Multidimensional Poverty Index

The Multidimensional Poverty Index (MPI) is an international measure of poverty. Covering 109 developing countries, the MPI complements income poverty and Millennium Development Goals (MDGs) measures by reflecting the acute deprivations that people face at the same time. It identifies people who contend with multiple deprivations across three dimensions: education, health, and living standards. The MPI was developed by the Oxford Poverty and Human Development Initiative (OPHI) and the United Nations Development Programme Human Development Report Office (UNDP HDRO) for the UNDP's flagship *Human Development Report*.

What's New for 2011?

- The MPI has been calculated for 5 new countries and updated for 20 countries
- The MPI has been calculated for 683 sub-national regions across 66 countries
- Changes of MPI over time have been analysed for 10 countries and their regions
- The MPI is robust to a range of plausible weights and poverty cutoffs (Alkire *et al.* 2011)

Key Findings:

- The MPI is estimated for **109 countries representing 5.3 billion people – or 79% of the global population –** and 93% of people in developing countries (2008 population figures).
- **1.65 billion people**, 31%, are identified as MPI poor.
- **Most MPI poor people live in middle-income countries** (1,189 million versus 459 million in low-income countries).
- **50% of the MPI poor people live in South Asia and 29% in Sub-Saharan Africa**. Africa's MPI is higher yet the poorest 26 regions of South Asia have slightly higher poverty rates and more MPI poor people than the 38 countries of Sub-Saharan Africa.
- **Income classifications hide wide disparities in MPI poverty**. In low-income countries the percentage of MPI poor people ranges from 5% in Kyrgyzstan to 92% in Niger. In middle-income countries this ranges from 0% in Belarus to 77% in Angola.
- **MPI varies within countries.** Nepal has higher MPI poverty than Cambodia, but the poorest region of Cambodia, is poorer than Nepal's poorest region. The percentage of MPI poor in Cambodia ranges from 17% to 83%.
- **Poverty reduction over time varies by dimension**. Bangladesh reduced poverty across all dimensions; Kenya reduced its MPI mainly through improvements in living standards.
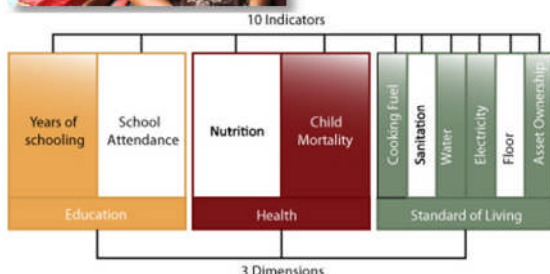
MPI – Brief Overview

The MPI has three dimensions and uses 10 indicators, which reflect some of the MDGs and thus international standards of poverty (Alkire and Santos, 2010, Alkire *et al.* 2011). Each dimension is equally weighted, and each indicator within each dimension is equally weighted. The MPI methodology follows Alkire and Foster (2011).
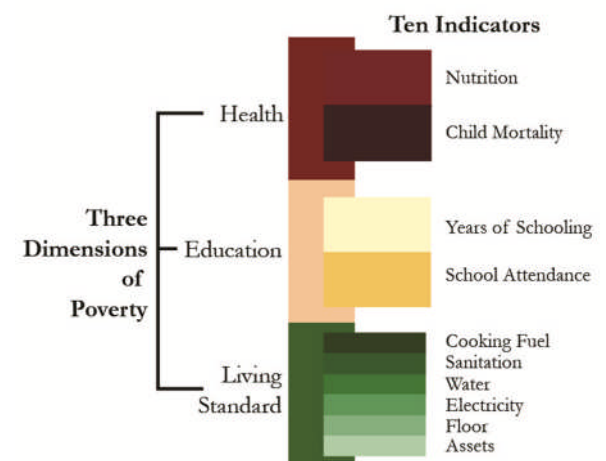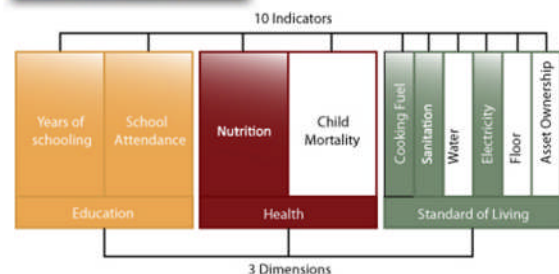

Manuel and Lola, Dominican Republic

The shaded indicators show the deprivations that Manuel and Lola face. Their family is deprived in 56% of the indicators.

Phuba, Bhutan

The shaded indicators show the deprivations that Phuba faces. She is deprived in 67% of the indicators.

Inside the MPI

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1. Education (each indicator is weighted equally at 1/6)
   Years of Schooling: deprived if no household member has completed five years of schooling
   School Attendance: deprived if any school-aged child is not attending school in years 1 to 8

2. Health (each indicator is weighted equally at 1/6)
   Child Mortality: deprived if any child has died in the family
   Nutrition: deprived if any adult or child for whom there is nutritional information is malnourished

3. Standard of Living (each indicator is weighted equally at 1/18)
   Electricity: deprived if the household has no electricity
   Drinking Water: deprived if the household does not have access to safe drinking water or it is more than 30 minutes' walk away
   Sanitation: deprived if they do not have improved sanitation or if their toilet is shared
   Flooring: deprived if the household has a dirt, sand or dung floor
   Cooking Fuel: deprived if the household cooks with wood, charcoal or dung
   Assets: deprived if the household does not own more than one of: radio, TV, telephone, bike, motorbike, or refrigerator and does not own a car or tractor

What makes a person MPI poor?
A person is identified as multidimensionally poor if he or she is deprived in at least one third of the dimensions. One deprivation alone may not represent poverty.

Why the MPI rather than only a Dashboard?

The MPI is always reported with a dashboard of consistent indicators. But a traditional dashboard cannot show who contends with several deprivations at once. The MPI reflects the multiple deprivations each person faces at the same time. For example, the MPI shows the deprivations faced by Manuel and Lola, and Phuba, above, who are all living in MPI poverty. It can be broken down for a state, ethnic or other group, or used nationally, to reveal the incidence and intensity of poverty, and also by indicator to show how people are poor. The dashboard associated with the MPI shows:

- **Incidence of poverty**. The percentage of multidimensionally poor people.
- **Intensity of poverty**. The average proportion of deprivations poor people face at the same time.
- **Composition of poverty.** The percentage of people who are poor and are deprived in each of the ten component indicators of the MPI.

Data

The MPI is based on the latest publicly available data from: Demographic and Health Surveys (DHS), Multiple Indicator Cluster Surveys (MICS), and the World Health Survey (WHS), with special data used for six countries.

As more recent data are available, the MPI will be updated. Significant updates are expected from 2012 to 2014.

Is the MPI Robust?

The MPI country rankings are robust to a plausible range of weights and cutoffs:

- 95% of country comparisons do not change if the MPI is computed using two alternative poverty cutoffs: 20% of weighted indicators and 40% of weighted indicators.
- 97% of Sub-Saharan African comparisons and 100% of South Asian comparisons are robust for the same two alternative poverty cutoffs, as well as 95% of Arab States and 92% in Latin America.
- If the weights are varied three times to give 50% to one dimension and 25% to the others in turn, rank correlations with the MPI are greater than 0.83, and 85% of pairwise comparisons are robust. Hence the MPI is robust to a range of weights.

National Multidimensional Poverty Measures

The MPI was devised as an internationally comparable measure of acute poverty. Much can be gained by creating national MPI measures that combine this methodology with country-specific data and indicators to reflect local cultural, economic, climatic and other factors. Mexico, Bhutan and Colombia have official national multidimensional measures whose indicators and cutoffs are tailored to their context and goals.

Prospects

The MPI aims to inform and to stimulate debate on how to create multidimensional poverty measures for different countries and contexts. OPHI and collaborators are also investigating topics such as multidimensional poverty dynamics, policy evaluation, trade-offs between indicators, the relationship of MPI to income poverty, household composition effects, the components and sequences of policies associated with multidimensional poverty reduction, and specific country studies and topical studies such as child poverty and women's empowerment. Feedback, suggestions, collaboration and criticisms are welcomed at: **www.ophi.org.uk/about/contact-us**.

References

Alkire, S. and Foster, J. 2011. Counting and Multidimensional Poverty Measurement. Journal of Public Economics.
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