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United Nations Development Programme



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FAQ Human Development Index

How many countries are included in the 2013 HDI?

The 2013 HDI covers 187 countries, the same number as in 2012 and 2011. Maintaining the same number of is the result of intensified efforts by the Human Development Report Office (HDRO) to work with international data providers and national statistical agencies to obtain required development indicators for the HDI which had been unavailable for some countries in previous years. *For a full explanation of the results and methodology of the 2013HDI and other indexes in the 2014 Human Development Report, please see the Technical Notes 1-5.*

What does the HDI tell us?

The HDI was created to emphasize that people and their capabilities should be the ultimate criteria for assessing the development of a country, not economic growth alone. The HDI can also be used to question national policy choices, asking how two countries with the same level of GNI per capita can end up with different human development outcomes. For example, Malaysia has GNI per capita higher than Chile but life expectancy at birth is about 5 years shorter, mean years of schooling is shorter and expected years of schooling is 2.5 years shorter resulting in Chile having a much higher HDI value than the Malaysia. These striking contrasts can stimulate debate about government policy priorities.

Did the HDI rankings change for many countries in 2013?

Based on the consistent data series that were available on 15 November 2013, there are few countries with changed ranks between 2012 and 2013. The HDI values for 2012 and 2013 are given in Table 1 of Statistical Annex. The HDI trends since 1980 are given in Table 2. In this table we also provide the change in ranks between 2008 and 2013.

We advise users of the HDR not to compare the results from different Reports, but to use the consistent data given in Table 2 of the latest report. The consistent data are based on the latest data revisions and are obtained using the same methodology. The effect of change in achievements (improvement or declining) in human development indicators of health, education and living standards is captured by comparing the HDIs obtained from the consistent data series.

The difference between values published in two different Reports is the combined effect of data revision, change in methodology, and the change in achievements in indicators.

Were there any significant revisions of the component indicators for 2013?

Two major data revisions were made in 2013 and 2014. The first one relates to the population data (UN Population Division - World population prospect, Revision 2012) and it has affected all indicators expressed per capita, as well as life expectancy (LE). The other revision is related to the new purchasing power parity (PPP) conversion rates based on 2011 International Comparison Program surveys. The World Bank published the new series of GDP and GNI expressed in new PPP terms on May 7th and we included it in our computations. In addition, GDP and GNI series have been rebased to 2011 (from the previously used 2005). Both revisions have impact on HDI values and ranking, especially among the middle-income countries which were affected non-uniformly - some got LE revised upwards some downwards, the same happened to GNI per capita, although on average worldwide - GNI pc was revised upwards for about 33%.

Were there any significant revisions of the methodology for computation of the HDI?

The modifications in methodology include the change in maxima for normalization of dimensional indices – previously they were equal to the observed maxima over the period since 1980, now they are fixed at 85 for life expectancy (LE), 15 years for mean years of schooling (MYS), 18 years for expected years of schooling (EYS), and \$75,000 for GNI per capita (GNI pc). The previously used approach of 'observed maxima' was criticized mainly on the grounds that the HDI of the country should depend only on the country's own achievements, however when using the observed maxima the HDI also depended on other countries, on those whose values were used as maxima. For example the HDI of Brazil also depended on how long Japanese live, how well American adults were educated, and how high is GNI per capita in Qatar.

The other change is in the way the education indicators are aggregated. Previously used geometric aggregation was criticized on the grounds that a typical developing country has a (much) higher value of expected years of schooling than of mean years of schooling. By aggregating these two indicators with the geometric mean such a country is 'penalized' because of the difference, although the country is improving education level by having more children attending school at all levels. The use of the arithmetic mean provides an equal treatment to both indicators. These changes <u>have a minimal impact</u> on values and ranks.

Are the ties in the HDI ranking kept this year?

Although the HDI is calculated with the larger number of decimals we report only three. Often there are ties in the HDI values which is also reflected in ties in the ranks. The HDI values, by the very nature of the estimated components, are not significant beyond three

In the previous Human Development Reports, countries were divided by the quartiles of the HDI distribution into four groups of equal sizes, from "Very High" to "Low" human development groups. This year you are using the fixed cut-off points to define the groups. Why did you introduce this this change?

There are two major reasons why we went back to fixed cut-off points between groups – first is that with the quartile grouping countries couldn't see clearly their progress to a higher level of human development because the quartiles of the HDI distribution change values every year and second, the number of countries is always the same in each quartile group. So if a country moves up into a higher level group, another country has to move down into a lower group.

The 2014 HDI introduces a system of fixed cut-off values for the four categories of human development achievements. The cut-off values are obtained as the HDI values calculated using the quartiles of the distributions of component indicators. For more details see Technical note 1. These cut-off points (0.55, 0.7, 0.8) will be kept for at least five years and then will be revised.

Where do data for HDI computation come from?

Life expectancy at birth is provided by the UN Department of Economic and Social Affairs – the UN Population Division; mean years of schooling are based on UNESCO Institute for Statistics (UIS) educational attainment data and Barro and Lee (2013) methodology; expected years of schooling are provided by UIS; and GNI per capita in 2011 PPP by the World Bank and the International Monetary Fund. For a few countries, mean years of schooling is estimated from nationally representative household surveys and for a few countries GNI was obtained from the UN Statistical Division's database with the SNA Main Aggregates.

Are there discrepancies between national and international data used for calculation of the HDI and other human development indices?

Data gaps between national and international values of indicators still exist for some countries. HDRO actively advocates for the improvement of quality of human development data at all levels – national and international and for an efficient communication and collaboration between national statistical authorities and the UN statistical entities. The Human Development Report Office does not collect data directly from countries.

Why is it important to express per capita GNI in Purchasing Power Parity (PPP) international dollars?

The HDI attempts to make an assessment of 187 diverse countries and areas, with very different price levels. To compare economic statistics across countries, the data must first be converted into a common currency. Unlike market exchange rates, PPP rates of exchange allow this conversion to take account of price differences between countries. In that way GNI per capita (PPP \$) better reflects people's living standards. In theory, 1 PPP

dollar (or international dollar) has the same purchasing power in the domestic economy of a country as US\$1 has in the US economy.

The new PPP values have been introduced in May 2014. The latest International Comparison Program (ICP) Surveys from which the PPPs were calculated, was done in 2011. It covered 199 economies from all geographical regions and from the OECD. The 2014 Human Development Report is using the GNI per capita expressed in constant 2011 PPP international dollars. The new PPP conversion rates and a new base year – 2011 brought changes in values of GNI as well as in ranking of countries, in particular among the middle income countries. At the global level the GNI pc for 2011 when expressed in constant 2011 PPP international dollars is 33 percent higher than when expressed in constant 2005 PPP\$, but countries were affected differentially.

What is an "imputed" indicator – and for which countries were these imputed statistics used?

When one indicator is missing, the HDRO estimates the missing value using an alternative source or a cross-country regression model. The estimated values along with the method and/or model used are first communicated to the affected country before using it for the computation of the HDI. Mean years of schooling (MYS) for Andorra and Liechtenstein was based on the MYS of neighbouring countries Spain and Switzerland, respectively. For 16 countries, the MYS was estimated from nationally representative household surveys— UNICEF's Multiple Indicator Cluster Surveys (MICS), Demographic and Health Surveys (DHS), and the World Bank's International Income Distribution Database. For 13 countries—Antigua and Barbuda, Cape Verde, Dominica, Equatorial Guinea, Eritrea, Grenada, Kiribati, Madagascar, Palau, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, and Solomon Islands —mean years of schooling was estimated by a cross-country regression model. Expected years of schooling was estimated by cross-country regression for nine countries—Cote d'Ivoire, Haiti, Liberia, Micronesia (Federated States of), Papua New Guinea, Sierra Leone, South Africa, Sudan, and Turkmenistan.

Can GNI per capita be used to measure human development instead of the HDI?

No. GNI per capita only reflects average national income. It tells nothing of how that income is spent, whether on universal health, education or military expenditure. Comparing rankings on GNI per capita and the HDI can reveal much about the results of national policy choices. For example, a country with a very high GNI per capita, such as Kuwait which has a relatively low mean years of schooling for its adult population, can have a lower HDI rank than, say, Czech Republic, which has less than 32% of the GNI per capita of Kuwait.

Can the HDI alone measure a country's level of development?

No. The concept of human development is much broader than what can be captured in the HDI, or any other of the composite indices in the Human Development Report (Inequality-adjusted HDI, Gender Inequality Index and Multidimensional Poverty Index). The HDI, for example, does not reflect political participation or gender inequalities. The HDI and the other composite indices can only offer a broad proxy on some of the key issues of human development, gender disparity and human poverty. A fuller picture of a country's level of

human development requires analysis of other indicators and information presented in the statistical annex of the report (see the Readers guide to the Report).

The original HDI methodology was revised in 2010 for the 20th anniversary edition of the Human Development Report. Are you keeping the same methodology this year?

The HDI remains a composite index that measures progress in the three basic dimensions—health, knowledge and income. The methodology remains the generally the same with the changes in the maxima used for transformation of component indicators to dimensional indices and the change in the aggregation of education indicators. These changes were explained earlier in this document.

Why did the Report change the indicators for measuring education and income in 2010?

The indicators were changed for several reasons. For example, adult literacy used in the old HDI (which is simply a binary variable, literate or illiterate, with no gradations) is an insufficient measure for knowledge achievement. By including average years of schooling and expected years of schooling, one can better capture the level of education and recent changes.

Gross Domestic Product (GDP) is the monetary value of goods and services produced in a country irrespective of how much is retained in the country. Gross National Income (GNI) expresses the income accrued to residents of a country, including some international flows, and excluding income generated in the country but repatriated abroad. Thus, GNI is a more accurate measure of a country's economic welfare. As shown in the 2010 Report, significant differences could exist between the income of a country's residents, measured by GNI or GDP.

Can HDI indicators be adapted at the country level?

Yes, the HDI indicators can be adapted to country-specific indicators provided they meet other aspects of statistical quality. The HDI can also be disaggregated at sub-national level to compare levels and disparities among different subpopulations within a country, provided that appropriate data at the level of disaggregation are available or can be estimated using sound statistical methodology. The highlighting of internal disparities using HDI methodology has prompted constructive policy debates in many countries.

Why is geometric mean better suited for the HDI than the arithmetic mean?

Unlike the old HDI, the HDI introduced in the 2010 HDR is based on the geometric mean and it takes into account differences in achievement across dimensions. Poor performance in any dimension is now directly reflected in the new HDI, which captures how well a country's performance is across the three dimensions. That is to say, a low achievement in one dimension is not anymore linearly compensated for by high achievement in another dimension. The geometric mean reduces the level of substitutability between dimensions and at the same time ensures that a 1% decline in index of say life expectancy at birth has the same impact on the HDI as a 1% decline in education or income index. Thus, as a basis for comparisons of achievements, this method is also more respectful of the intrinsic differences across the dimensions than a simple average.

What is the effect of fixing the maximum of GNI per capita at \$75,000?

Income is instrumental to human development, but the contribution diminishes as incomes rise. Fixing the maximum at \$75,000 also means that for countries with income greater than \$75,000 only \$75,000 will be used for computation of the HDI. Currently we have only 3 countries with GNI pc above the cup – Qatar, Liechtenstein and Kuwait. The projections based on a fairly realistic growth rates have shown that within next five years not more than 5 countries will exceed the limit.

What is the rationale behind the minimum values for indicators?

Generally, the minimum values are set to the values that a society needs to survive over time. For life expectancy -20 years is based on historical evidence (Maddison, 2010, and Riley, 2005), which indicates 20 years as the minimum. If a society or a subgroup of society has a life expectancy below the typical age of reproduction, that society would die out. Lower values have occurred during some crises, such as the Rwandan genocide, but these were exceptional cases that were not sustainable. See:

Maddison, A. 2010. Historical Statistics of World Economy: 1-2008 AD. Paris: Organization for Economic Cooperation and Development.

Riley, J.C. 2005. Poverty and Life Expectancy. Cambridge, UK: Cambridge University Press.

Noorkbakhsh (1998). The Human Development Index: Some Technical Issues and Alternative Indices. Journal of International Development 10, 589-605.

For both education indicators, the minimum is set to 0 since societies can subsist without formal education. For income, it is set at \$100 per capita GNI, which is lower than the lowest value attained by any country in recent history (Zimbabwe in 2008). Should any country's per capita GNI fall close to or below \$100, the minimum will be changed accordingly.

Why has the principle of "diminishing returns" not been applied to other indicators?

There are arguments for and against transforming the health and education variables to account for diminishing returns. It is true that health and education are not only of intrinsic value; they, like income, are instrumental to other dimensions of human development not included in the HDI (Sen, 1999). Thus, their ability to be converted into other ends may likewise incur diminishing returns. The approach is to value each year of age or education equally, and therefore the principle has been applied only to the income indicator.

Are the HDI dimensions weighted equally?

The HDI assigns equal weight to all three dimension indices; the two education sub-indices are also weighted equally. The choice of weights is based on the normative judgement that all three dimensions are equally important. Research papers that provide a statistical justification for this approach include Noorkbakhsh (1998) and Decanq and Lugo (2009). The HDI has more equal ranges of variation of dimension indices than the old one – before 2010, implying that the effective weighting is more equal than it was before.

Why does the HDI not include dimensions of participation, gender and equality?

As a simple summary index, the HDI is designed to reflect average achievements in three basic aspects of human development – leading a long and healthy life, being

knowledgeable and enjoying a decent standard of living. The policy of the Human Development Report Office has always been to construct additional complementary composite indices for covering some of the "missing" dimensions in the HDI. Gender disparity, inequality and human deprivation are measured by other indices (see Gender Inequality Index, Gender Development Index, Multidimensional Poverty Index and Inequality-adjusted HDI). Participation and other aspects of well-being are measured using a range of objective and subjective indicators and are discussed in the Report. Measurement issues related to these aspects of human development demonstrate the conceptual and methodological challenges that need to be further addressed.

What are the criteria for a country to be included in the HDI?

The Human Development Report Office strives to include as many UN member countries as possible in the HDI. To include a country in the HDI we need recent, reliable and comparable data for all three dimensions of the Index. For a country to be included, statistics should ideally be available from the relevant international data agencies.