

# OPHI

OXFORD POVERTY & HUMAN DEVELOPMENT INITIATIVE

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UNIVERSITY OF  
OXFORD

## The Multidimensional Poverty Index 2013: New Analysis

### Launch of Multidimensional Poverty Peer Network

Oxford University

June 07, 2013

*Tabita, Kenya*



*Rabiya, India*



*Stéphanie, Madagascar*



*Agathe, Madagascar*



*Dalma, Kenya*



*Ann-Sophie, Kenya*



*Valérie, Madagascar*



# OPHI – MPI Team 2013

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OPHI prepare the MPI for publication in the UNDP *Human Development Report* and we are grateful to our colleagues in HDRO for their support.

*Tabita, Kenya*

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# WHAT IS NEW?

# What is new in MPI 2011?

Details in: Alkire, Conconi and Roche (2013)

## New data:

Updated data for 16 countries

HDR 2013 does not report MPI for 5 countries whose data is before 2002

Two years comparable estimations for 22 countries (with same dataset and rigorous standardization of the indicators)

Regional decomposition for over 65 countries obtaining over 663 comparable sub national estimates – time comparison is also possible for 129 of these regions

Armenia (DHS 2010)  
Burkina Faso (DHS 2010)  
Cambodia (DHS 2010)  
DR Congo (MICS 2010)  
Ethiopia (DHS 2011)  
Guyana (DHS 2009)  
Malawi (DHS 2010)  
Nepal (DHS 2011)  
Peru (DHS 2008)  
Rwanda (DHS 2010)  
Senegal (DHS 2010/11)  
Swaziland (MICS 2010)  
Tanzania (DHS 2010)  
Uganda (DHS 2011)  
Viet Nam (MICS 2010)  
Zimbabwe (DHS 2010/11).

# 1. Data: Surveys

Demographic & Health Surveys (*DHS - 51*)

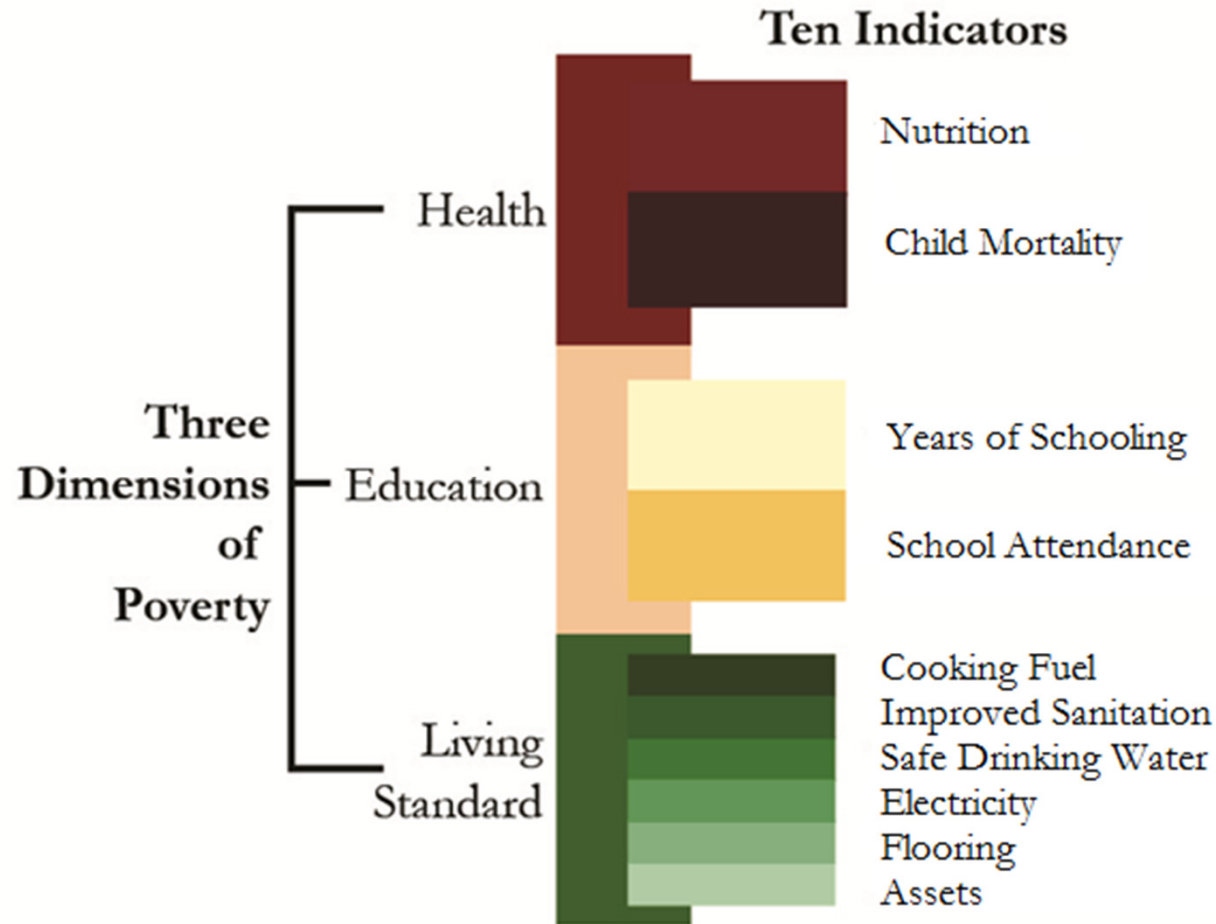
Multiple Indicator Cluster Surveys (*MICS - 30*)

World Health Survey (*WHS - 17*)

Additionally we used 6 special surveys covering urban Argentina (ENNyS), Brazil (PNDS), Mexico (ENSANUT), Morocco (ENNVMM), Occupied Palestinian Territory (PAPFAM), and South Africa (NIDS)

Constraints: Data are 2002-2011. Not all have precisely the same indicators.

# 2. MPI Dimensions, Weights & Indicators

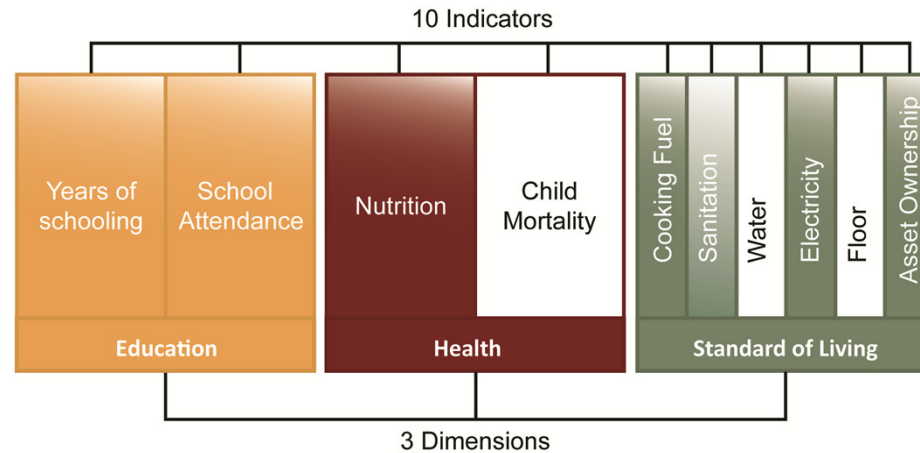
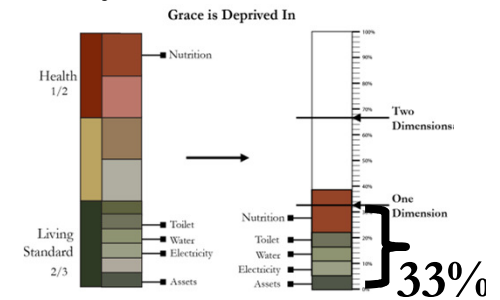


# 3. Identification: Who is poor?

People are multidimensionally poor if they are deprived in 33% of the dimensions.



**Endah's deprivations: 73%**



### 3. What is the MPI?

- The MPI is one implementation of the first measure of the Alkire & Foster family.
- The MPI is the product of two components:

$$\text{Formula: } M_0 = H \times A$$

- 1) **Incidence** ~ the percentage of people who are disadvantaged, or the headcount ratio **H**.
- 2) **Intensity** of people's deprivation ~ the average share of dimensions in which disadvantaged people are deprived **A**.





# WHERE DO THE POOR LIVE

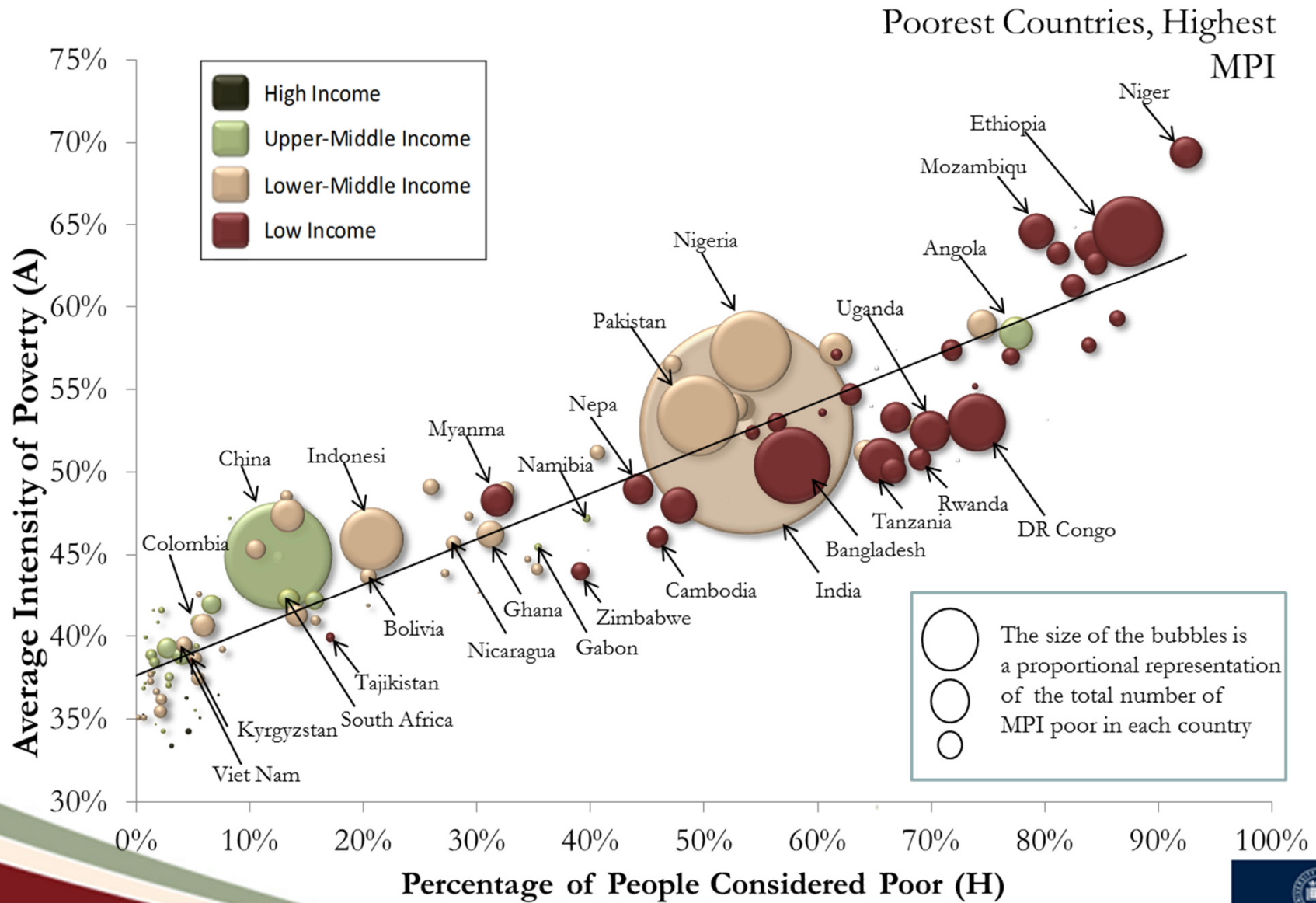
# 104 Developing Countries:

- ~ 29 **Low Income Countries**, (681M), 86%
- ~ 67 **Middle Income Countries**, (4634), 93%:
  - ~ 42 **Lower Middle Income** (2433M) 98%
  - ~ 28 **Upper Middle Income** (2201M) 89%
- ~ 8 **High Income Countries** (43M), of which:
  - ~ 5 **OECD** (29M)
  - ~ 3 **non-OECD** (13M)

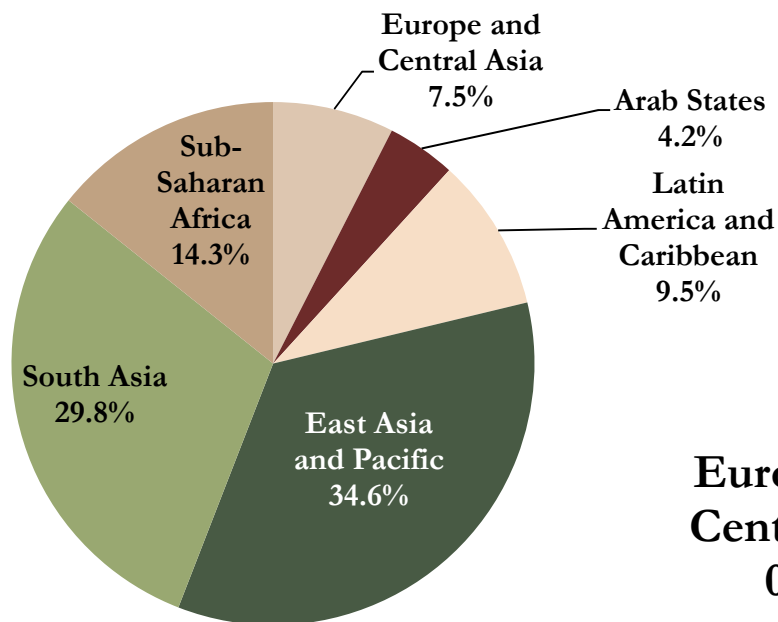
***Total Population: 5.4 Billion people***

Which is 78% of the world's population  
(population figures from 2010; data from 2002-2011).

# MPI varies greatly within income categories

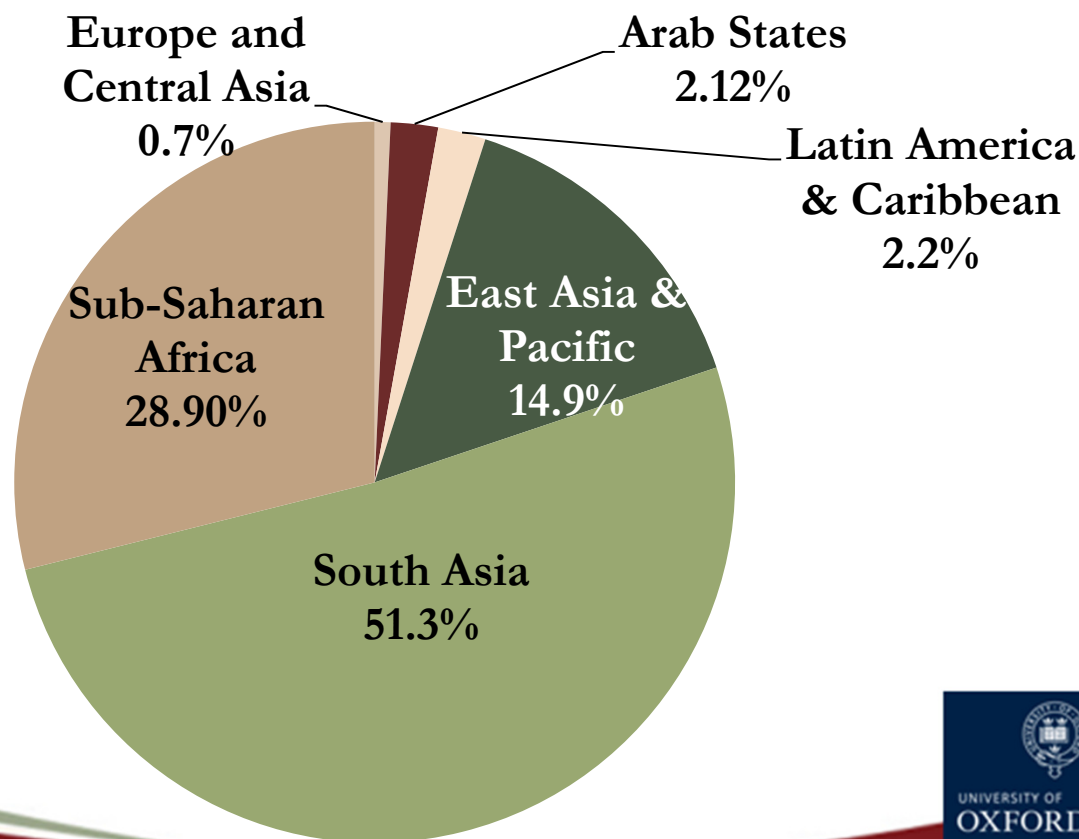


## Total Population in 104 MPI countries



**Half of the world's MPI people live in South Asia, and 29% in Sub-Saharan Africa**

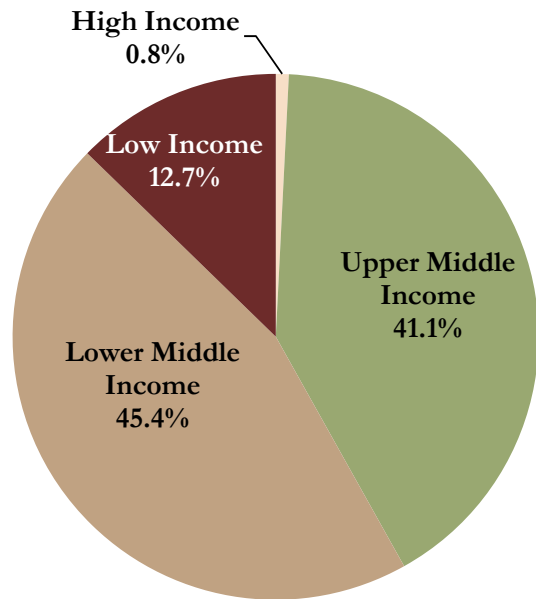
## MPI poor people by region



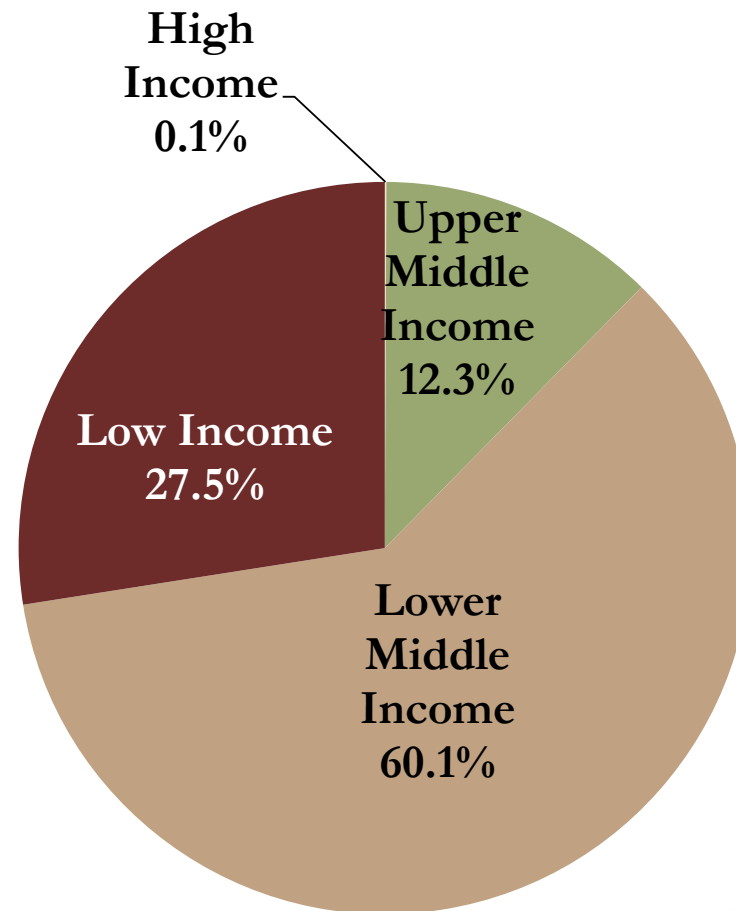
# Most poor people live in middle-income countries.

72% of MPI poor people live in Middle Income Countries

### Total Population by Income Category



### MPI Poor Population



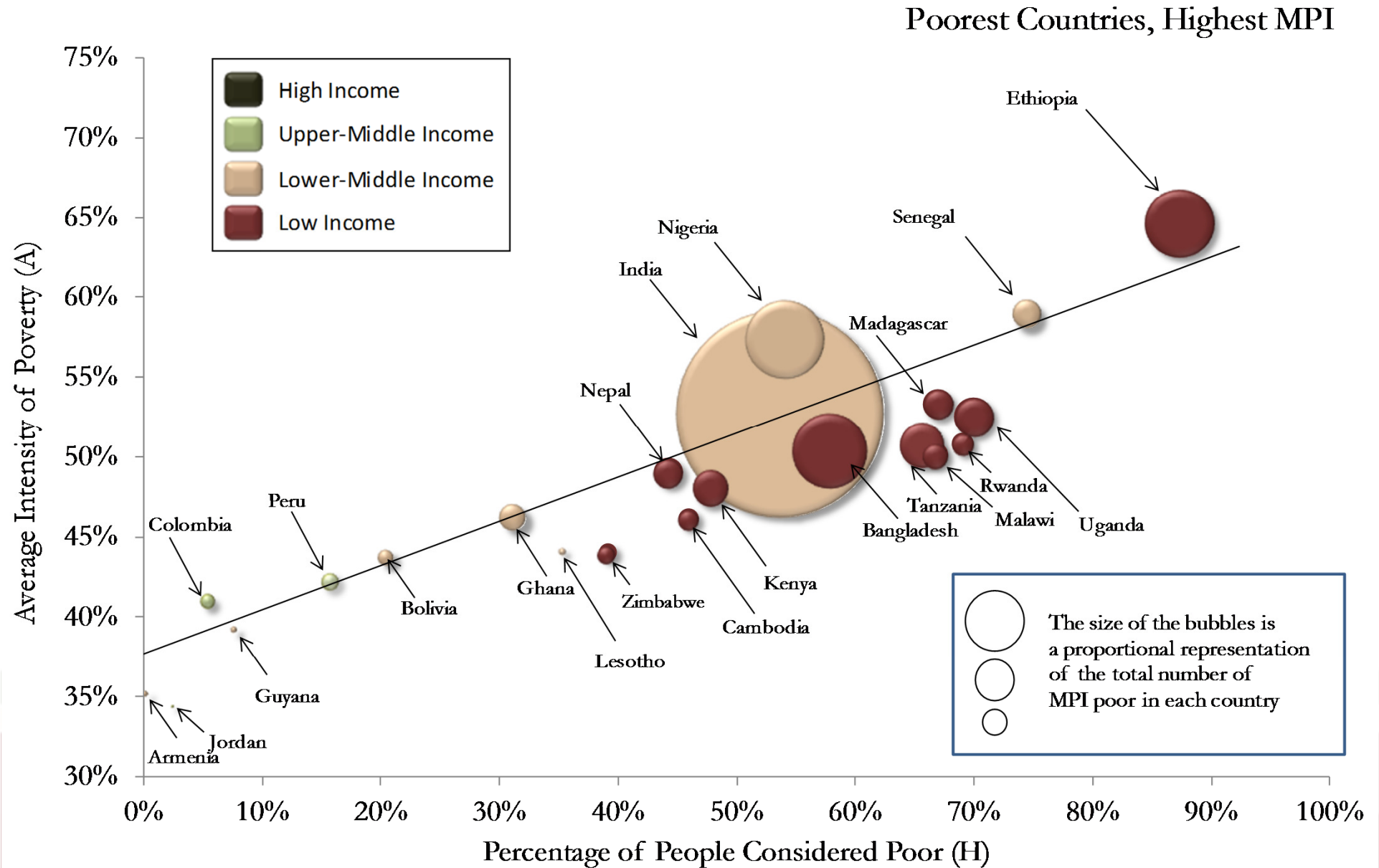
2010 Population Data



# Analysis overtime

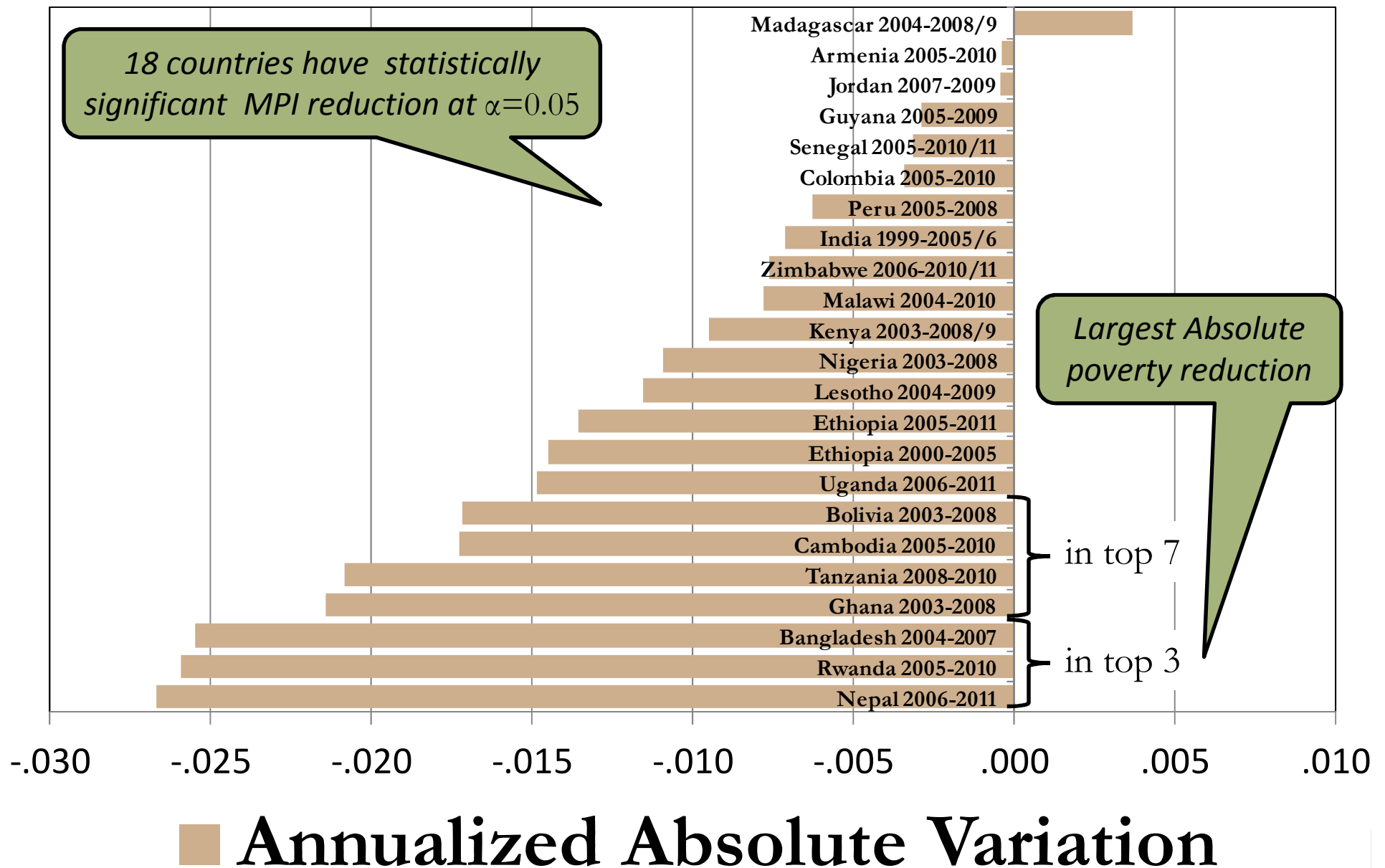


# Analysis over time in 22 countries





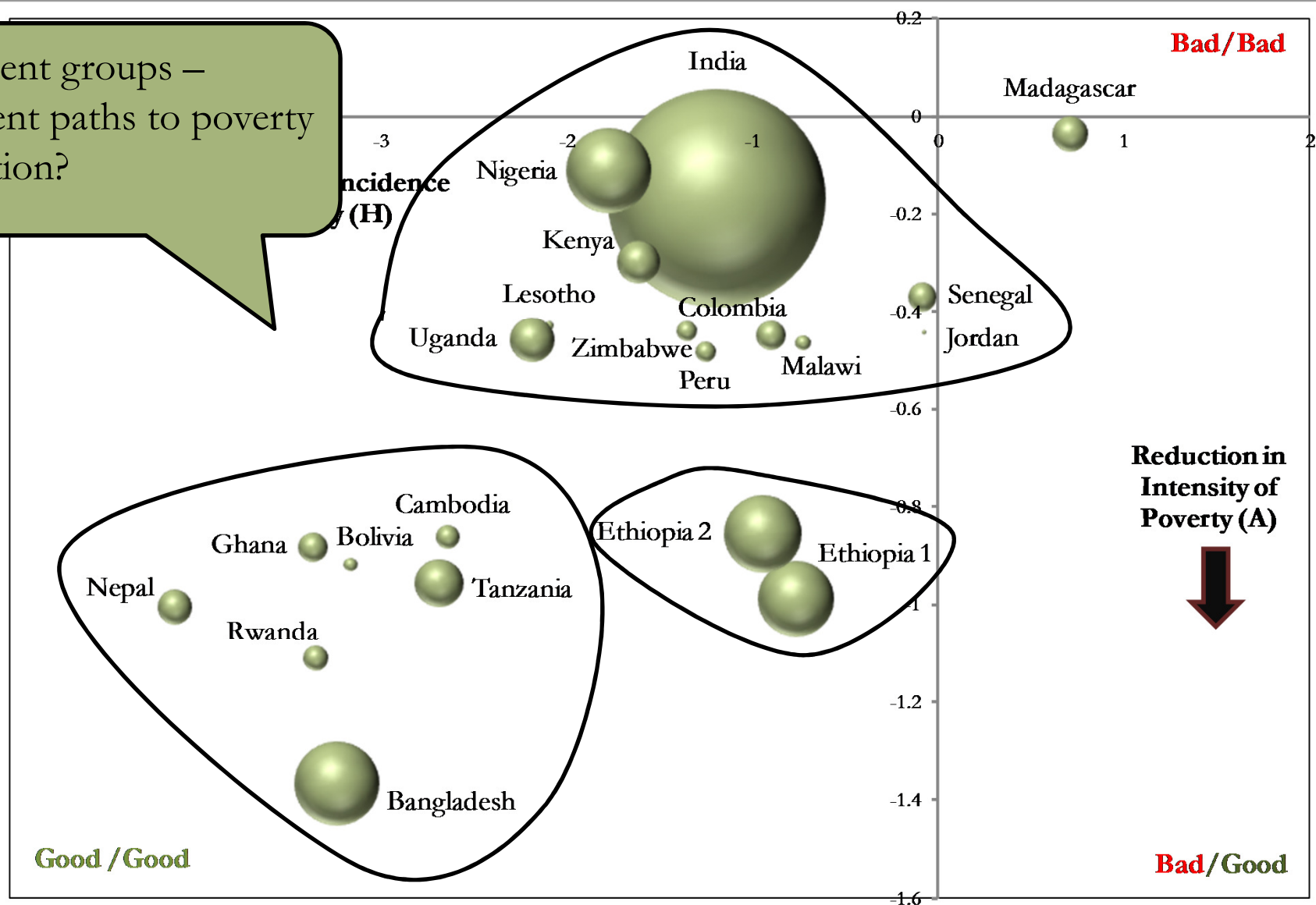
# Changes over time in MPI



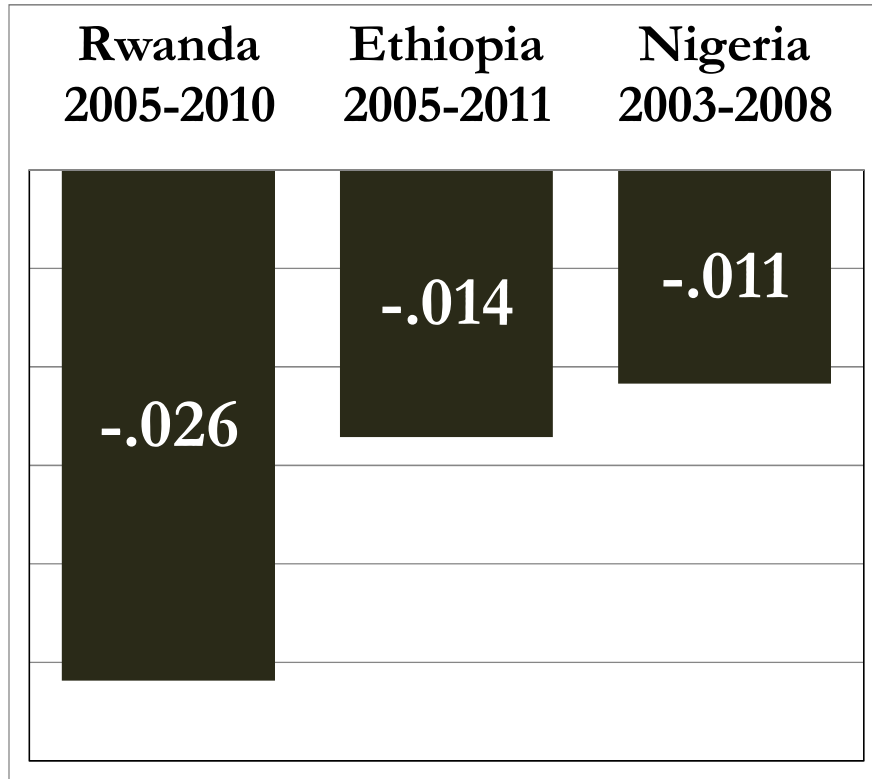
# Reducing incidence or intensity?

Different groups – different paths to poverty reduction?

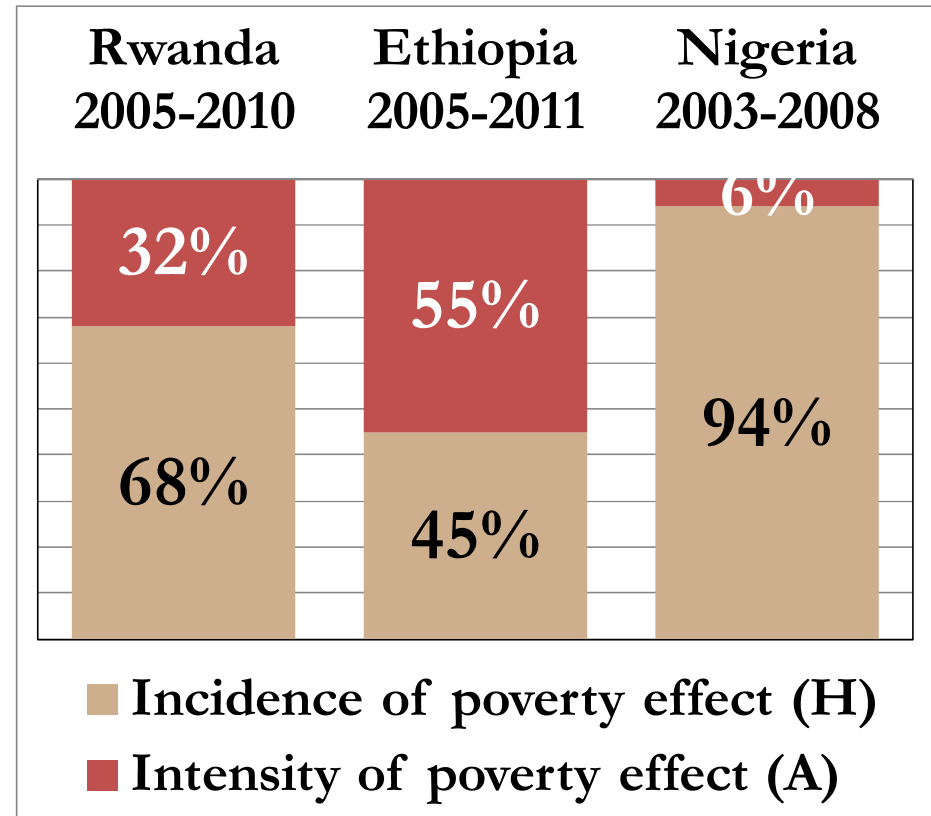
Annual Absolute Variation in Intensity of Poverty (A)



# MPI Reduction

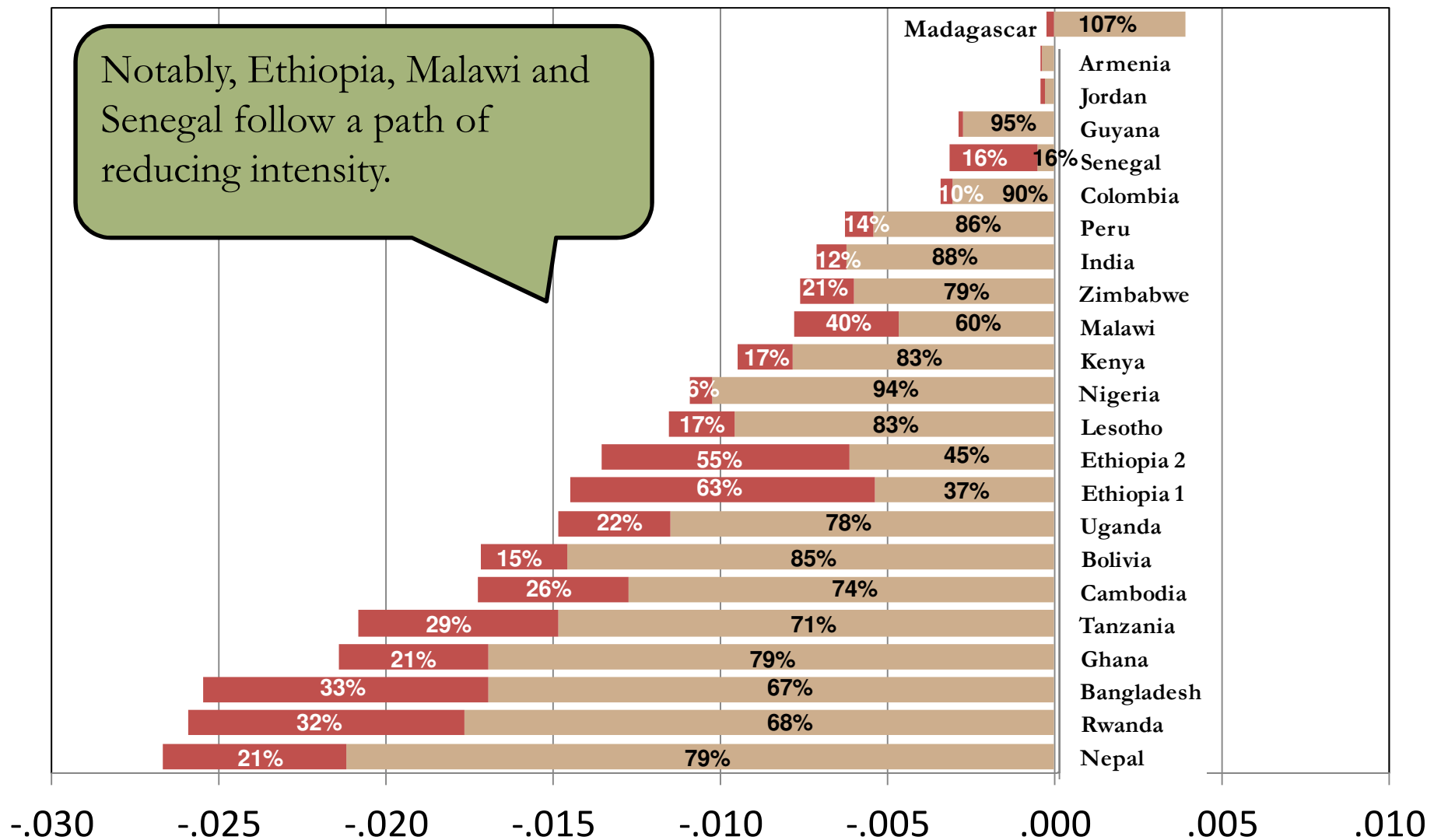


## Different path to poverty reduction



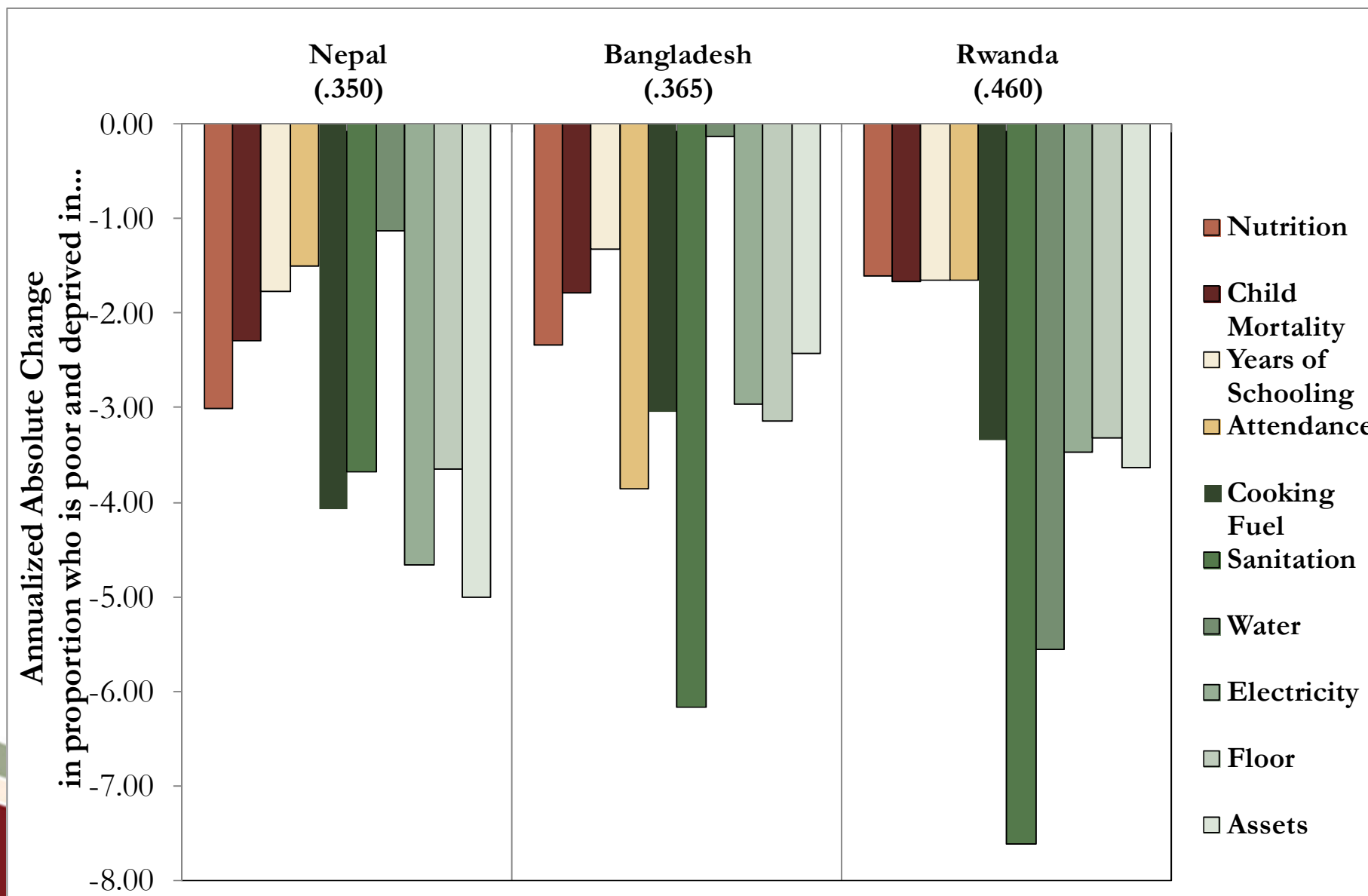
# Intensity and Incidence: both reduce MPI

Notably, Ethiopia, Malawi and Senegal follow a path of reducing intensity.

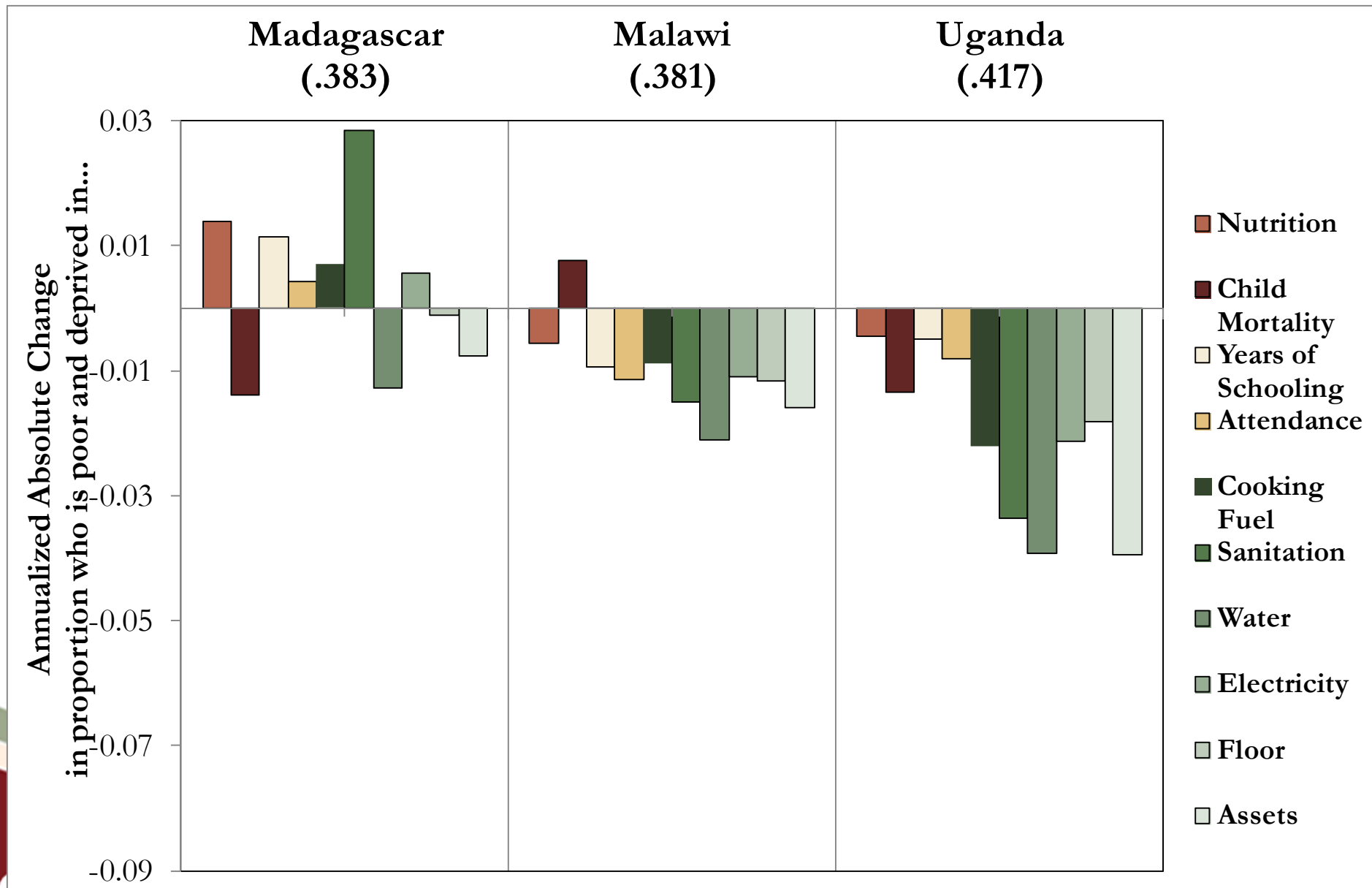


Annualized Absolute Variation in MPI

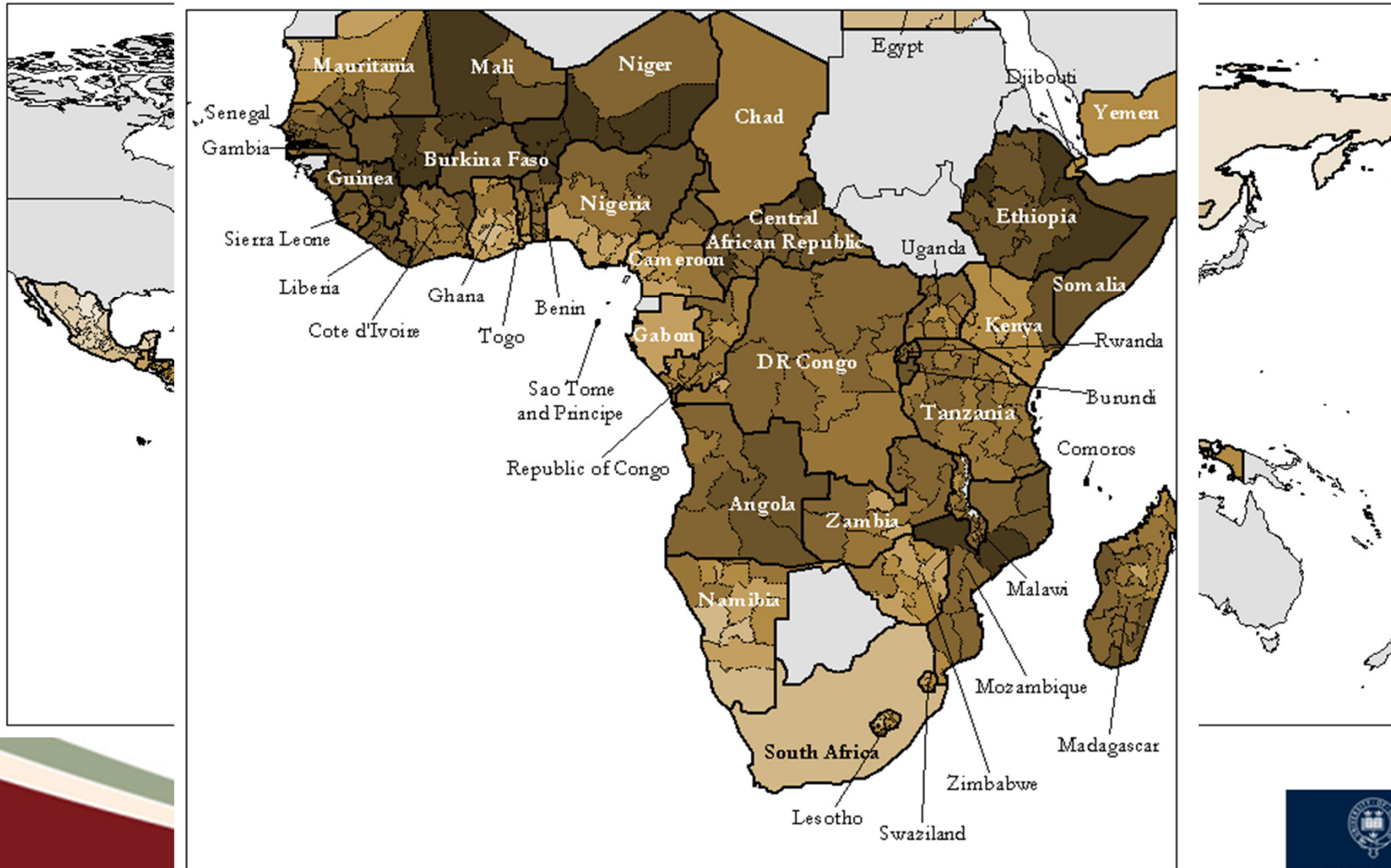
# How the best countries reduced MPI



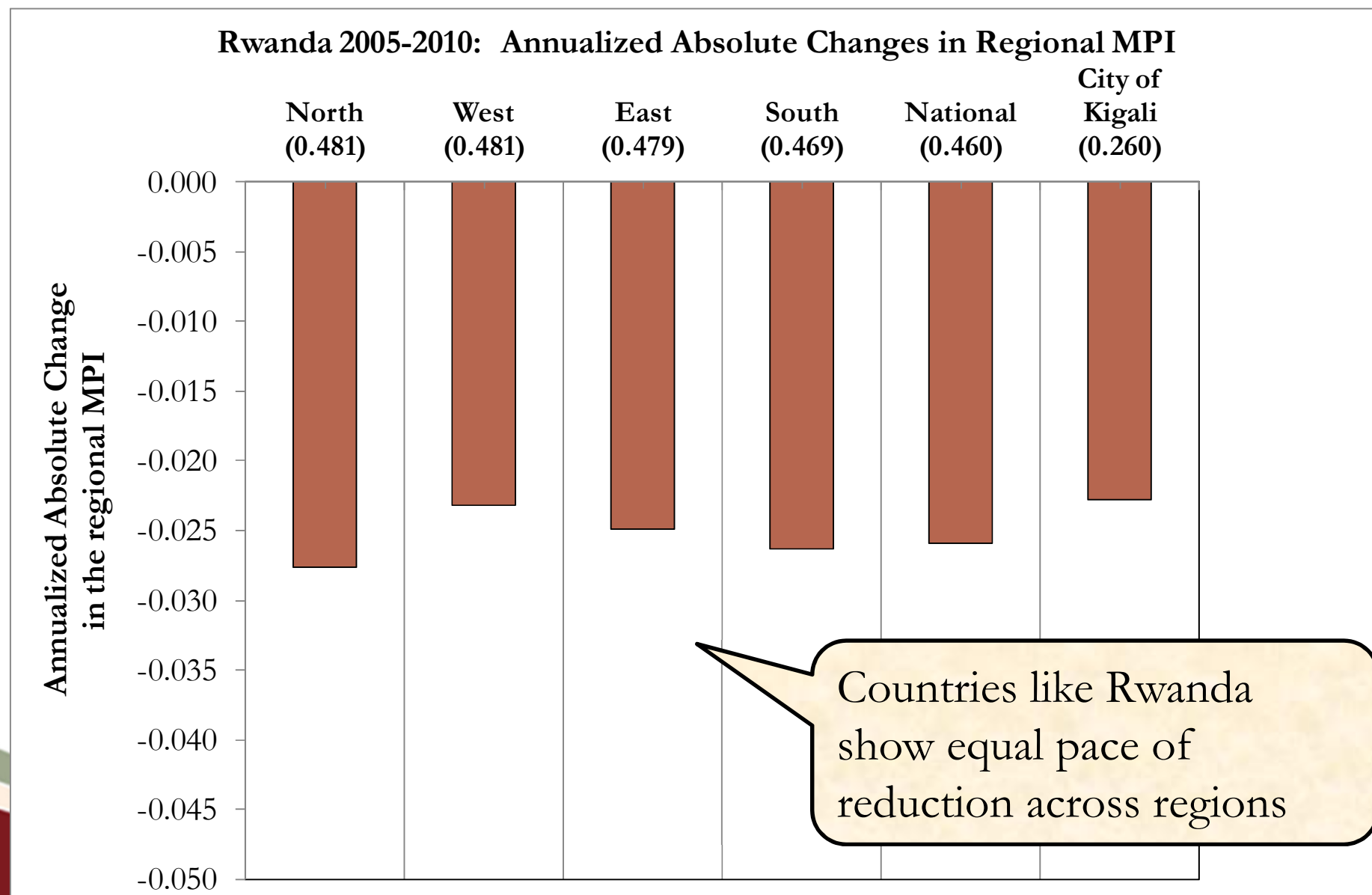
# Other reduction patterns



# “Leave no one behind” (HLP2015)



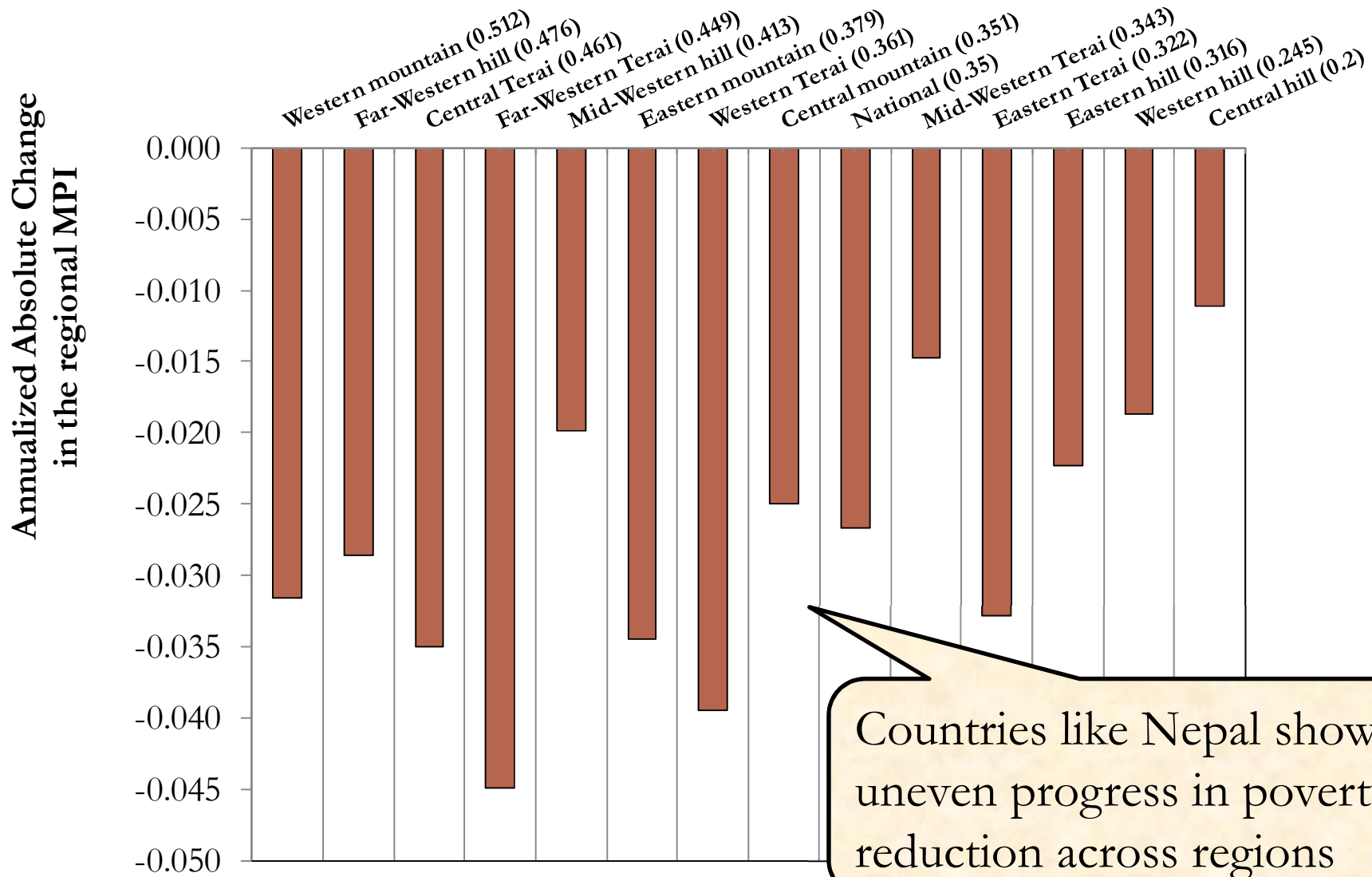
# Changes over time in Rwanda





# Changes over time in Nepal

Nepal 2006-2011: Annualized Absolute Changes in Regional MPI



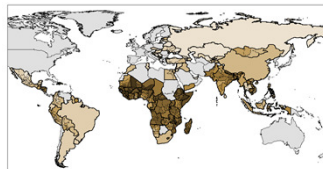
# MPI Data Bank: <http://www.ophi.org.uk/multidimensional-poverty-index/mpi-data-bank/>



**Web Tables :** 1) National results (104 countries); 2) Sub-national results (65); 3) Time comparison results (22)



**Country Profiles:** briefing with results, graphs and poverty maps for each country



**Poverty Maps:** 1) Interactive online Maps – StatPlanet; 2) Printable version – MapInfo/PDF



# India 1999-2006: Exploring changes by groups

# Datasets and Indicators

Two rounds of Demographic Health Surveys (DHS)

- DHS 1998-99
- DHS 2005-06

Why not Indian National Sample Survey (NSS) data?

- It does not collect information on anthropometric indicators (e.g., Nutrition)

Minor adjustments were made for four indicators for strict comparability

- School Attendance, Child Mortality, Nutrition, Floor

# India's Change in MPI<sub>I</sub>

	1999	2006	Change
MPI <sub>I</sub>	0.300	0.251	-0.049*
Incidence (H)	56.8%	48.5%	-8.1%*
Intensity (A)	52.9%	51.7%	-1.2%*

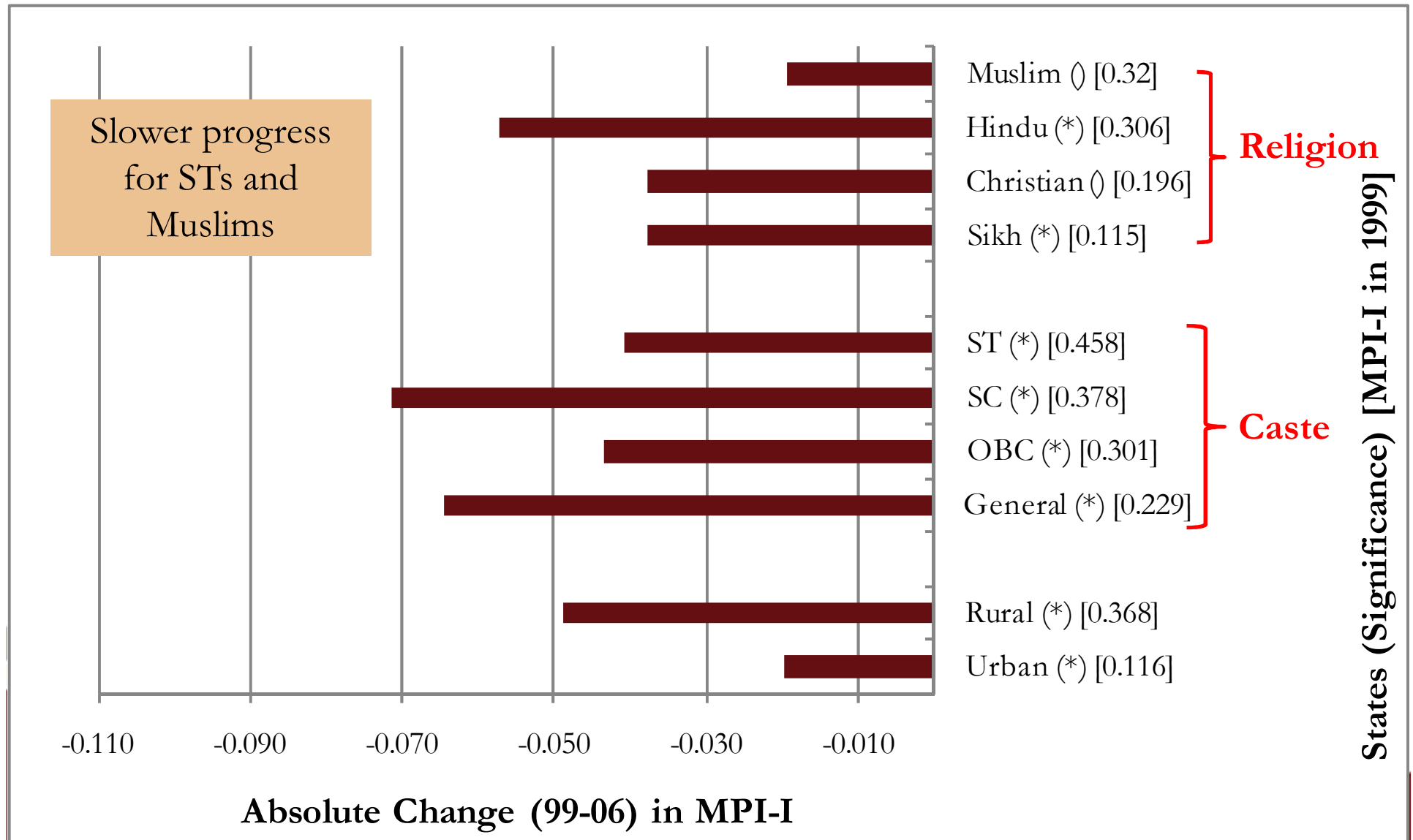
- MPI<sub>I</sub> (*Indian MPI*) fell significantly

Details in Alkire and Seth (2013)

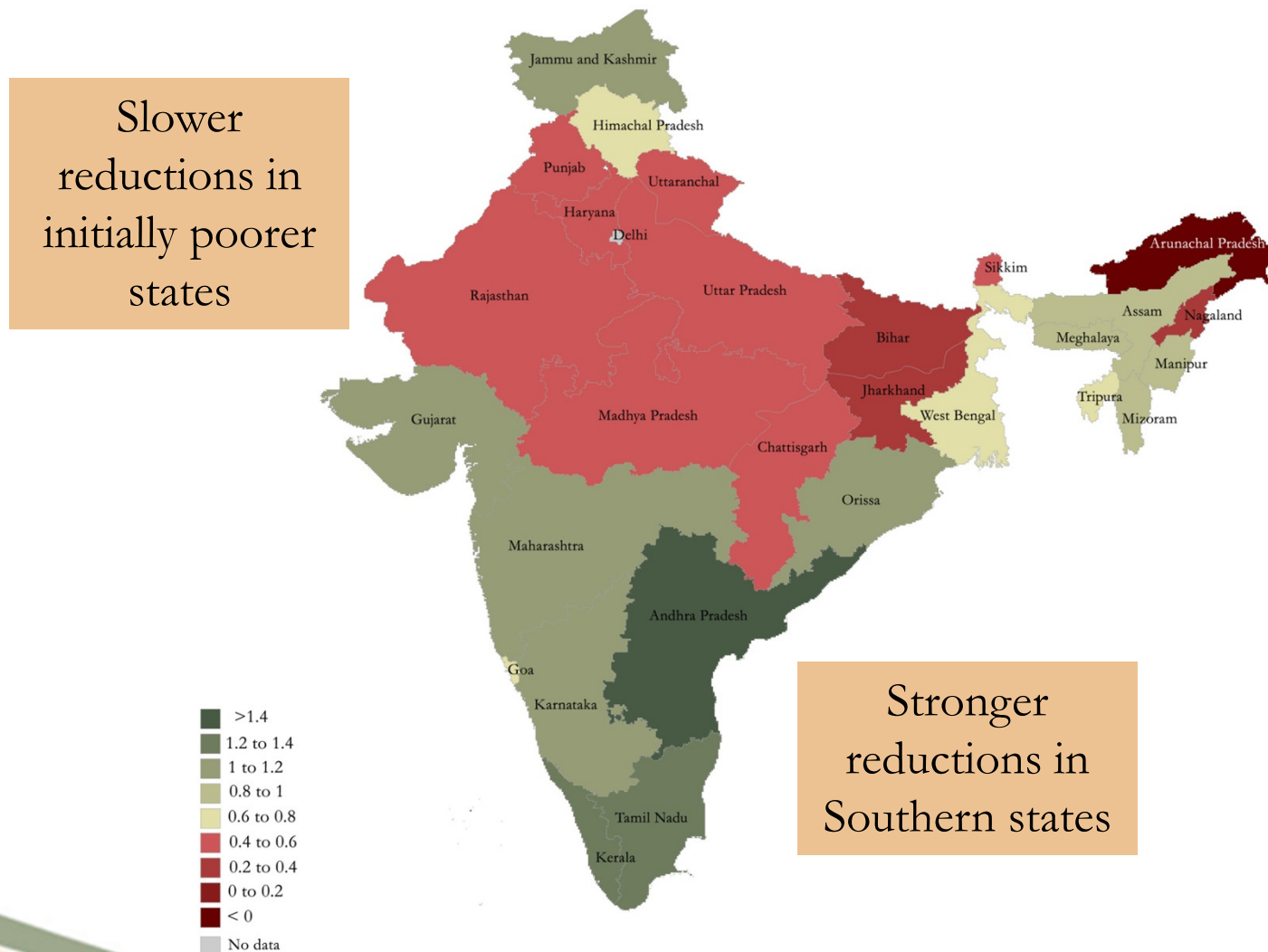
- *Per annum* reduction in incidence (H) was **larger** than the reduction in consumption expenditure headcount ratio between 1993/94 and 2004/05

(Tendulkar Committee Report 2009)

# Absolute Reduction in MPI<sub>I</sub>

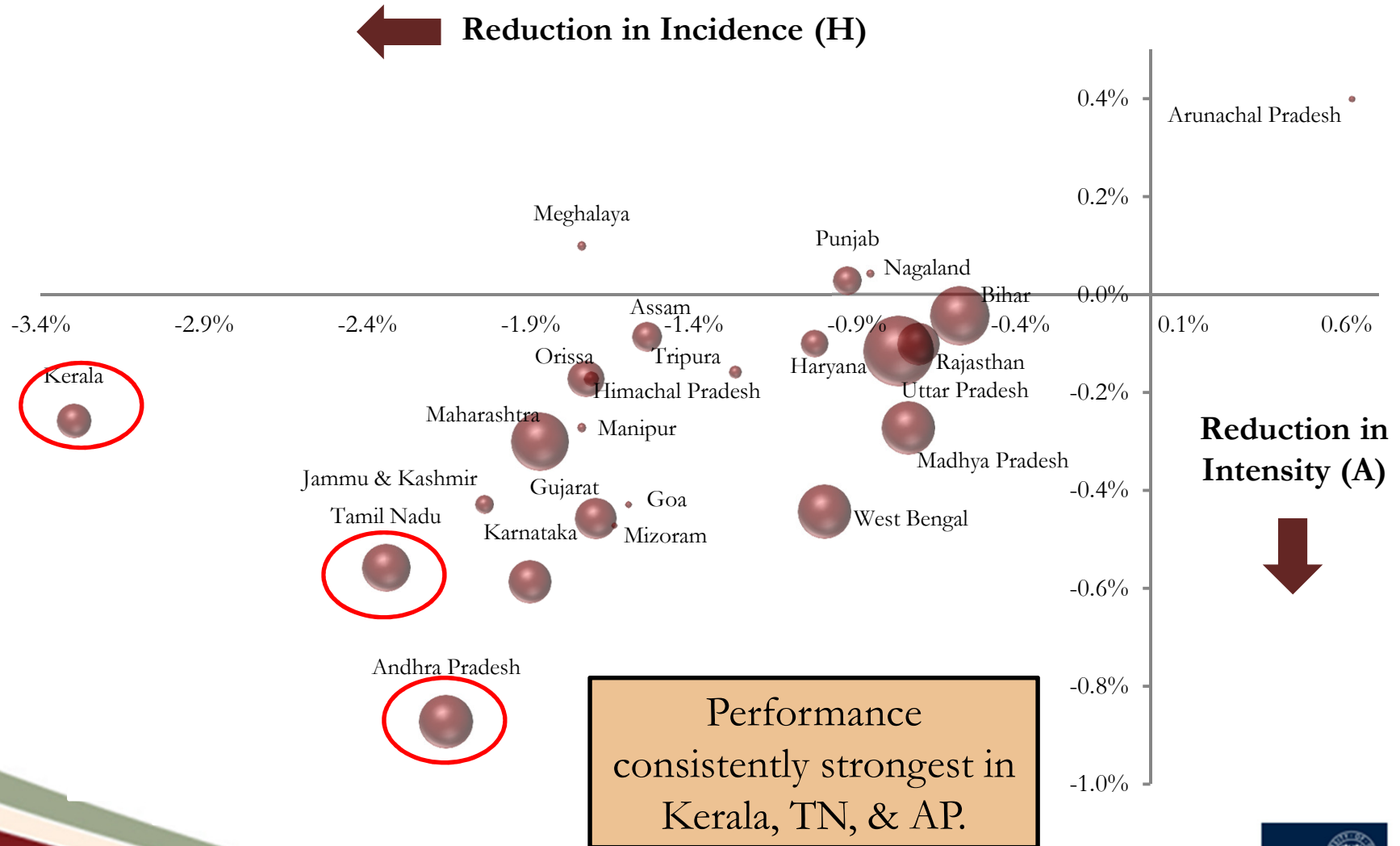


# Absolute Reduction in MPI<sub>I</sub> across States



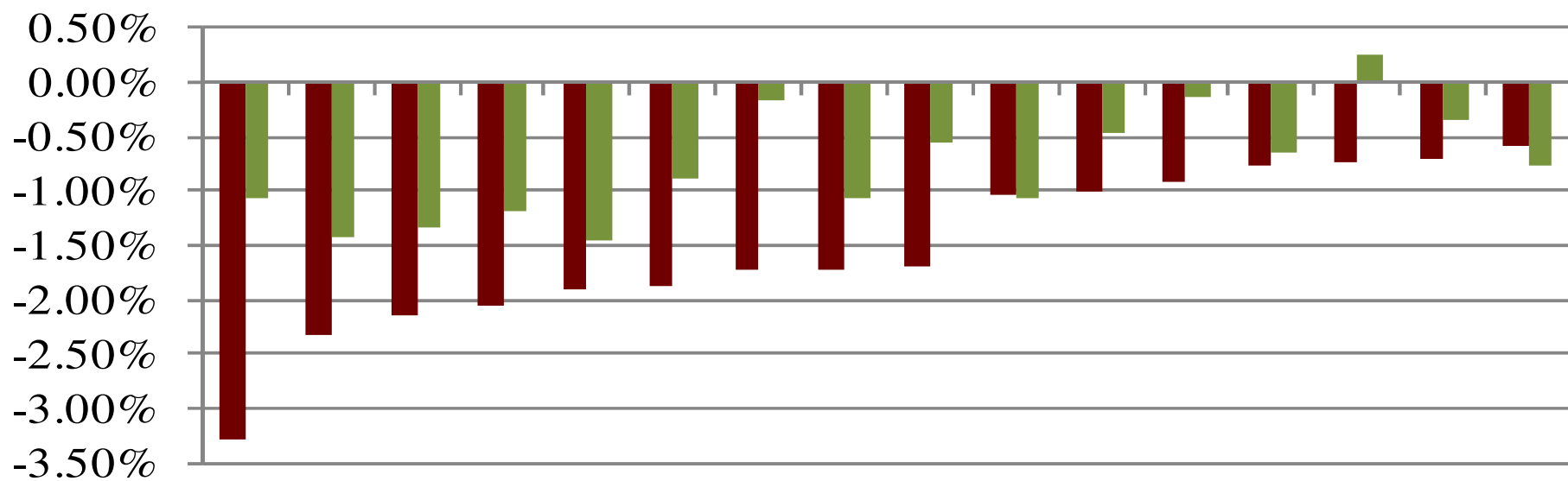
*We combined Bihar and Jharkhand, Madhya Pradesh and Chhattisgarh, and Uttar Pradesh and Uttarakhand*

# Improvement in Poverty: H or A?





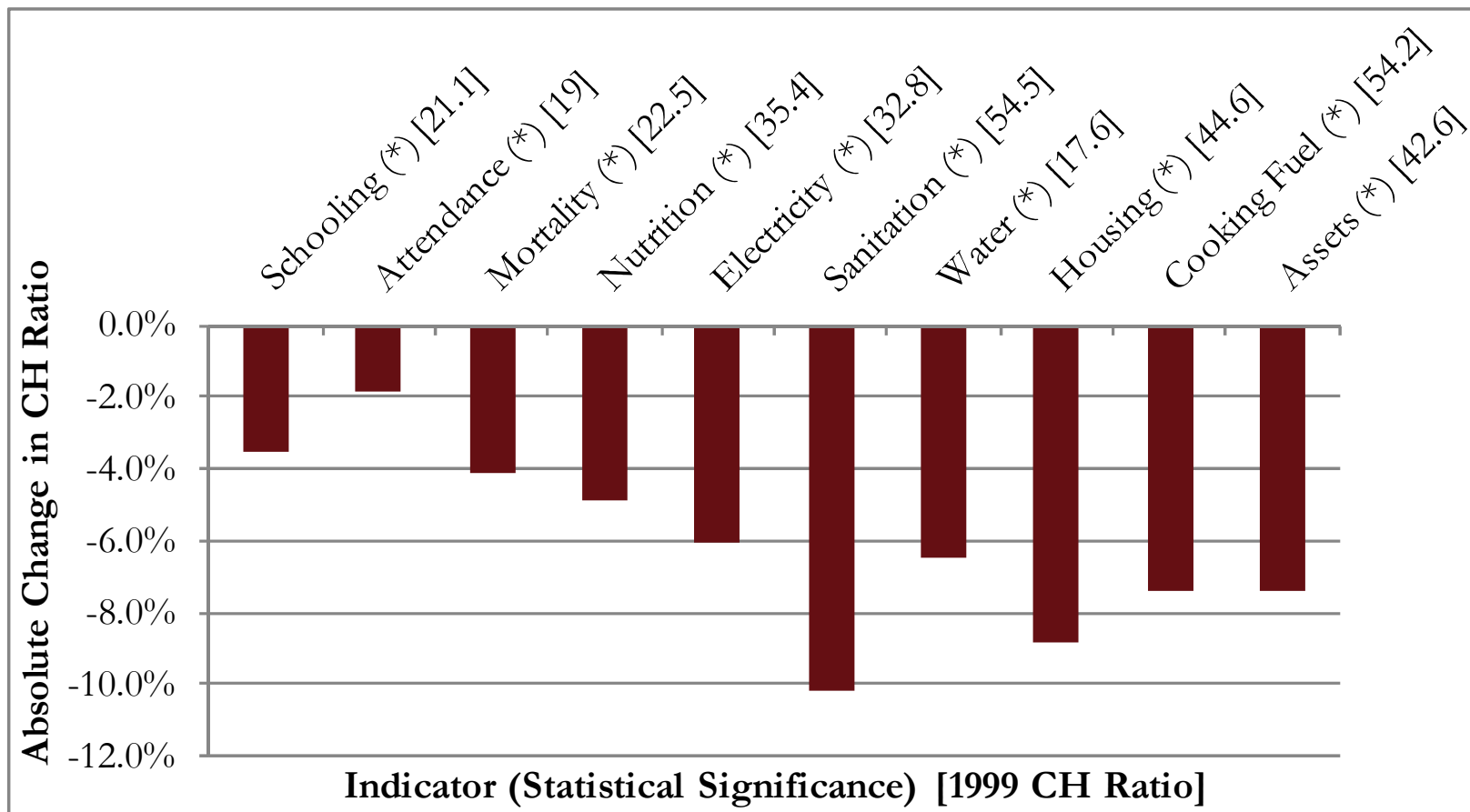
# Comparison between MD Headcount Ratio and Income Poverty Headcount Ratio (p.a.)



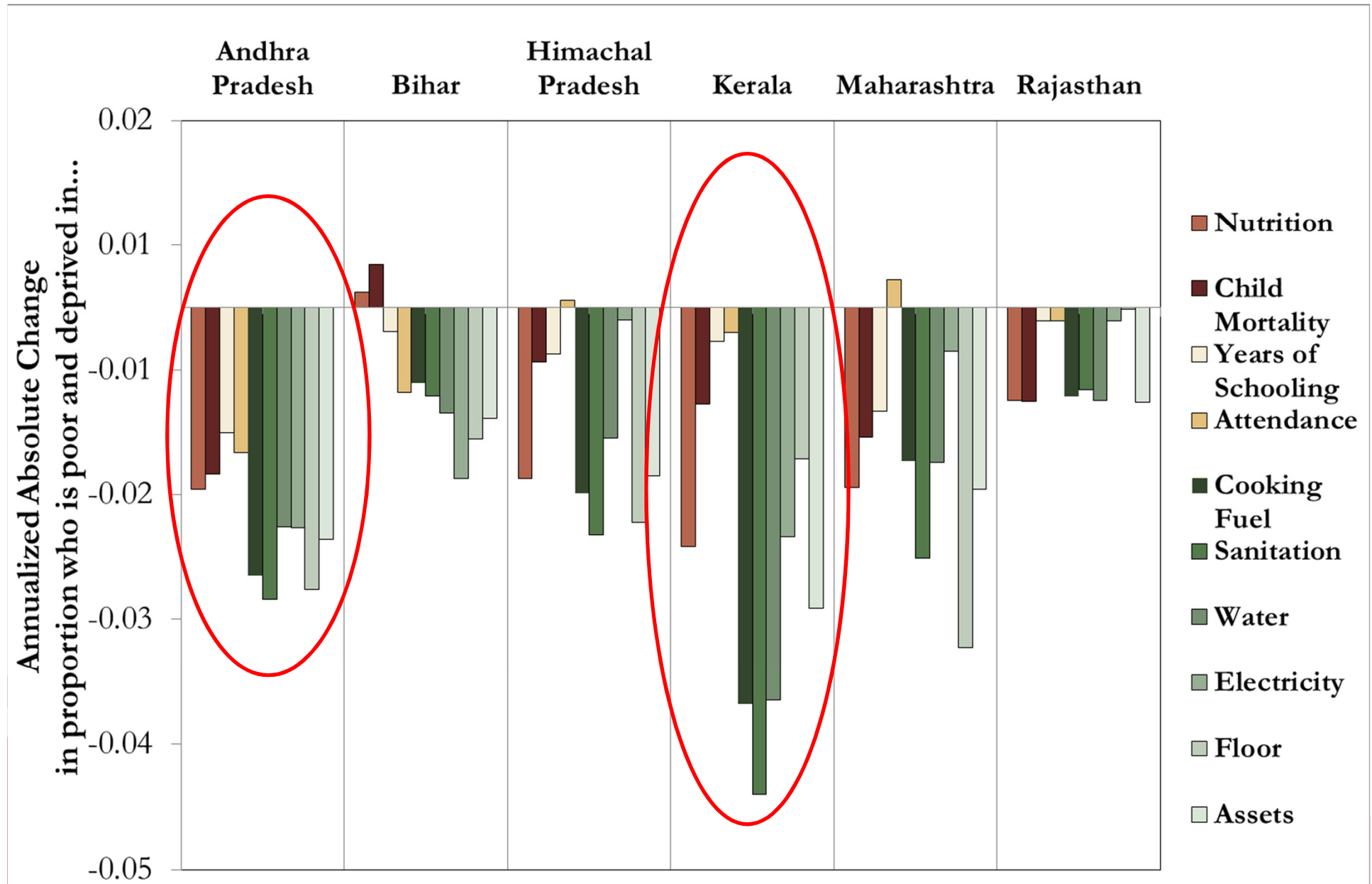
■ Change in MD Poverty (k = 1/3)

■ Change in PCE Poverty

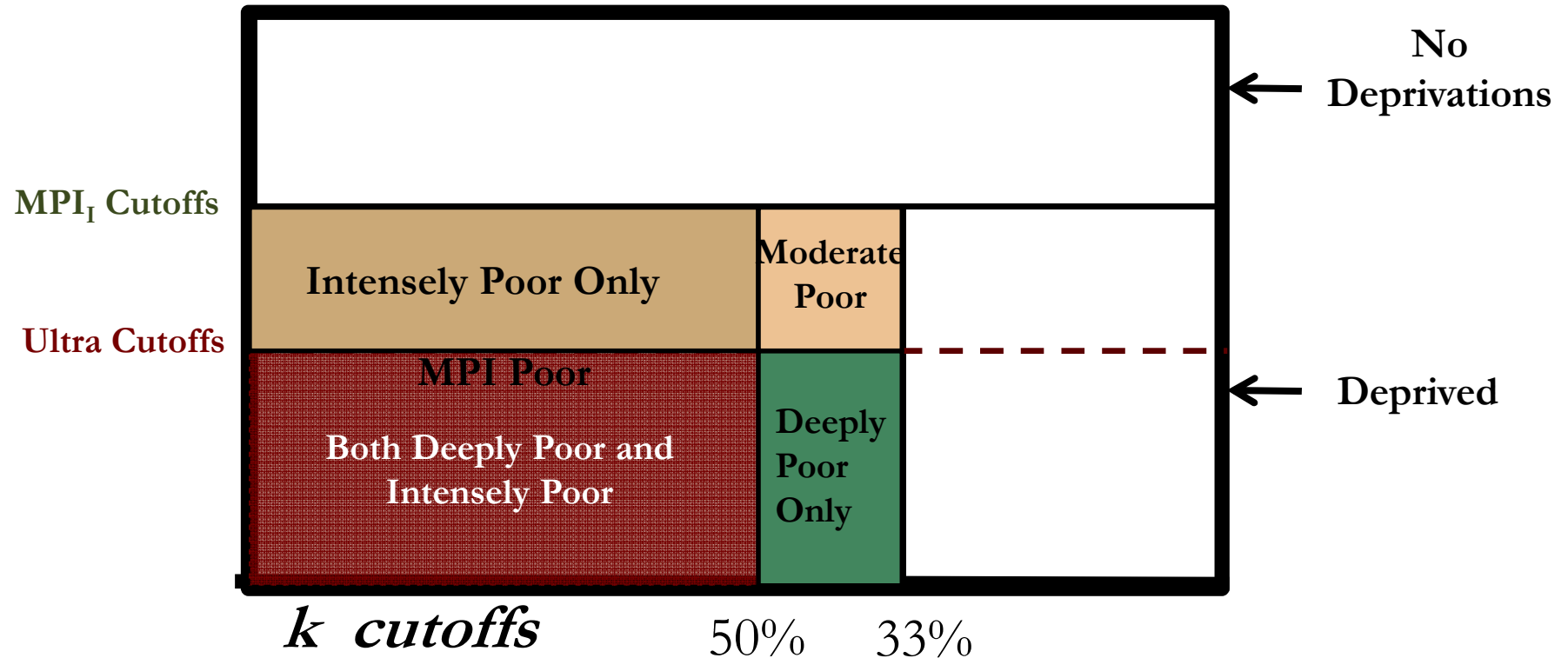
# How has $MPI_I$ Decreased Nationally?



# How has $MPI_I$ Decreased in Six States?



# Intense Poverty Vs. Deep Poverty



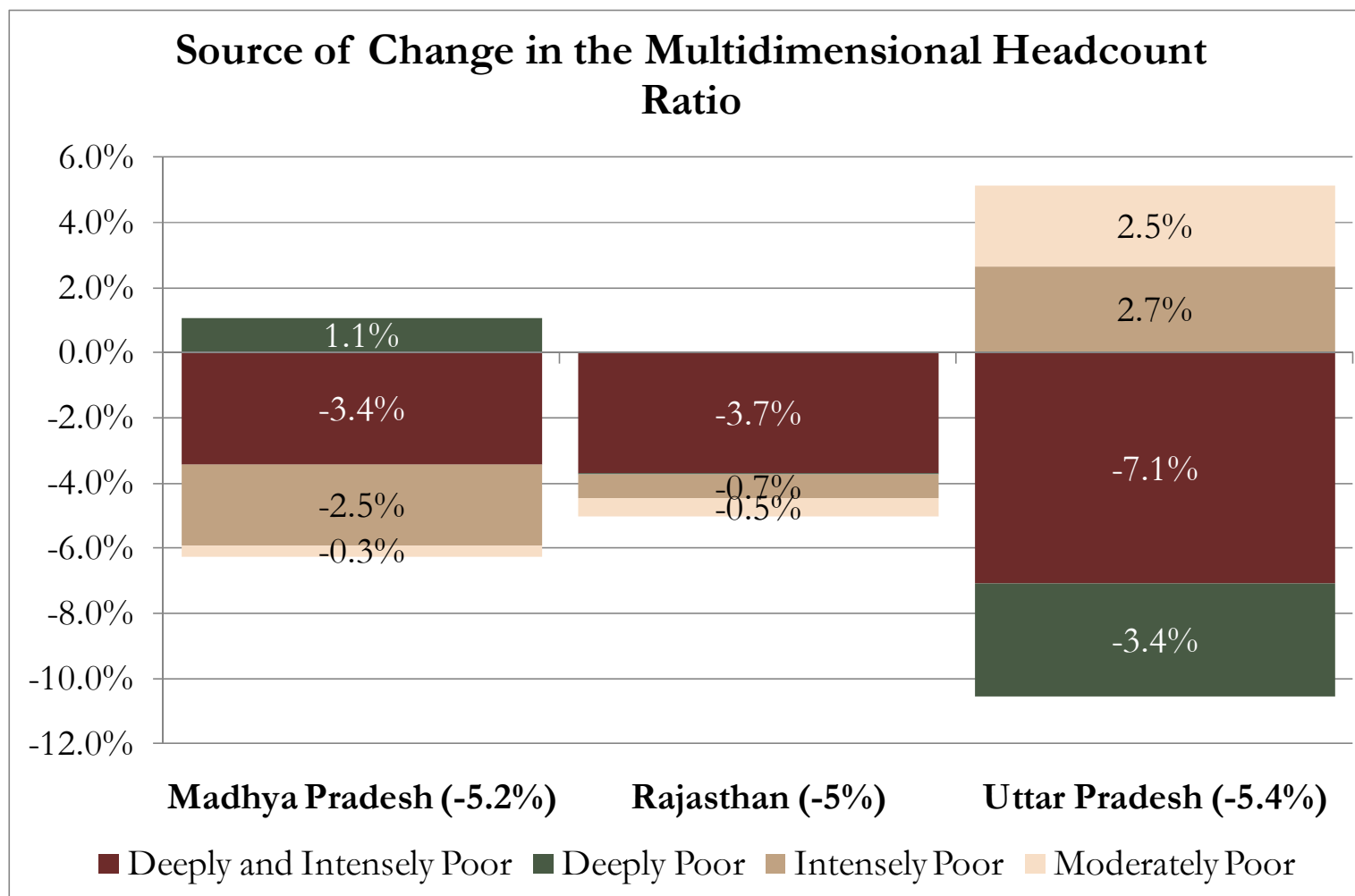
MPI Poor

↓15%

Deeply & Intensely Poor

↓28%

# Similar Reductions in H but Different Trajectories



Reduction in both intensely and deeply poor is larger in **UP**

# Positive Aspects

- Reduction in MD incidence p.a. is **larger** than income poverty reduction p.a.
- Reduction has been **larger in rural** than urban areas
- Reduction has been largest among **Scheduled Castes**
- Reduction in multidimensional poverty has been larger among those with higher intensity and deeper poverty.

# Concerns

- Slower progress among poorest groups
  - Scheduled tribes,
  - Muslims,
  - Large households,
  - Poor states
- No significant reduction in poverty for female headed households
- India's progress vis-a-vis Nepal and Bangladesh

# Data needs for a national MPI

- MPI: Uses 39 of 625 questions in DHS.
- **Mexico:**
  - specially designed survey, every 2 years
  - Linked questions in census enable local analyses
  - Some questions on quarterly labour force survey
- **Colombia:**
  - Used existing survey, implemented for 10 years
  - Indicators reflect national plan targets
  - Annual updates
  - Linked targeting instrument