is most marked in sub-Saharan Africa where—with the exception of Cape Verde, Comoros, Congo, Gabon, Mauritius and South Africa—more than a quarter of the population suffer one or more forms of human poverty.

Some countries in South Asia suffer similar deprivations. In Afghanistan, Bangladesh, Bhutan, Nepal and Pakistan, one in three persons suffers one or more forms of human deprivation. The same holds true for Haiti, Lao People’s Democratic Republic and Timor-Leste. There is relatively less human deprivation in Central and Eastern Europe and CIS countries.

It should be borne in mind that, unlike the income poverty headcount ratio, it is difficult to associate the HPI with a specific number of people. Anand and Sen (1997) point out that in a case where the HPI is say 30 per cent, this could be the same 30 per cent of people suffering deprivations in all the dimensions, it could also be a different 30 per cent on each dimension.

Typically, the HPI is a combination of subsets of people suffering deprivation in some

or all the dimensions measured in the index. Understanding what drives the observed HPI measure is crucial in order to prioritise public interventions. In Chad for example, more than 3 out of 4 adults are illiterate, a third are not likely to survive to age 40 and more than half do not have access to improved water. In Angola, Botswana, Guinea, Malawi and Swaziland nearly half of children born alive are not likely to survive to age 40, while more than a third of children under the age of 5 in these countries are malnourished.

Gender

“Women and men share many aspects of living together, collaborate with each other in complex and ubiquitous ways, and yet end up—often enough—with very different rewards and deprivations”

Anand and Sen (1995)

Tremendous progress has been achieved in bridging the gap between women and men, especially in access to education. Yet more than a decade after the fourth World Conference on Women held in Beijing, gender inequalities are still pervasive in many dimensions of life. This is in spite of 183 countries having signed and ratified the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) (UN 1979).

The nature and extent of gender discrimination vary considerably across countries and regions in terms of access to and control of resources, economic opportunities, decision-making powers and political voice. Violence is still perpetrated against women in North American and European cities, as well as in remote villages in poor countries. Sadly, many women have been socialized in such a way that they believe their spouse has the right to abuse them physically. Two out of three African women and more than one in two South Asian women believe that “a husband or partner is justified in hitting or beating his wife under certain circumstances” (UNICEF 2007).

While women and girls bear the most direct costs of gender inequalities, wider society

is ultimately affected. It is widely agreed that no nation can achieve sustainable human development if its female population is deprived of their basic rights. For example, gender discrimination in access to education will thwart policy goals to reduce fertility levels, curb infant mortality and expand education for the next generation. At the same time, gender inequalities can also negatively affect men. Because of the emphasis on women in response to long-standing discrimination against them, opportunities to address discrimination towards men and male vulnerabilities are often overlooked. For example, boys are increasingly becoming disadvantaged in the area of educational attainment in a number of countries, including some that rank high in the HDI.

The gender-related indices

The introduction in 1995 of the GDI and the GEM coincided with growing international recognition of the importance of monitoring progress in the elimination of gender gaps in all aspects of life, following the Beijing World Conference on Women in September 1995. A decade after their introduction, the Human Development Report Office undertook a critical review of the two indices. In this section we will describe current limitations of existing indices and outline some possible solutions, while emphasizing the need for further consideration of these issues in the run up to the 2010 report.

The Gender-related Development Index (GDI)

The GDI is not a true measure of gender inequality, though it is often misinterpreted as such. As noted by Klasen (2006), one cannot deduce the extent of gender gaps in a country from its GDI value, though comparing the GDI with the HDI reveals how gender gaps in the relevant dimensions lower the country’s overall human development achievement. For example, the HDI and GDI values for the Occupied Palestinian Territories for 2006 are 0.731 and 0.678, respectively, indicating a human development shortfall of 0.053, due to gender gaps in

the three dimensions. By contrast, in Viet Nam the HDI and GDI values are 0.718 and 0.717, respectively—a gap of just 0.001.

Like any synthetic index, the GDI is subject to inherent limitations, both conceptual and practical, some of which are highlighted here:

- The earned income component disaggregated by sex does not measure what it is intended to assess—that is, gender gaps in human development achievements conferred by incomes, such as nutrition, shelter and clothing (Klasen 2006). There is extensive evidence of intra household inequality. Decisions on individual consumption, for example, are influenced by gender power relations that are not captured in the income component of the GDI.
- Relying on earned income as a measure can also give the misleading impression that unpaid work, which is mainly undertaken by women, does not contribute to human development. Care of children and family members and other work in the household contribute immensely to human development. Likewise, subsistence farming, which is critical to the well-being of households in many poor countries, is often done by women but does not, by definition, generate cash earnings.
- Furthermore, there are practical data problems. The difficulty in accessing direct measures of income disaggregated by sex means that the index has to rely on the estimated female-to-male ratio of non-agricultural wages. However, earnings are not well measured in poorer countries and this ratio is unlikely to hold in all sectors; for example, the ratio may be lower in the subsistence agricultural sector.
- Two issues have been raised with regard to life expectancy at birth: first, whether women’s biological advantage in terms of longevity should be considered as a gender gap or normal, and second, whether the measure should consider the ‘potentially alive’ as a relevant population for determining the inequality aversion parameter—this would take into account missing girls due to sex-selective abortion or post-birth neglect.

- Finally, gender gaps are penalized in the same way, irrespective of the direction. Hence, the areas where women are disadvantaged are offset by those where they fare better. For example, in the Russian Federation, females on average live nearly 14 years longer than males, their combined GER is eight percentage points higher than males but female estimated earned income is only about 63 percent that of males. This makes the interpretation of the GDI very difficult.

The GDI has nonetheless contributed to global debates on gender inequalities and has sparked a search for more robust measures.

Towards an improved measure of gender inequality

Female and male HDI values

In order to address the first of these limitations, and in an attempt to measure gender inequalities in basic human development more directly, one option is separate HDI values for males and females, ranking countries on the basis of the ratio of female-to-male HDI values (Klasen and Schüler 2007).

The female and male HDI values can be calculated using the same component indicators as the HDI: life expectancy at birth, education and income for females and males. The inherent problem remains that income data disaggregated by sex are not readily available and must be estimated using the same methodology and assumptions as in the GDI, thereby being subject to the criticisms noted above. This notwithstanding, the female and male HDI values are arguably an improvement over the GDI in that they measure more directly—and more intuitively—gender inequalities in basic human development.

At the same time, important aspects of gender inequalities are neglected in the female and male HDI values. The fact that males have a far shorter lifespan in some transition countries should be a concern. For example, women live on average 11 years longer than males in Kazakhstan and 14 years longer in the Russian Federation; these are among the biggest gaps

between female and male life expectancy at birth worldwide and they reflect, to a large extent, lifestyle choices that expose males to life-threatening illness and early death. Clearly, this calls for specific interventions to address men's vulnerability to early death.

To avoid the problems associated with estimates of female and male earned income, there is a need for a measure that does not rely on income. One option is to replace estimated earned income with the labour force participation rate because the ability to participate in the labour force constitutes freedom to earn a living and enjoy a decent life. However, this is not free of measurement difficulties either: unpaid work in the family may not be formally recorded as participation in the labour force. Further, labour force participation does not necessarily mean either being employed or earning a decent wage: the unemployed are also part of the labour force and many of those who are employed may fall in the categories of low-paid or subsistence-level work. Nor does labour force participation account for the earnings gaps that may exist even where participation is high. Finally, women may choose not to work.

Another methodological change would be to take female-to-male ratios of achievements in the relevant indicators and use the geometric mean to construct an average (Klasen and Schüler 2007). In this sense, the measure is closer to being a direct measure of gender inequality. Conceptually, this measure is clearer than the GDI and also easy to interpret. Another advantage is that it does not treat as equal situations in which all gender gaps hurt women and situations where they hurt women in some dimension and men in others.

Under this method, the female-to-male ratio of achievement in one dimension can exceed unity—for example, due to female longevity. Furthermore, as with the female and male HDI values, it is possible for a disadvantage in one component to be compensated for by advantage in another.

Many sub-Saharan African countries would perform much better on this measure than they currently do on the GDI. This is mainly explained by the relatively high female labour

force participation rates, in spite of significant gender gaps in adult literacy rates and, in some cases, school enrolment. But as noted above, labour force participation does not necessarily imply either being employed or earning a decent wage. Further, gender gaps exist in other important areas in these countries, notably in decision-making power and access to and control over assets.

Other countries that would likely do much better include most CIS countries and also a number in Asia and the Pacific.

Further work

Neither of these proposed innovations addresses all of the conceptual drawbacks of the existing indices, nor all the data related hurdles that hamper gender-sensitive measurement. The rationale, therefore, is not to add these measures to the existing GDI but to stimulate discussion about which of these measures is close to determining gender inequalities in human development and could be used in the short term, while efforts towards the long-term development of a better measure continue.

A more general point, which is not captured in any of the existing or proposed measures, is that state parties to CEDAW need to intensify efforts towards eliminating gender discrimination. This involves, among other things, incorporating relevant CEDAW provisions into their national laws, putting in place appropriate budgets for their implementation and mechanisms for their enforcement, and taking note of the cultural norms and values under which such practices take place.

The Gender Empowerment Measure (GEM)

This year, the GEM has been calculated for 108 countries although the number of developing countries included in the measure is still very low. For example, only eight sub-Saharan African countries (up from 5 in the 2007/2008 global Report) have a GEM value this year. Under-representation of developing countries in the GEM is due to the absence of data for the economic and decision-making component—as measured by females' and males' percentage

shares of two occupational groups (legislators and senior managers and professional and technical workers).

The few developing countries included in the GEM league table trail the more developed ones, mainly because their income levels are low, not because they have relatively higher gender gaps. The earned income component of the GEM uses both income levels and female and male income shares in the calculation. However, income levels tend to dominate the index and as a result, countries with low income levels cannot achieve a high GEM score even where gender disparities in the distribution of earnings and other components of the GEM are minimal. For example, the past few decades have witnessed important achievements in the parliamentary representation of women across much of the world. Towards the end of 2008, Argentina, Costa Rica and Cuba had become among the top ten such countries, with women holding close to 40 percent of parliamentary seats. A number of sub-Saharan African countries have also improved female parliamentary representation in the last decade, including in particular Rwanda where women now hold a majority of the parliamentary seats. However, lower income levels mean that their GEM values remain low. A case in point is a comparison of the GEM values for Canada and Lesotho. The latter has higher female representation in parliament and in managerial and professional positions yet, its GEM value is only 0.589 against Canada's 0.829. Canada ranks 11th while Lesotho is in 53rd position. This anomaly calls for a review of the GEM methodology to better reflect women's empowerment in developing countries. Qatar and Saudi Arabia are

two countries with relatively high income levels but very low GEM values (0.380 and 0.297 respectively). This is because of the huge gender gaps in all the GEM components. There are no female members of parliament and fewer than 10 per cent of managerial positions are held by females in either country.

In order to address these limitations two modifications have been investigated (Klasen and Schüler 2007). The first uses the same basic indicators as the GEM but calculates the geometric mean of the female-to-male ratios of achievement in the components. This allows good achievements in one or more dimensions to compensate for shortfalls in other components.

Another option is to improve the income component by using female and male *shares* of earned income instead of income levels. This would allow countries with relatively low levels of gender inequality in the dimensions measured by the GEM to achieve a high rank despite low income. Further areas being explored are described in box 6.

This innovation would also allow the relatively strong performance in women's political and economic representation in some of the countries in sub-Saharan Africa to affect the rankings. Since 2000 the number of countries with more than 20 percent female parliamentary representation has increased sharply in almost all developing regions, from almost tripling in sub-Saharan Africa to a 10-fold increase in the CIS region (Tripp 2003) (see box 7).

This approach would avoid the outcomes whereby a high-income country can rank highly in the GEM, largely because of income and despite gender gaps.

“The ends and means of development call for placing the perspective of freedom at the center of the stage. The people have to be seen, in this perspective, as being actively involved—given the opportunity—in shaping their own destiny, and not just as passive recipients of the fruits of cunning development programs.”

Sen (1999, p.53)

Human development views people as active agents of their own destinies and supports the participation, agency, voice and empowerment of people and communities. In this way human development goes beyond the necessary focus on outcomes evinced, for example, in the MDGs, by including a concern for process.

One basic challenge, however, is determining how measures of human development can meaningfully reflect the degree of empowerment of all people, particularly of women and marginalized groups. Among the various difficulties faced is the trade-off between indicators that are of deep relevance locally and those that can be compared across countries.

Building on the work of Sen (1999), a number of studies have focused on the cross-comparability of empowerment measures (Alkire 2005, 2008; Alsop and Heinsohn 2005; Ibrahim and Alkire 2007; Narayan 2005). These have mainly been comprised of two sub-components:

- *Opportunities, or real possibilities* that are available to a person or a community; often measured using data on access to services, service provision, etc.
- *Agency, or a person’s ability to advance his or her valued goals.* The most widespread measures of agency are questions, usually asked of women, regarding household decision-making in dif-

ferent domains, such as control of the family finances. However, these questions only identify one source of disempowerment (the family). Community, economic and political institutions can also empower—or disempower—individuals.

Explorations are underway to enrich perspectives on empowerment (see Ibrahim and Alkire 2007). For example, one important issue is the extent to which people feel their fate is determined by themselves or by others, as well as how much control they have over personal decisions.

To measure the extent to which people feel themselves to be coerced, as opposed to acting on their own initiative and values, autonomy-measures from psychological testing have been used. These questions probe people’s motivation for their actions across a set of domains that might include, for example, employment, housework, educational decisions, responses to health crises, group participation, mobility, self-protection from violence, and cultural or religious practices. The objective is to determine whether the actions are motivated by lack of choice, by coercion, by a desire for approval or to avoid guilt, or by the person’s own values. One test of the indicators occurred in a survey in India covering 220 women in southern Kerala; it found, interestingly, that some respondents who were destitute in socio-economic terms nonetheless did indeed enjoy high autonomy, and vice versa.

Another set of vital questions explores the extent to which individuals feel empowered to bring about change *at both individual and community levels*. How do they assess their collective as well as their individual efficacy to bring about positive change?

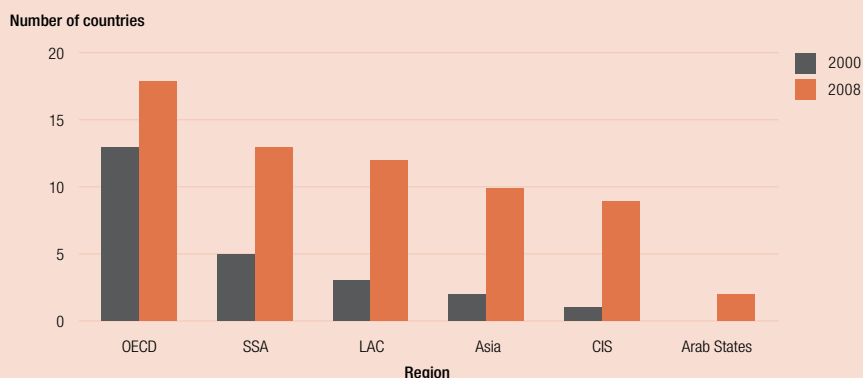
These are among the important questions that will be explored more deeply and extensively to inform the 2010 *Human Development Report*.

Source: Alkire 2005, 2008; Alsop and Heinsohn 2005; Alsop et al. 2006; Chirkov et al. 2003; Drèze and Sen 2002; Ibrahim and Alkire 2007; Narayan 2005; Ryan and Deci 2000; Sen 1999.

Some 13 sub-Saharan African nations now have female shares in parliament of more than 20 percent. Rwanda is a particular case in point, with 51 percent of seats in parliament held by women since the 2008 election that brought 45 women to parliament, the highest representation in the world (IPU 2008a). One factor associated with this trend has been the adoption of quotas that reserve a certain number of seats in parliament for women; Rwanda and the Niger have established quotas for women in their national parliaments of 30 and 10 percent, respectively (IIDEA 2008).

Source: IIDEA 2008; IPU 2008a.

Countries with more than 20% female parliamentary representation



Source: IPU 2008a.

5 Conclusions

This brief overview of the state of human development has sought to underline key trends over the longer term and elaborate on the picture revealed by the most recent snapshot available. We have also introduced some important data updates and reviewed some methodological issues.

As is well known, at the country level there have been steady improvements in human development across the world in the last 25 years. These have been most marked in education, while some countries have made huge strides across multiple dimensions of human development. Yet there is a range of countries, mainly in Africa and the CIS, which have suffered human development reversals from which they have yet to recover.

The very wide gaps between countries, between rich and poor within countries, and between men and women are all major concerns. High levels of human poverty in many developing countries also require priority actions.

On the gender front, various measures can be used to capture some of the dimensions of the disadvantages faced by women. Yet measurement is fraught with conceptual and practical difficulties, and ongoing work on gender inequality and women's empowerment measures by academia and women activists is critical to inform the debates and to contribute to the development of better measures. Improvements in measurement and monitoring are part of the story—to see whether state parties to CEDAW are meeting their commitments on the ground.

All of the issues covered in this overview remain very much alive today. We hope that this report will help to inform and stimulate ongoing debates. These investigations and debates will be further pursued in the context of preparing for the jubilee edition of the *Human Development Report* in 2010.