



International Indices: Confusing or clarifying the poverty debate? The Human Development Index and other ways of quantifying difference in achieving human potential

Jane Carter, April 2013

The 2012 figures for UNDP's International Human Development Index came out on 14 March 2013 and made front page news in the English newspapers in Bangladesh. "*Bangladesh ahead of India in some areas*" championed one paper. Some positive news was certainly needed, given that other reports in the same paper covered violent anti-government clashes, school pupils falling behind in their studies due to the numerous all-day strikes, and acid attacks on women. But on what are the HDI figures based, from what data are they sourced, and what alternative indices exist?

In the latest figures, Bangladesh is ranked 146 out of 187 countries worldwide on the HDI. India is higher, at 136 (1). This puts India in the 3rd quartile of countries overall, those classed as having "Medium Human Development", and Bangladesh in the 4th quartile of countries overall, those having "Low Human Development". Yet the newspaper was correct that according to the UNDP, Bangladesh scores better than its geographically and economically giant neighbour "in some areas". Thus apparently on average a Bangladeshi adult can look forward to an additional 3.4 years of life over his or her Indian cousin, having benefitted from just slightly longer (4.8 compared to 4.4 years) in school. However, in finances the Indian cousin is likely to be far better off: the Gross National Income (GNI) per capita (PPP, Purchasing Power Parity) for India is \$ 3,285, compared to \$1,785 for Bangladesh. It is India's poor scores on life expectancy and schooling that keep its HDI low, as it is the composite of life expectancy, educational attainment and per capita income that are brought together, with equal weighting, in the HDI.

First introduced in 1990, "*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.*" (2) Although the Human Development Report Office notes that it "*does not collect data directly from countries*", quoting the main sources as UN organisations and the World Bank, the data is ultimately derived from national government statistics. There is considerable literature to suggest that national statistics for many countries need to be viewed with caution, however diligently produced (3). Herein lies one limitation; another is the fact that the index is based on average figures for the population as a whole. As such, it does not reveal differences within the population – differences that may be highly significant in terms of understanding poverty. In response to this, from 2010 onwards three additional indices have been calculated as part of the UNDP's Human Development Report: the Inequality-Adjusted HDI; the Gender Inequality Index; and the Multidimensional Poverty Index. Comment is made on each of these below, as well as on commonly used alternative indices - notably the Gini Index and the Global Gender Gap Index.

Measuring Inequality

The **Inequality-Adjusted HDI (IHDI)** takes into account inequalities within a country by "discounting" the average value of each of the three dimensions of life expectancy, education and income according to its level of inequality. Thus in a completely equal society, the IHDI and HDI would be the same, but the greater the degree of inequality, the lower the IHDI value. Bangladesh and India in fact have similar rankings of 0.374 and 0.392, indicating very significant inequality and thus lost human potential. The country with the lowest IHDI value (0.285), thus implying the most unequal society - in all three dimensions - is Angola (HDI ranking 148). The highest is Norway (0.894); Switzerland also has a high IHDI (0.849). Perhaps the most interesting way to use this index is to compare country ranking before and after adjustment for inequality. Generally speaking, former communist countries tend to improve their ranking when adjusted for inequality, whilst countries that have limited social security nets drop – examples being South Korea and the USA (which fall 18 and 13 places, respectively) (4).

Another, more commonly quoted index of inequality, is the **Gini coefficient** or **index**, which as used in this context, is based solely on the dimension of income. (Gini is the name of the statistician who elaborated the coefficient; it can be used in various applications with different modifications). The Gini index measures how income distribution or consumption expenditure per capita or per household deviates from a perfectly equal distribution. Thus a value of zero expresses perfect equality, and a value of 1 (or 100%), perfect inequality. Gini index figures are not available for all countries, or for every year, but a comparative table may be found in the CIA World Factbook (5). The index has such political implications that some countries are unwilling to disclose it; thus China made the economic headlines earlier this year when it released its figures for the last decade. These show the current Gini index at 0.474, although there are indications that true inequalities of income in China may be greater (6). For comparison, the CIA lists Lesotho as having the highest Gini index, at 0.632 (no figure for Angola is available), and Sweden the lowest, at 0.23. Switzerland also stands amongst the “least economically unequal” countries, with an index of 0.296.

Gender Specific Inequalities

These are captured in the UNDP **Gender Inequality Index** (GII), which attempts to quantify the loss in human development potential due to unequal opportunities between men and women. It combines women’s reproductive health (measured as maternal mortality ratio and the adolescent fertility rate), empowerment (measured by parliamentary representation and achievement in secondary and higher education) and participation in the labour market. In a situation of perfect equality, the index would be 0; the closer it is to 1, the worse women fare. The country that is fairly consistently at the bottom every year is Yemen, whilst Switzerland is ranked higher than many Swiss people might expect, alongside Denmark at rank three (only surpassed by Sweden and, at the top, the Netherlands). Somewhat ironically given the tardiness with which Swiss women gained the vote, Switzerland has jumped upwards in the index in recent years as a result of having a high number of women ministers, and thus strong female parliamentary representation.

The **Global Gender Gap Index** (7) of the World Economic Forum is a more commonly quoted measure of gender inequalities by country, and incorporates a greater number of indicators than the GII - including, for example, sex ratio (taking into account female foeticide) and women’s versus men’s salaries. It can thus be argued to be a more nuanced index – but it does not take into account *per se* a country’s level of development. Under this index, which now includes 135 countries, Iceland comes top and Switzerland is reduced to 10th place – with Saudi Arabia, Syria, Chad, Pakistan, and Yemen taking up the bottom ranks (Afghanistan and Niger are not included).

The Multidimensionality of Poverty

The most complex measurement of poverty in the UNDP report is the **Multidimensional Poverty Index** (MPI), which uses the same basic criteria of health, education and living standards but in a more detailed manner, taking into account their interaction. This index was first developed through the Oxford Poverty and Human Development Initiative (8). Unlike the other indices, the MPI is based on micro-level household surveys that permit all the indicators to be traced to particular individuals (that is, the data is associative) – thus for example it is possible to identify how many people live without electricity or a toilet and also suffer malnutrition. The manner of calculation is complex, but it allows for a measurement of both the nature and intensity of poverty that is then aggregated into a national measure of multidimensional poverty. Due to limited data availability, the MPI is only currently calculated for 104 countries (9).

So what index should the development professional trust? The HDI is still the most widely quoted, and national government officials apparently take note of their country’s ranking. Yet for anyone conscious of the multidimensional poverty, the MPI is a brave attempt to capture this complexity, and as such deserves to be far more widely used and quoted. Of course, in designing any specific development initiative it is the local reality that counts – and for this, locally sourced data is essential.

References

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