

Poverty

Lecture 3/1

EE461 – 2/2018

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Outline

- Poverty: conceptual issues
- Poverty measures
- The lives of the poor: characteristics and behaviors (lecture 3/2)
 - Are they rational?

Poverty: conceptual issues

- A poverty line: a critical threshold of income, consumption, or access to goods and services below which individuals are declared to be poor.
 - A minimum level of ‘acceptable’ economic participation in a given society at a given point in time.

Concerns on poverty measurement:

- Overall expenditure or item-by-item consumption?
 - Look at actual, observed consumption basket or expenditure (overall income) falls below the minimum required/threshold?
 - Income elasticities may be high, but nutrient elasticities may not be correspondingly high.
 - Income represents the capacity to consume, not consumption

Concerns on poverty measurement

- Absolute or relative?
 - Absolute: independent of the contours of the society under consideration
 - Relative: evaluate relative to the prevailing socioeconomic standards
 - Poverty lines should share some common components, but vary from country to country
- Temporary or chronic?
 - People in a state of poverty often experience significant fluctuations in their income and consumption.
 - ‘Temporary poverty’ occurs when people temporarily enter a poverty state because of bad economic shocks.
 - ‘Chronic poverty’ is when they constantly stay in a poverty state for a long time.
 - Policies to deal with problems are also different.

Concerns on poverty measurement

- Households or individuals?
 - Often income and consumption data are available at household-level
 - Individuals: just do average?, but need adult equivalence scales to convert children's consumption as a fraction of a representative adult
 - What's about allocation of expenditures within the household? >> intra-household allocation
- Why a poverty line, anyway?
 - keep in mind: poverty is not a 'zero-one' concept (poor vs. non-poor)
- <http://www.worldbank.org/en/news/video/2018/10/17/new-ways-of-looking-at-poverty>

Poverty measures

- Poverty line, general definition: an expenditure threshold that is regarded as minimally necessary for 'adequate' participation in economic life. People below this threshold will be said to be poor.
- y – income/expenditure
- subscripts i, j – individuals
- p – poverty line
- m – mean income of the economy
- 'relative incidence': compared to the total population of the country or region under consideration
- <http://www.worldbank.org/en/topic/measuringpoverty>
 - PovCalNet: <http://iresearch.worldbank.org/PovcalNet/home.aspx>
 - Poverty & Equity Data Portal: <http://povertydata.worldbank.org/poverty/home/>

Poverty measures

- **Head-count ratio**
 - Head-count (HC): the number of individuals i such that $y_i < p$
 - Head-count ratio (HCR): $HCR = HC/n$
 - n is the total population
 - Measure incidence of poverty
 - Comments: fail to capture the extent to which individual income falls below the poverty line, lead to biased policy decisions toward individuals who are very close to the poverty line
 - Ignore 'relative deprivation' among the poor (inequality among the poor)

Poverty measures

- Poverty gap ratio (PGR)

$$\text{PGR} = [\sum_{y_i < p} (p - y_i)] / nm$$

- The ratio of the average of income needed to get all poor people to the poverty line, divided by the mean income of the society
- a measure of resources required to eradicate the poverty
- What if an economy is highly unequal but overall wealthy with a large number of poor people?

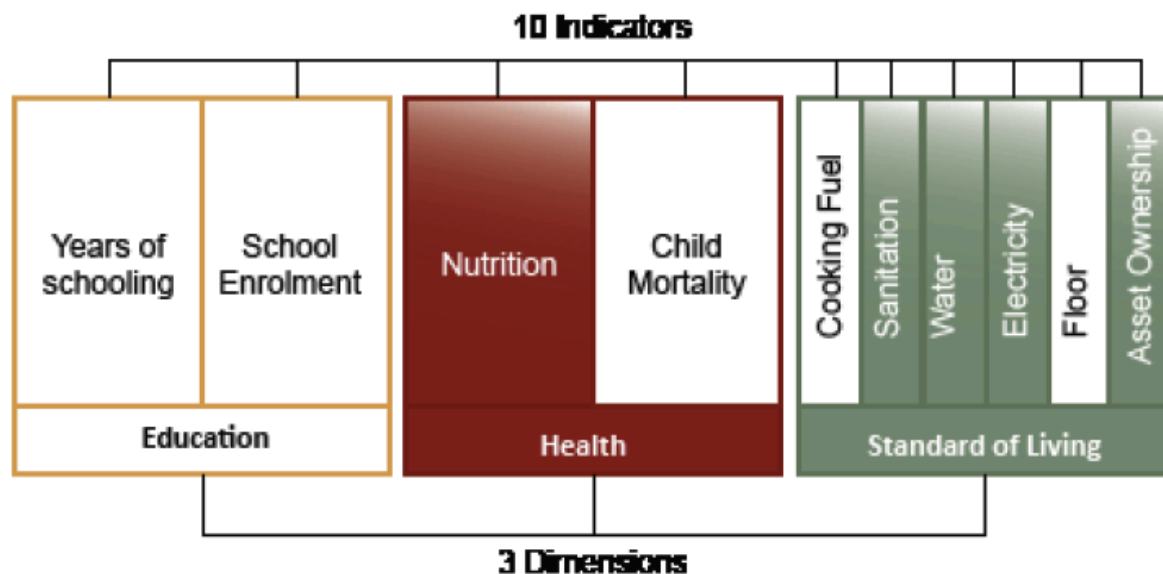
- Income gap ratio (IGR)

$$\text{IGR} = [\sum_{y_i < p} (p - y_i)] / pHC$$

- Total shortfall of the poor from the poverty line, but also divide the shortfall by the total income required to bring all the poor people to the poverty line
 - Capture the acuteness of poverty
- PGR & IGR capture 'depth' or 'per capita intensity' of poverty

Other poverty measures

- **FGT₂ index (Squared poverty gap)**
 - FGT: Forster-Greer-Thorbecke
 - $FGT_2 = [\sum_{y_i < p} (p - y_i) / p]^2 / n$
 - Takes into account inequality among the poor: a weighted sum of poverty gaps, putting more weight on observations that fall far below the poverty line
- **Sen Index, Sen-Shorrocks-Thon Index, Watts Index**
- **Multidimensional Poverty Index (MPI)**



<https://ophi.org.uk/multidimensional-poverty-index/global-mpi-2018/>

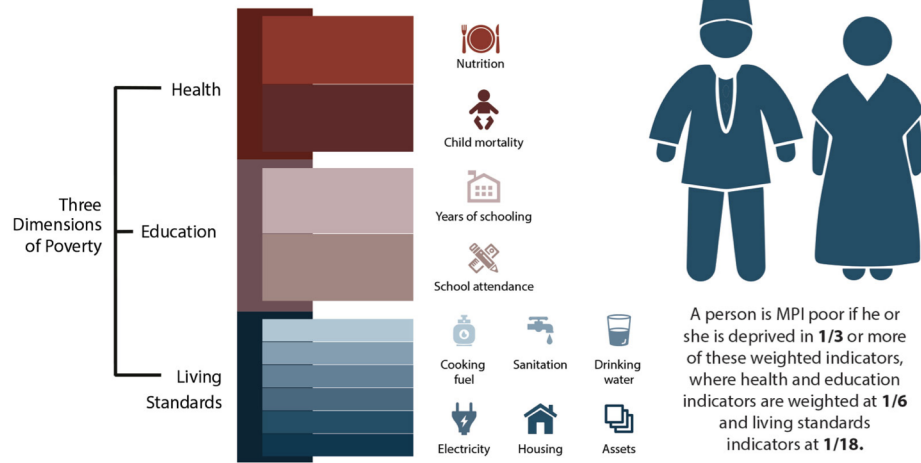
Table 1: The dimensions, indicators, deprivation cutoffs and weights of the global MPI

Dimensions of poverty	Indicator	Deprived if...	Weight
Education	Years of Schooling	No household member aged 10 years or older has completed five years of schooling.	1/6
	Child School Attendance	Any school-aged child ⁺ is not attending school up to the age at which he/she would complete class 8.	1/6
Health	Child Mortality	Any child has died in the family in the five-year period preceding the survey	1/6
	Nutrition	Any adult under 70 years of age, or any child for whom there is nutritional information is undernourished in terms of weight for age*.	1/6
Living Standard	Electricity	The household has no electricity.	1/18
	Improved Sanitation	The household's sanitation facility is not improved (according to MDG guidelines), or it is improved but shared with other households**.	1/18
	Improved Drinking Water	The household does not have access to improved drinking water (according to MDG guidelines) or safe drinking water is at least a 30-minute walk from home, roundtrip***.	1/18
	Flooring	The household has a dirt, sand, dung or 'other' (unspecified) type of floor.	1/18
	Cooking Fuel	The household cooks with dung, wood or charcoal.	1/18
	Assets ownership	The household does not own more than one radio, TV, telephone, bicycle, motorbike or refrigerator and does not own a car or truck.	1/18

<https://ophi.org.uk/multidimensional-poverty-index/databank/>

2018 Global Multidimensional Poverty Index (MPI)

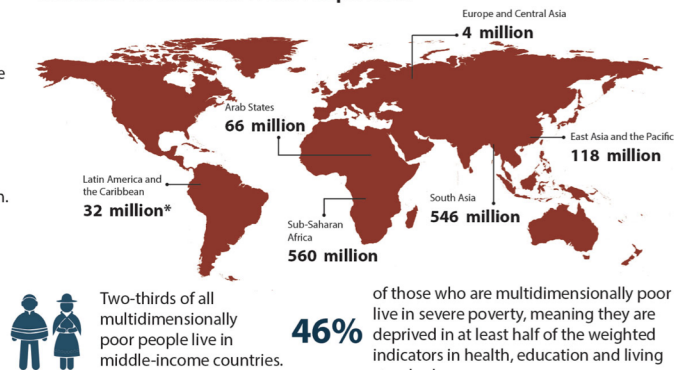
The global MPI directly measures the deprivations people face at the same time in different aspects of their lives. The MPI has three dimensions and ten indicators.



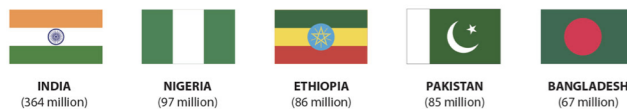
The 2018 global MPI estimations show:

- Today, there are **1.3 billion** MPI poor people.
- 83%** of the MPI poor live in Sub-Saharan Africa and South Asia.
- Half of MPI poor people are children.
- 90%** of all children are MPI poor in South Sudan and Niger.
- 35** at least half of all children are MPI poor.

Where Do 1.3 billion MPI Poor People Live?



Countries with the largest number of people living in multidimensional poverty



*Preliminary estimates, does not include data for Brazil.

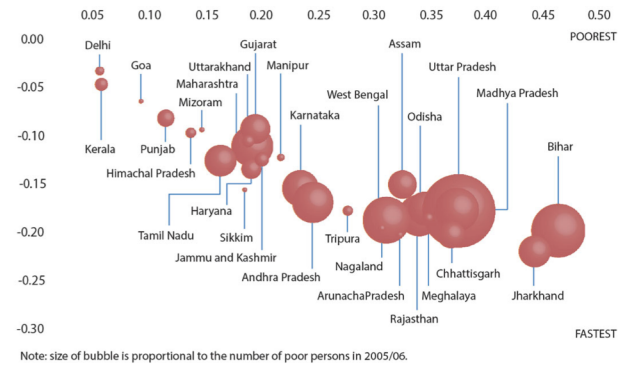
India: A super trend but more work needs to be done

271 million people MOVED OUT OF POVERTY IN TEN YEARS.

It has cut its poverty rate from 55 percent to 28 percent, and the poorest states reduced poverty the fastest.

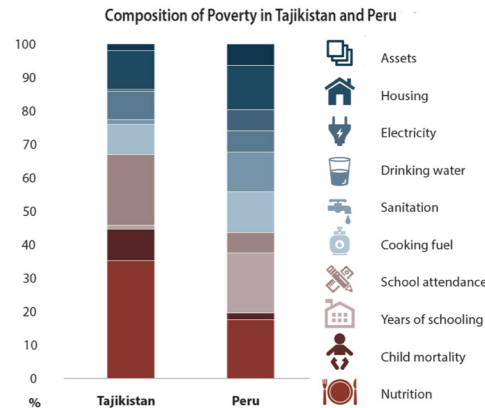
Yet India still has the largest number of people living in poverty in the world: 364 million

Absolute Change in MPI between 2005/06 and 2015/16 with respect to MPI level in 2005/06



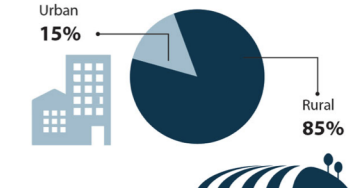
How are people poor? MPI can be broken down by indicator to show what deprivations create poverty in a country

- How people are MPI poor varies a lot among countries – necessitating very different policy responses.
- For example, Tajikistan and Peru have similar MPI levels, but they differ markedly in the composition of their poverty. In Peru years of schooling contributes 18 percent of the MPI while in Tajikistan it is only 1 percent.



Multidimensional poverty is more intense in rural areas

Globally, there are 1.1 billion people living in multidimensional poverty in rural areas and 200 million people living in multidimensional poverty in urban areas.



The global MPI is an important tool to measure and tackle poverty, because it:

- Shows the proportion of people who are MPI poor and how they are poor.
- Reveals where poor people live.
- Demonstrates how poverty has changed over time.

The global MPI helps to end poverty in all its forms and dimensions.

#MultidimensionalPovertyIndex #MPI4SDGs
For more information please visit ophi.org.uk