

# OPHI

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Counting and Multidimensional Poverty Measurement

Sabina Alkire & James E. Foster

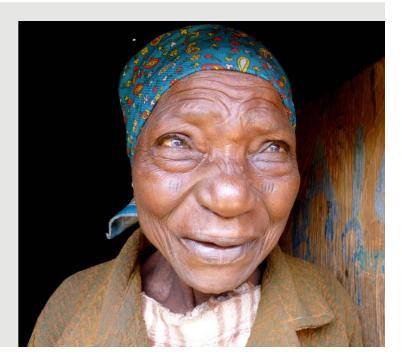
Multidimensional Poverty Index: A New Approach to Global Poverty

Sabina Alkire & Maria Emma Santos

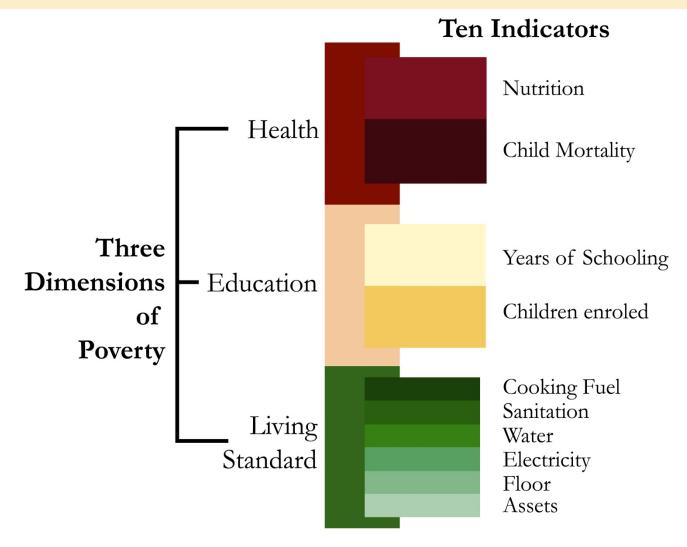
#### **Motivation**

"Human lives are battered and diminished in all kinds of different ways." *Amartya Sen* 

"The need for a multidimensional view of poverty and deprivation," Anand and Sen wrote in 1997, "guides the search for an adequate indicator of human poverty."



#### **Dimensions and Indicators of MPI**



#### Methodology: Alkire and Foster

The MPI combines two aspects of poverty

- 1) *Incidence*  $\sim$  the percentage of people who are poor, or the headcount ratio H.
- 2) *Intensity* of people's poverty ~ the average percentage of dimensions in which poor people are deprived A



### Methodology: Alkire and Foster

#### Identification:

Any person experiencing 30% or more of the weighted deprivations is poor.

Aggregation:

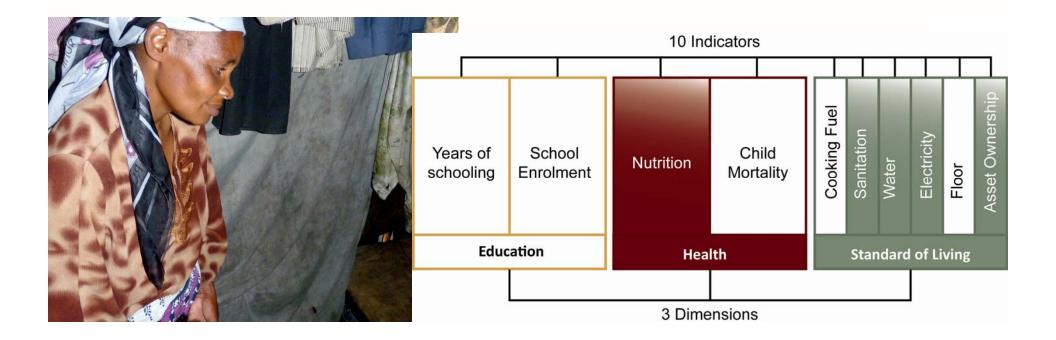
The MPI formulae is:

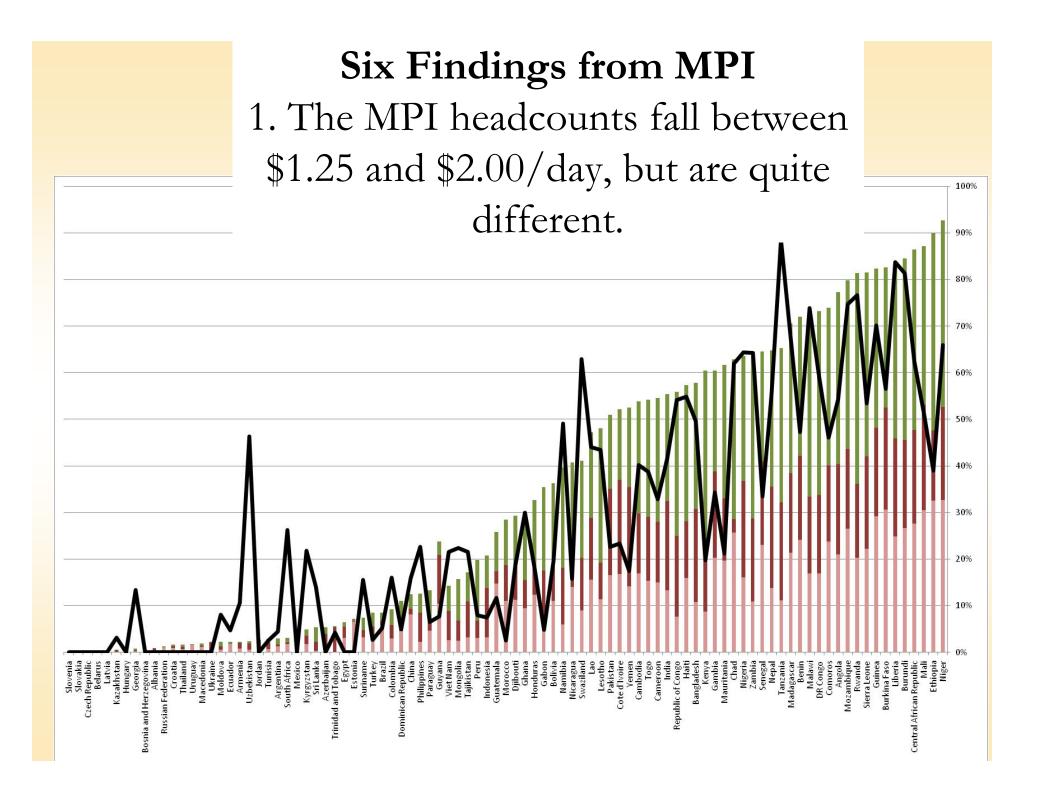
 $MPI = H \ge A$  Incidence  $\ge$  Intensity

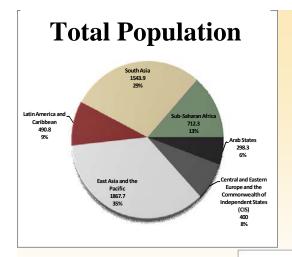


#### What is new? Intensity of Poverty

The MPI uses the proportion of dimensions in which each person is deprived at the same time (all MPI poor are deprived in 30% or more).



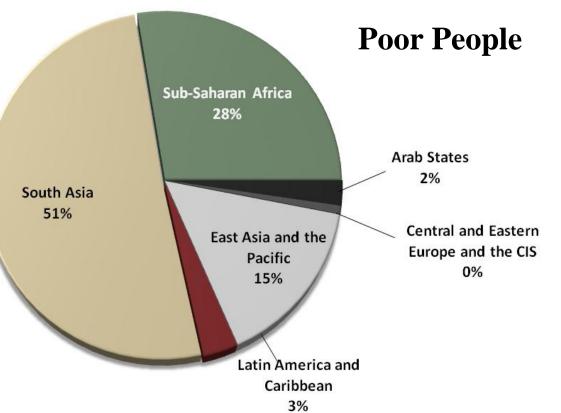




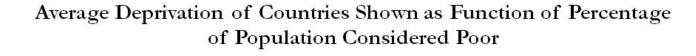
#### Most poor people in the world by MPI live in South Asia, followed by Sub-Saharan Africa.

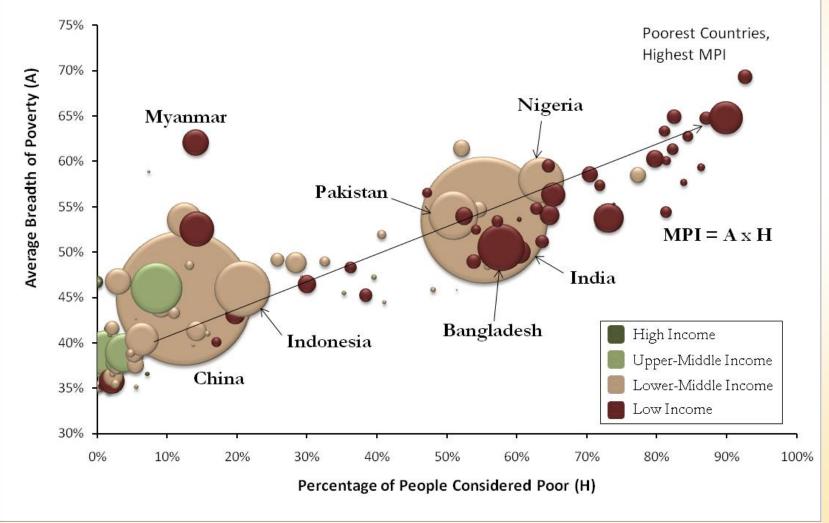
**Regional Distribution of the World's Poor (%)** 

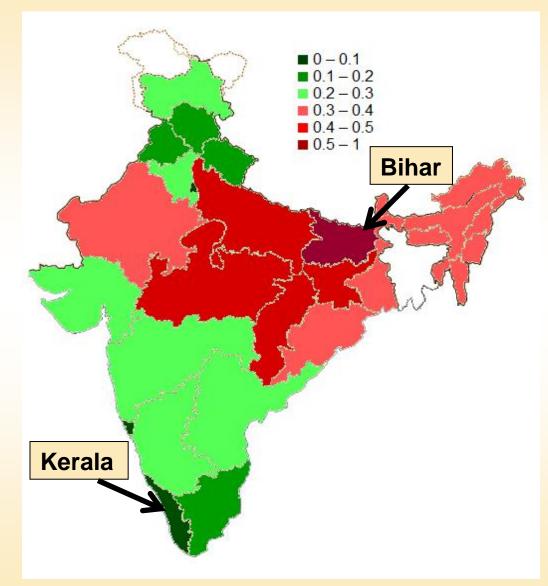




# 3. The intensity of poverty is greatest in the countries with the highest proportion of poor.



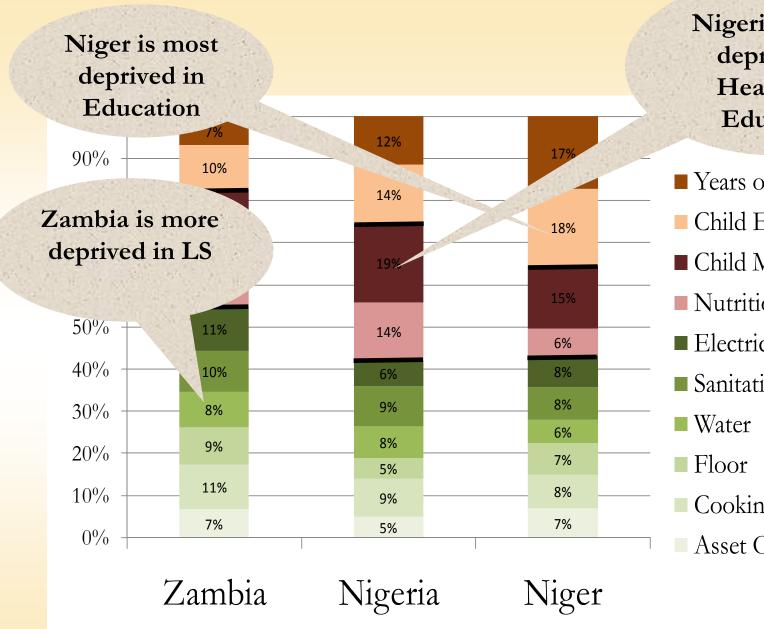




4. MPI varies greatly by region & ethnicity
•In Kerala India 16% of the population is MPI poor; in Bihar it is 81%.

•The poorest 8 Indian states are home to more MPI poor people than the 26 poorest African countries (421M v 410M). 5. There are different compositions of poverty by dimensions & indicators

- Three countries: Zambia, Nigeria and Niger.
- MPIs are similar for Zambia (0.32) and Nigeria (0.37) although much higher for Niger (0.64).
- Income poverty (\$1/day) is similar in the three (64-66%).

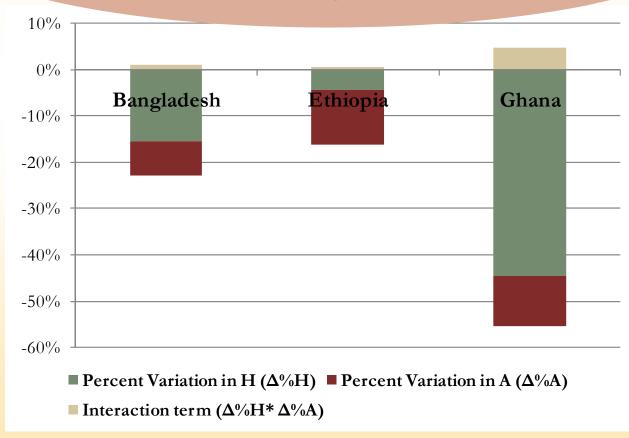


Nigeria is more deprived in Health and Education

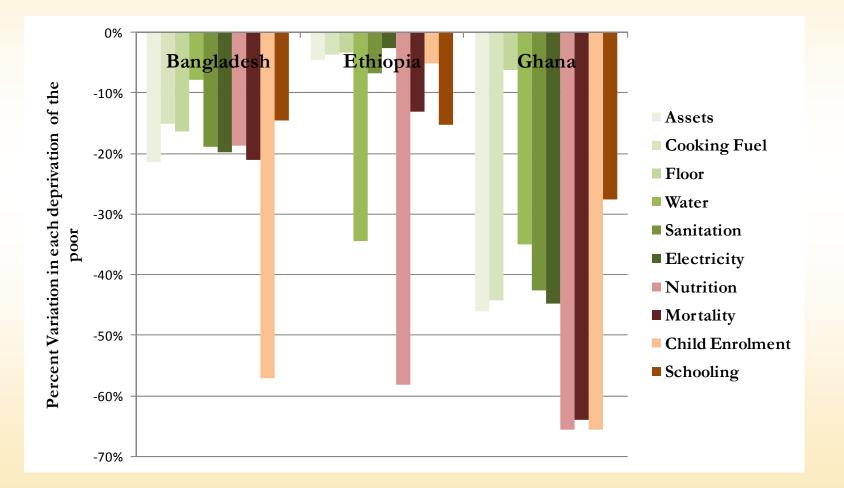
■ Years of Schooling Child Enrolment ■ Child Mortality Nutrition Electricity Sanitation Cooking Fuel Asset Ownership

## 6. Reducing MPI over time

Ghana and Bangladesh reduced H relatively more than A, Ethiopia the other way round.



Bangladesh improved school attendance, Ethiopia nutrition and water, Ghana many at the same time.



#### **Debate and Input**

Thus far 81% of the comments on MPI have been positive, 11% are mixed and 8% are critical.

The critical comments mainly focus on the data sources used for a country; however in all cases we have enquired and find that the MPI uses the most up to date publicly available data; it will be updated as new data emerge.

Queries have also been raised regarding the robustness of MPI to a range of plausible weights; we find that 88% of MPI rankings are totally robust when weights vary from 25% to 50% on each dimension.

## **Policy Applications**

How can the MPI help governments, civil society, and agencies to reduce poverty?

- Identify interconnections among deprivations. This is needed to address MDGs strategically.
- Show impacts. Reflects the results of policy interventions quickly.
- Allocate resources effectively. Target those with the greatest intensity of poverty.

These help design effective, coherent policies.

## Finally

"Achieving the MDGs will require increased attention to those most vulnerable."

UNDP Millennium Development Goal Report 2010

"Acceleration in one goal often speeds up progress in others;" to meet MDGs strategically we need to see them together. *Roadmap towards the Implementation of the MDGs* 

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