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OXFORD POVERTY & HUMAN DEVELOPMENT INITIATIVE

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Multidimensional Poverty

Motivation

"We are almost blind when the metrics on which action is based are ill-designed or when they are not well understood"

Why such interest?

Overview "While assessing quality-of-life requires a plurality of indicators, there are strong demands to develop **a single summary measure**." *Stiglitz Sen Fitoussi Commission Report*

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

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

Visibility Track progress towards national plan; M&E.

Feasibility Surveys; measure deprivations directly; computations

Why Multidimensional Poverty Measures?

- Income poverty does not show health or education or social deprivations, nor does its reduction reduce them.
- Multidimensional poverty measures **complement** income poverty measures, both globally and nationally.

Income poverty does not proxy material deprivations in Europe

Table 6 Distribution across combined income poverty and deprivation persistence variable by country

	Neither persistently income poor nor deprived	Persistently income poor only	Persistently deprived only	Persistently income poor and deprived
Denmark	82.8	6.9	8.9	1.4
The Netherlands	78.8	7.1	7.3	6.8
Belgium	73.0	9.3	8.8	8.9
France	70.8	11.6	8.5	9.0
Ireland	64.8	11.4	9.7	14.0
Italy	68.8	9.2	11.3	10.7
Greece	68.8	11.2	9.9	10.1
Spain	72.7	9.2	8.7	9.4
Portugal	64.5	12.0	11.3	12.2
All	70.7	10.4	9.2	9.7

Source: Whelan Layte Maitre 2004 Understanding the Mismatch between Income Poverty & Deprivation

In Europe, while 20% of people are persistently income poor, and 20% are persistently materially deprived, <u>ONLY 10% of people are BOTH</u> persistently income poor and <u>materially</u> deprived.

This observation motivated the move in Europe to a multidimensional poverty measure EU 2020. Income doesn't tell the full story – even of material deprivation in industrial economies

ne poverty and deprivation persistence variable by country

tently nor	Persistently income poor only	Persistently deprived only	Persistently income poor and deprived
	6.9	8.9	1.4
	7.1	7.3	6.8
	9.3	8.8	8.9
	11.6	8.5	9.0
	11.4	9.7	14.0
	9.2	11.3	10.7
	11.2	9.9	10.1
	9.2	8.7	9.4
	12.0	11.3	12.2
	10.4	9.2	9.7

Source: Whelan Layte Maitre 2004 Understanding the Mismatch between Income Poverty & Deprivation

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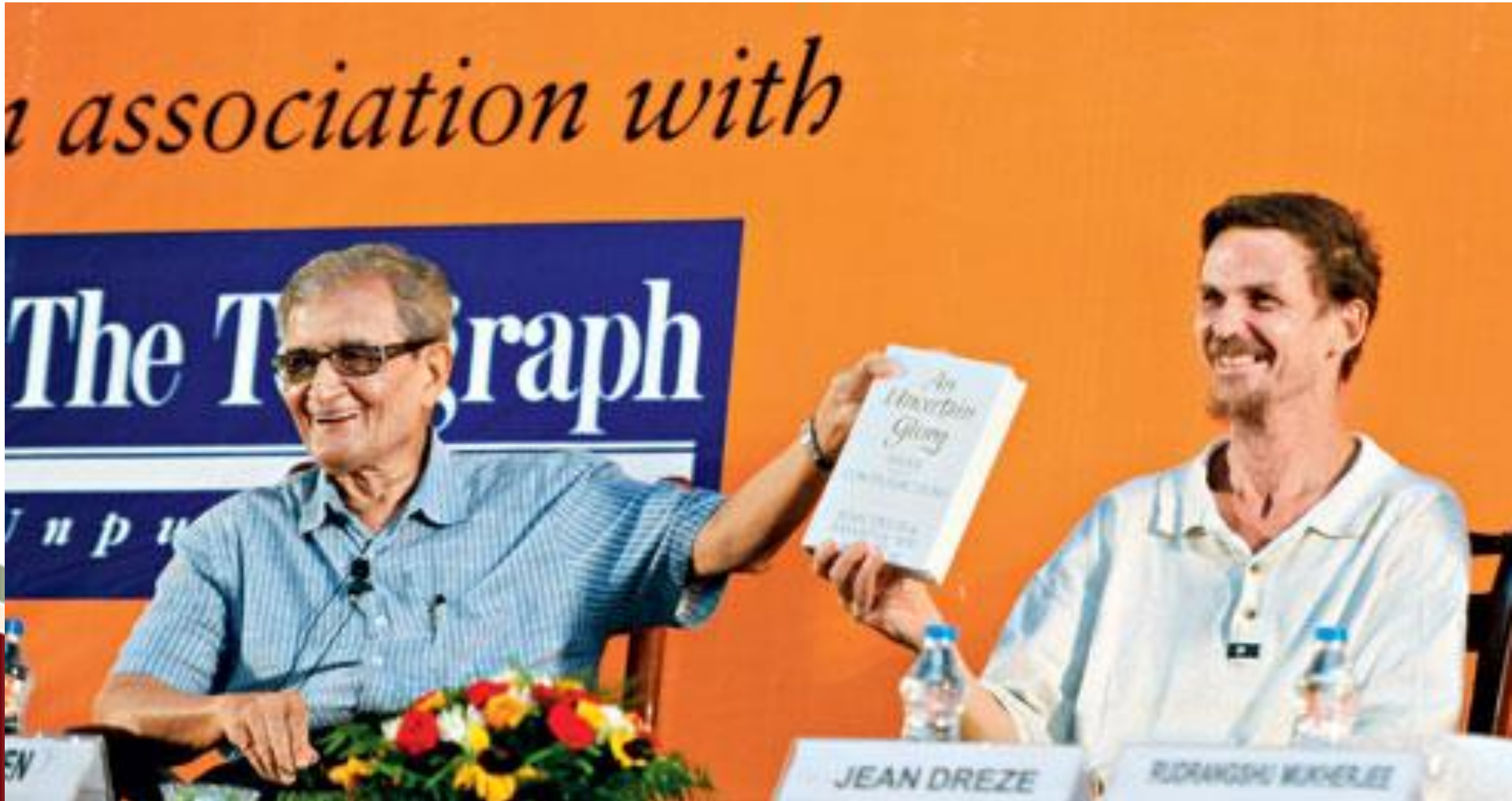
Growth may not reduce MP

François Bourguignon, Agnès Bénassy-Quéré, Stefan Dercon, Antonio Estache, Jan Willem Gunning, Ravi Kanbur, Stephan Klasen, Simon Maxwell, Jean-Philippe Platteau, Amedeo Spadaro

'The correlation between GDP per capita growth and non-income MDGs is practically zero…'

Growth? Necessary but Insufficient.

India: strong economic growth since 1980s.



Growth? Insufficient.

1998-9 NHFS-2: **47%** children under 3 were undernourished

2005-6 NHFS-3: **46%** were undernourished (wt-age)

MEASURING MULTIDIMENSIONAL POVERTY

Alkire Foster Method

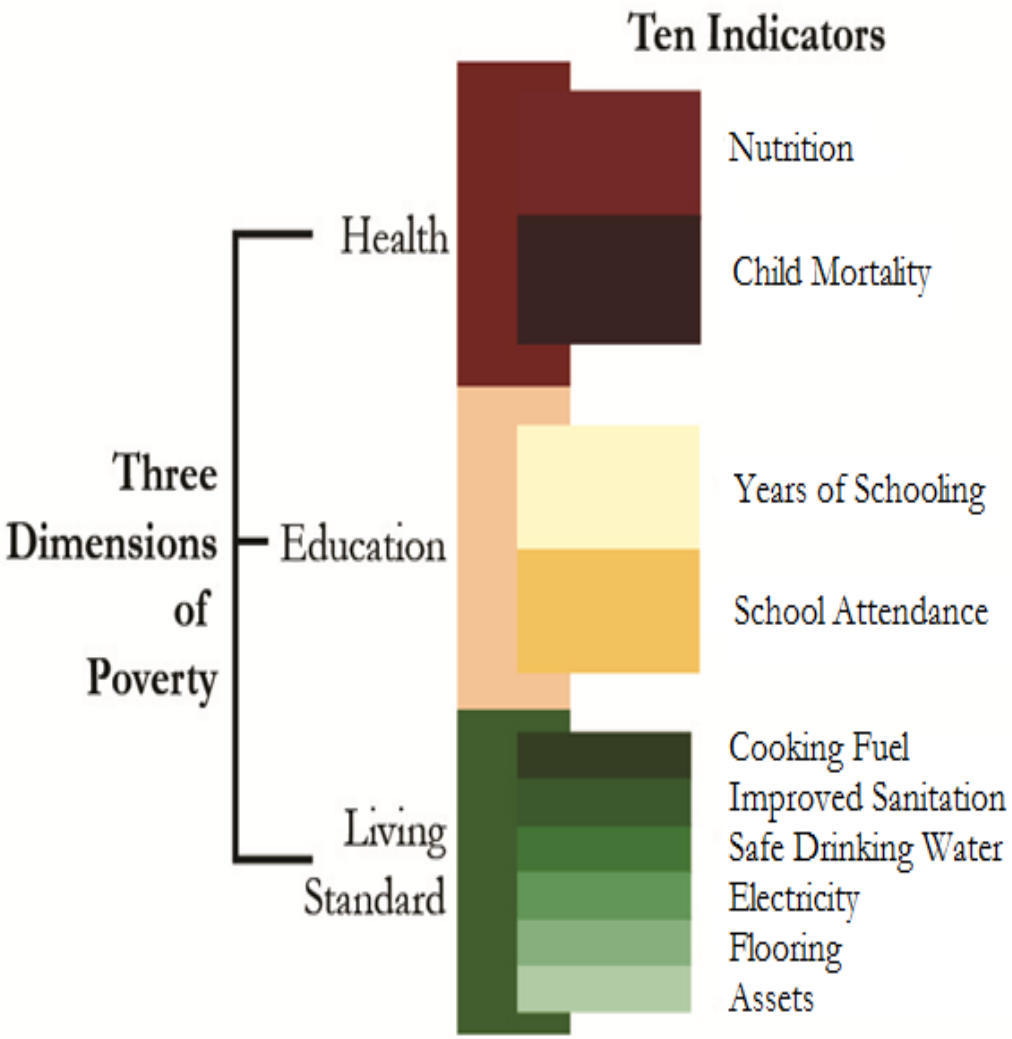
Multidimensional Poverty- the challenge:

- A government would like to create an official multidimensional poverty indicator
- Desiderata
  - It must understandable and easy to describe
  - It must conform to "common sense" notions of poverty
  - It must be able to target the poor, track changes, and guide policy.
  - It must be technically solid
  - It must be operationally viable
  - It must be easily replicable

Practical Steps

- **Select**
  - Purpose of the index (monitor, target, etc)
  - Unit of Analysis (indv, hh, cty)
  - Dimensions
  - Specific variables or indicators for each dimension
  - Whether variables or dimensions should be aggregated with others or left independent
  - Cutoff for each independent variable/dimension
  - Value of deprivation for each variable/dimension
  - **Identification method**
  - **Aggregation method**

Dimensions, Weights, Indicators

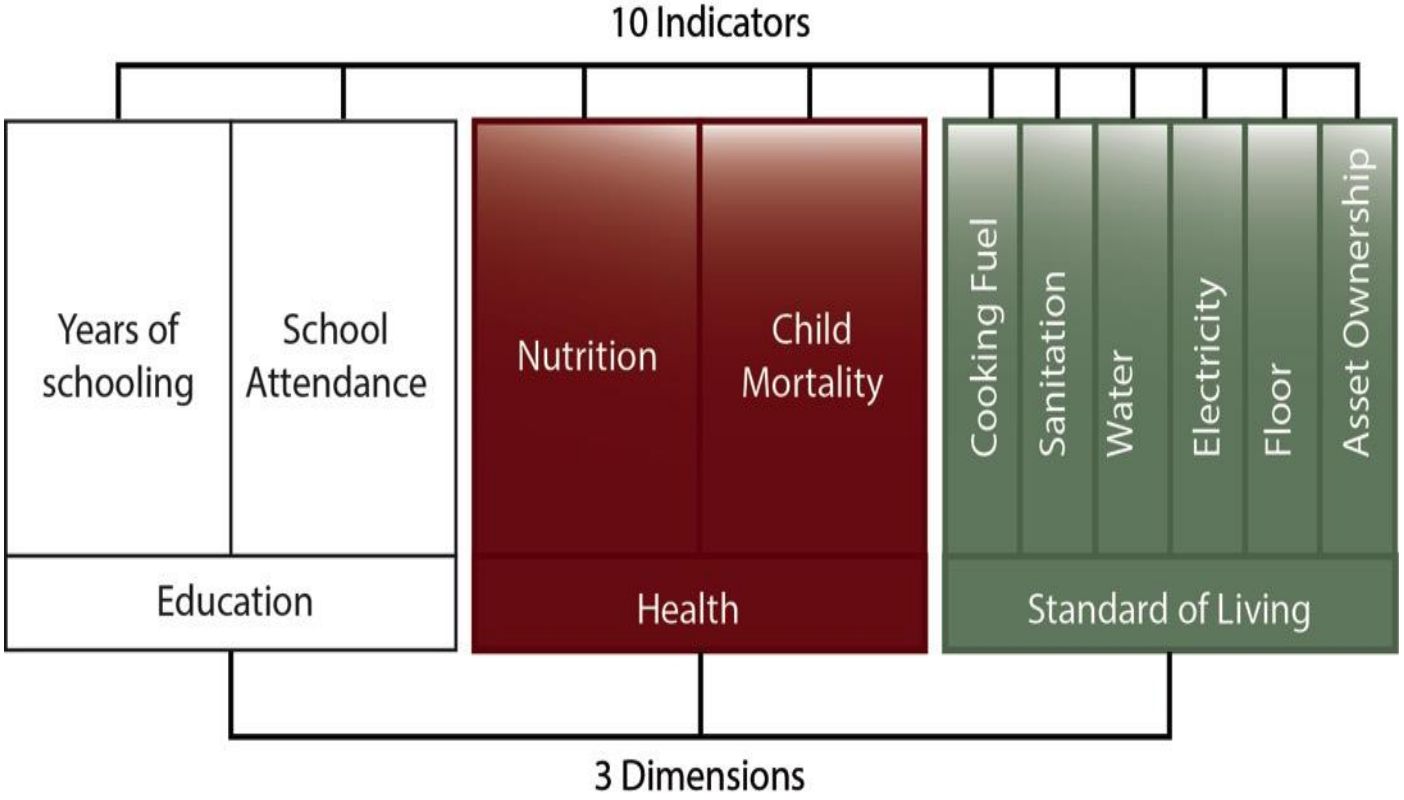


Person	Health	Education	Housing	Employment
Person 1	☺	☺	☺	✗
Person 2	✗	☺	☺	✗
Person 3	✗	✗	✗	☺
Person 4	✗	☺	☺	☺

Person	Health	Education	Housing	Employment
Person 1				
Person 2				
Person 3				
Person 4				

Build a Deprivation Score for Each Person

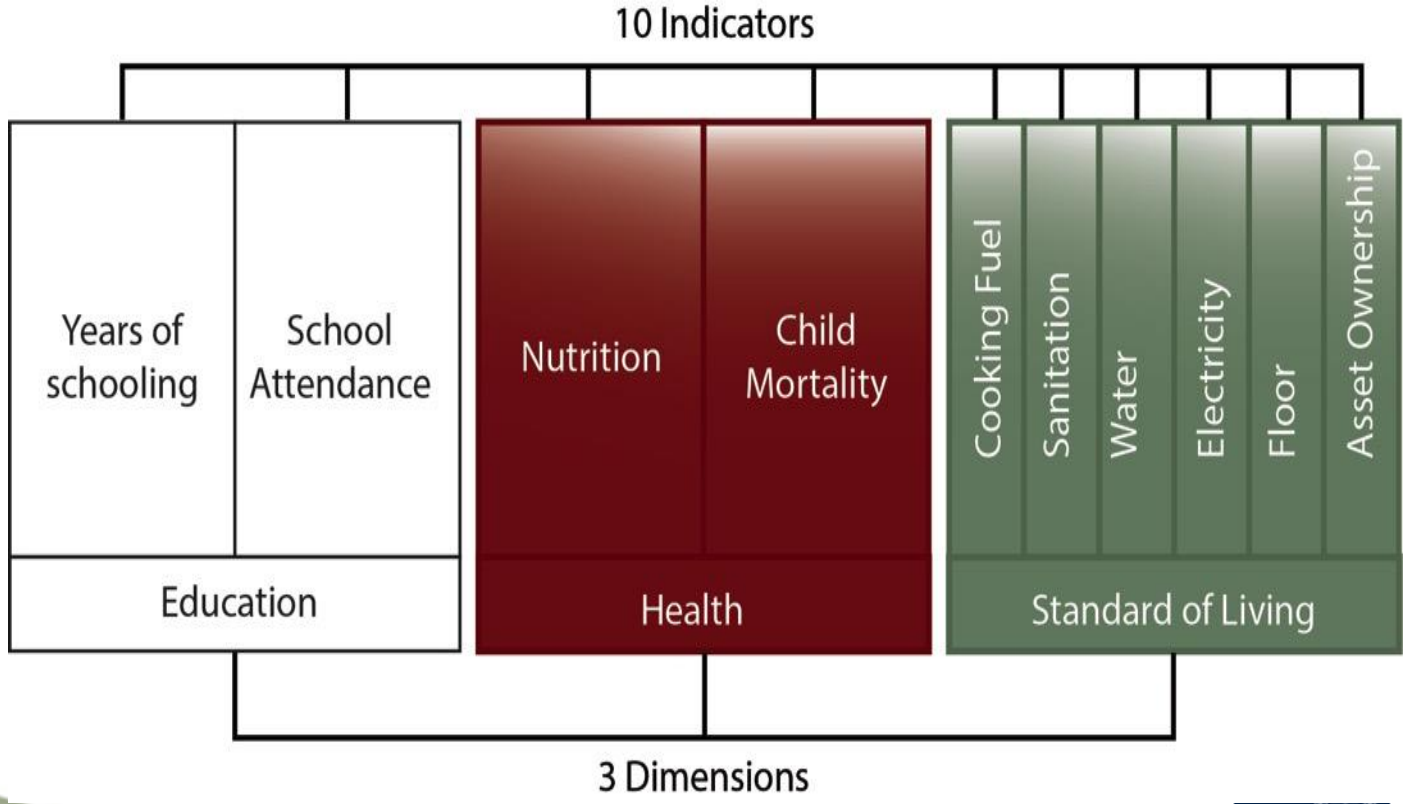
Nathalie, Cameroon



Who is Poor?

A person who is deprived in more than 1/3rd of the weighted indicators is **MPI poor**

Nathalie, Cameroon



Aggregation: Alkire & Foster

- Appropriate for Ordinal data -

The MPI is the product of two components:

$$MPI = H \times A$$

1) ***Incidence*** ~ the percentage of people who are poor, or the headcount ratio ***H***.

2) ***Intensity*** of people's deprivation ~ the average percentage of dimensions in which poor people are deprived ***A***.

From a Measure

to

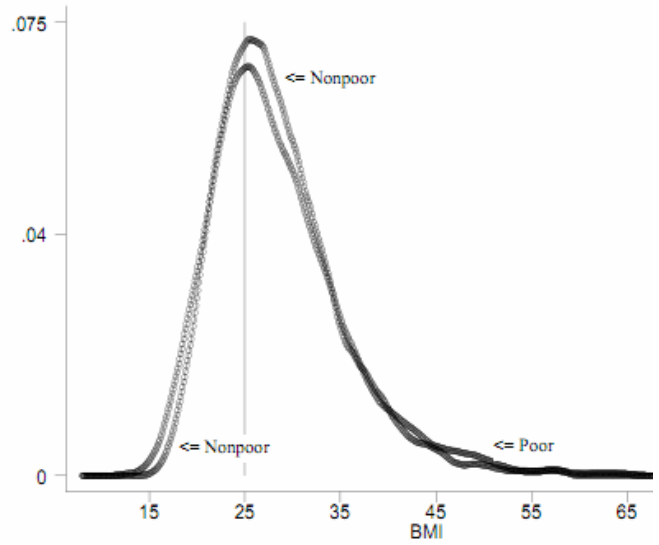
a Tool

Policy Interest – Why?

1. **Intuitive** – easy to understand headline
2. **Birds-eye view** - can be unpacked
    a. by region, ethnicity, rural/urban, etc
    b. by indicator, to show composition
    c. by 'intensity' to show inequality among poor
3. **Adds Value**:
    a. focuses on people with multiple deprivations
    b. shows people's simultaneous deprivations.
4. **Incentives** to reach the poorest of the poor
5. **Flexible** you choose indicators/cutoffs/values
6. **Robust** to wide range of weights and cutoffs
7. **Academically Rigorous** – axiomatic & empirical

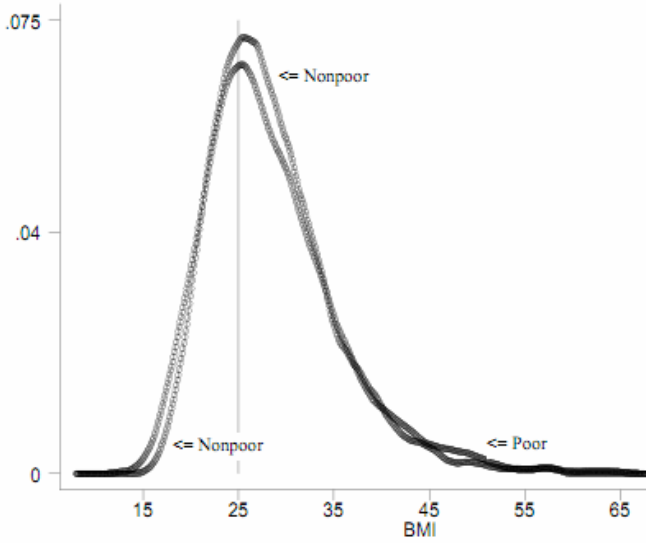
From a measure to a tool

An income poverty measure tells us *who* is income poor.



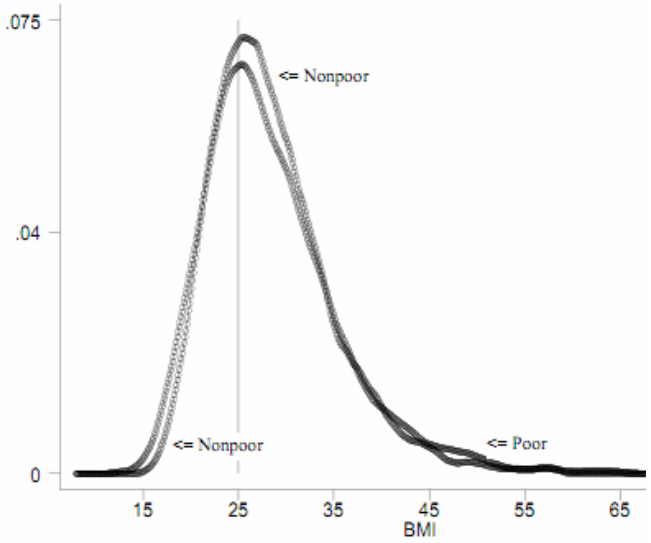
From a measure to a tool

The MPI headcount tells us *who* is multidimensionally poor.



From a measure to a management tool

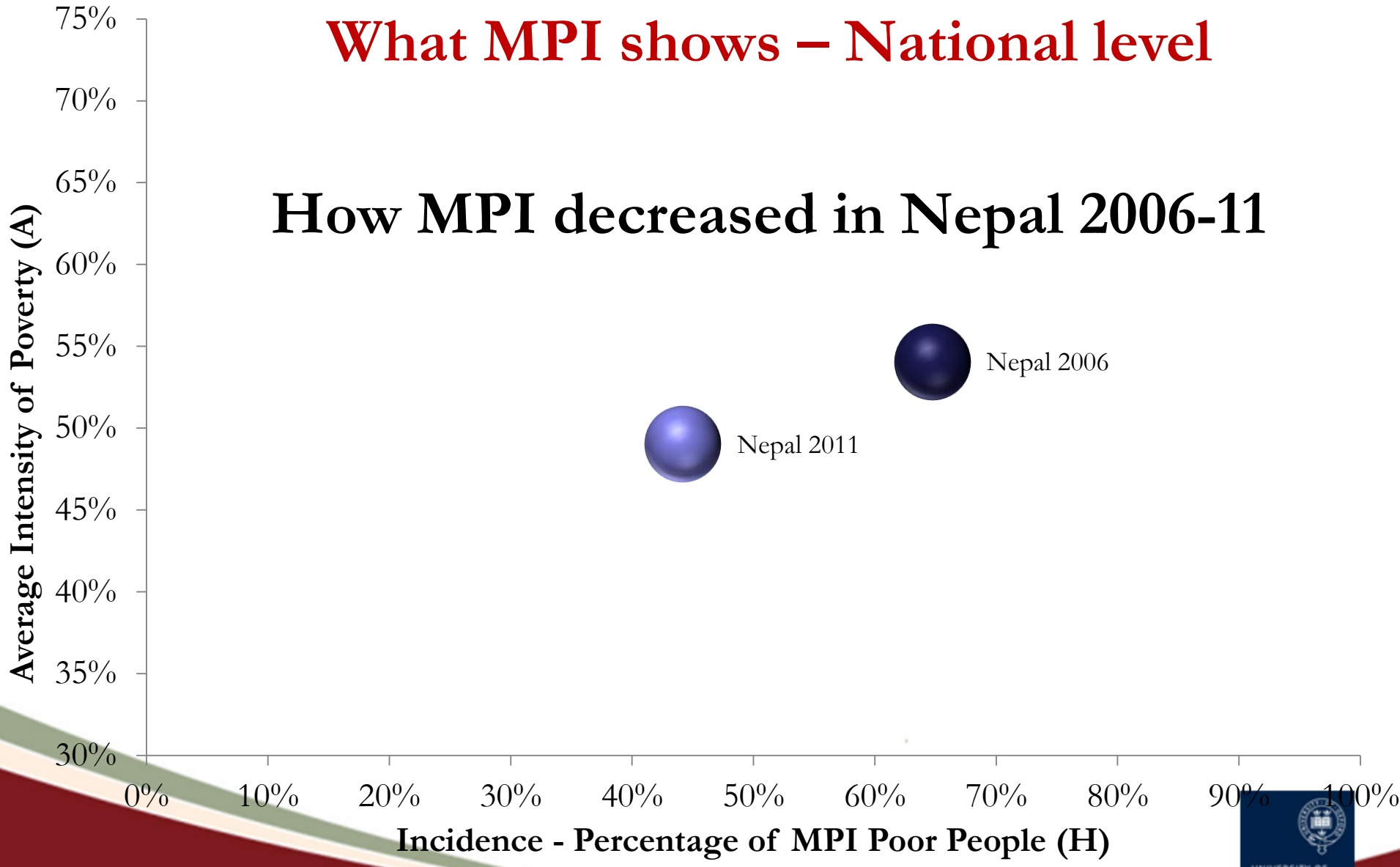
The MPI headcount tells us *who* is poor.

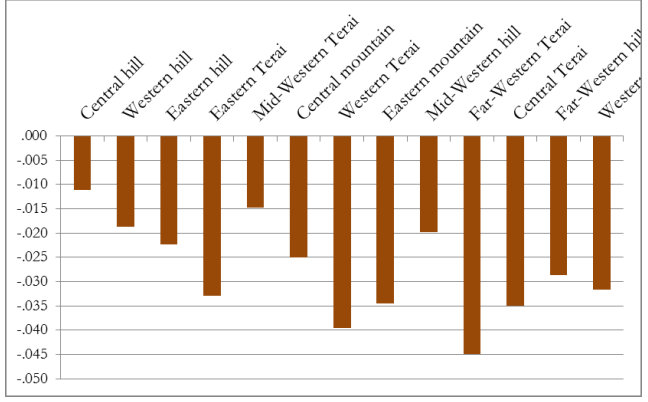


And adds *how* they are poor

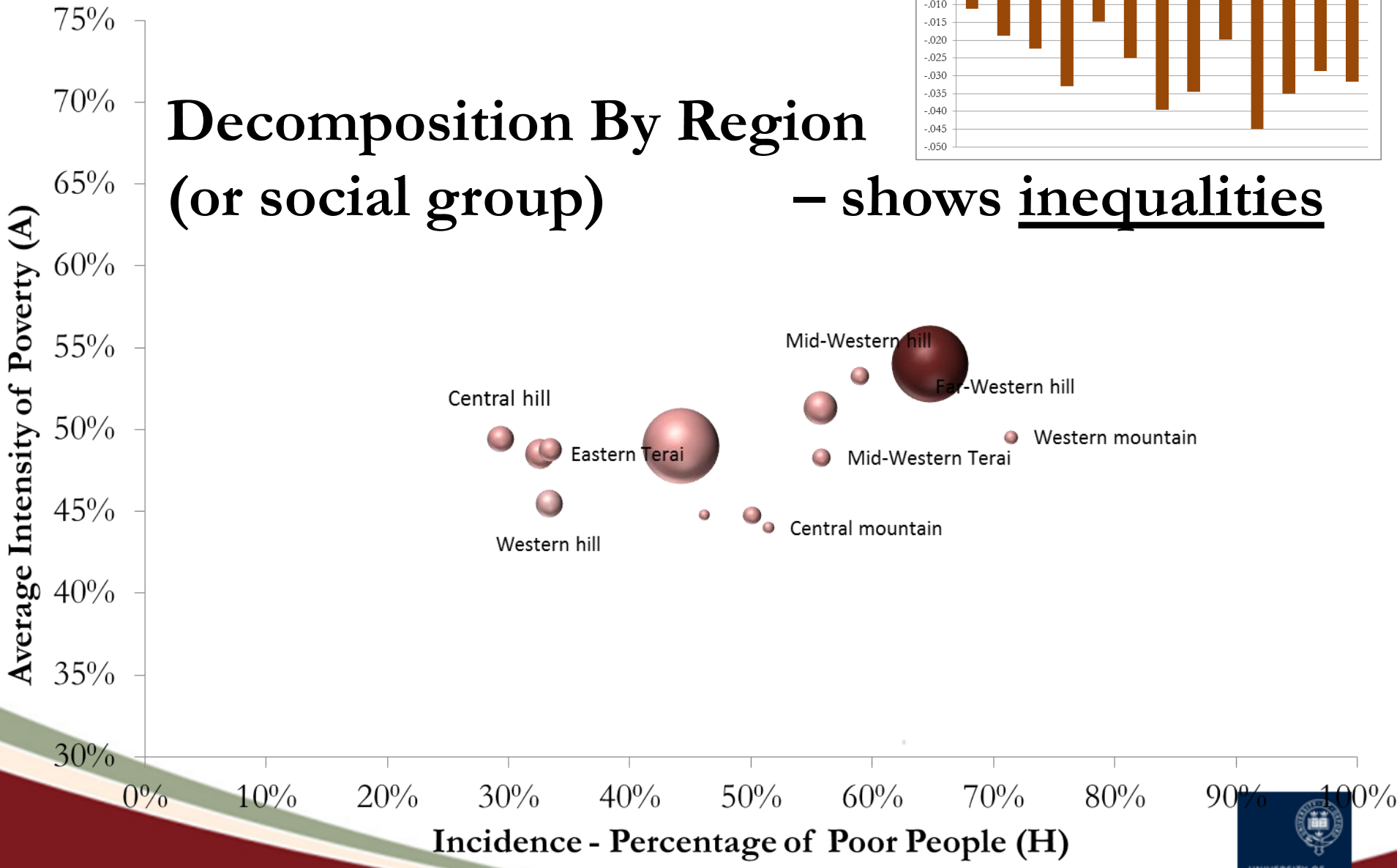
What MPI shows – National level

How MPI decreased in Nepal 2006-11



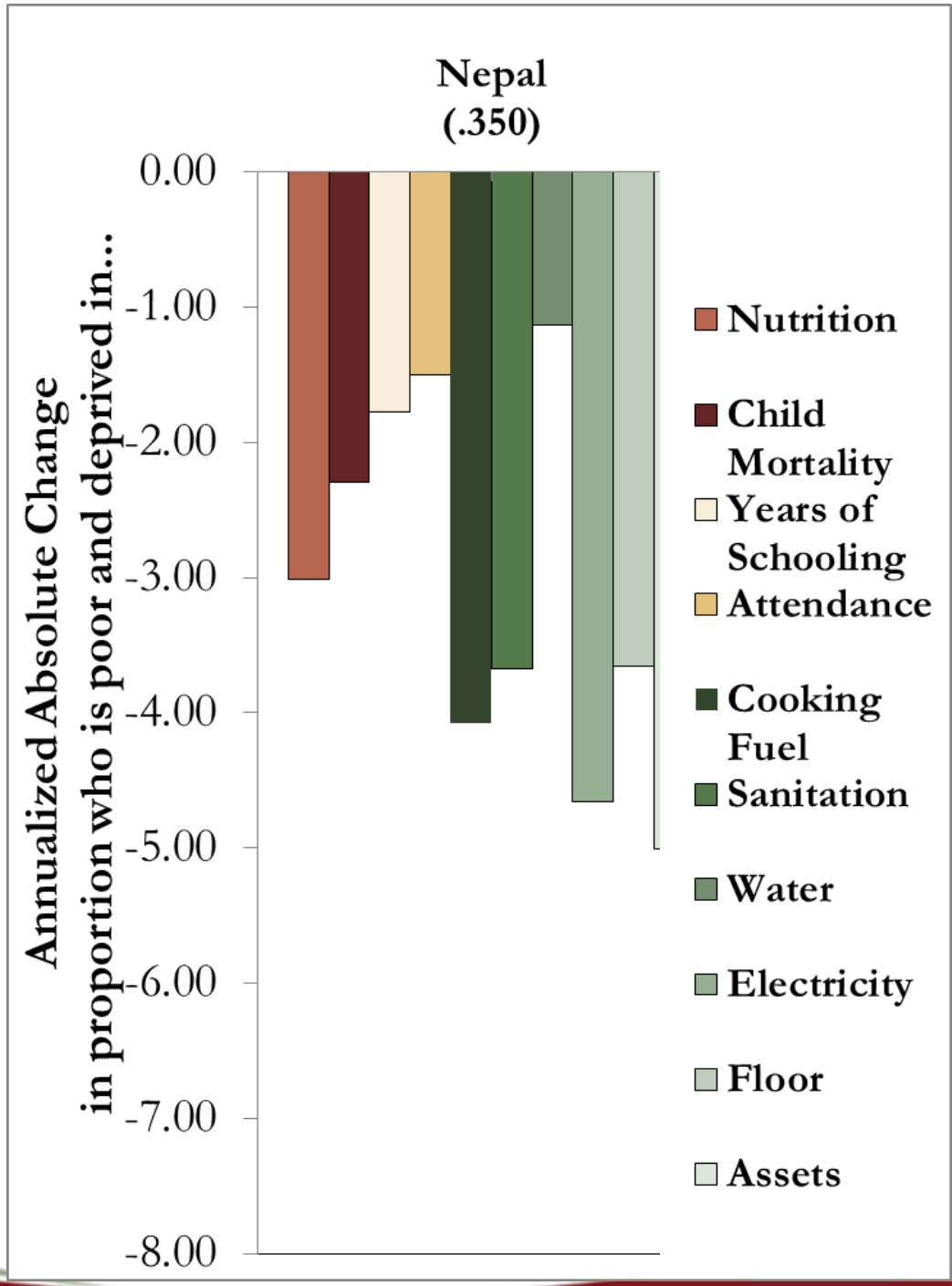


Decomposition By Region (or social group) – shows <u>inequalities</u>

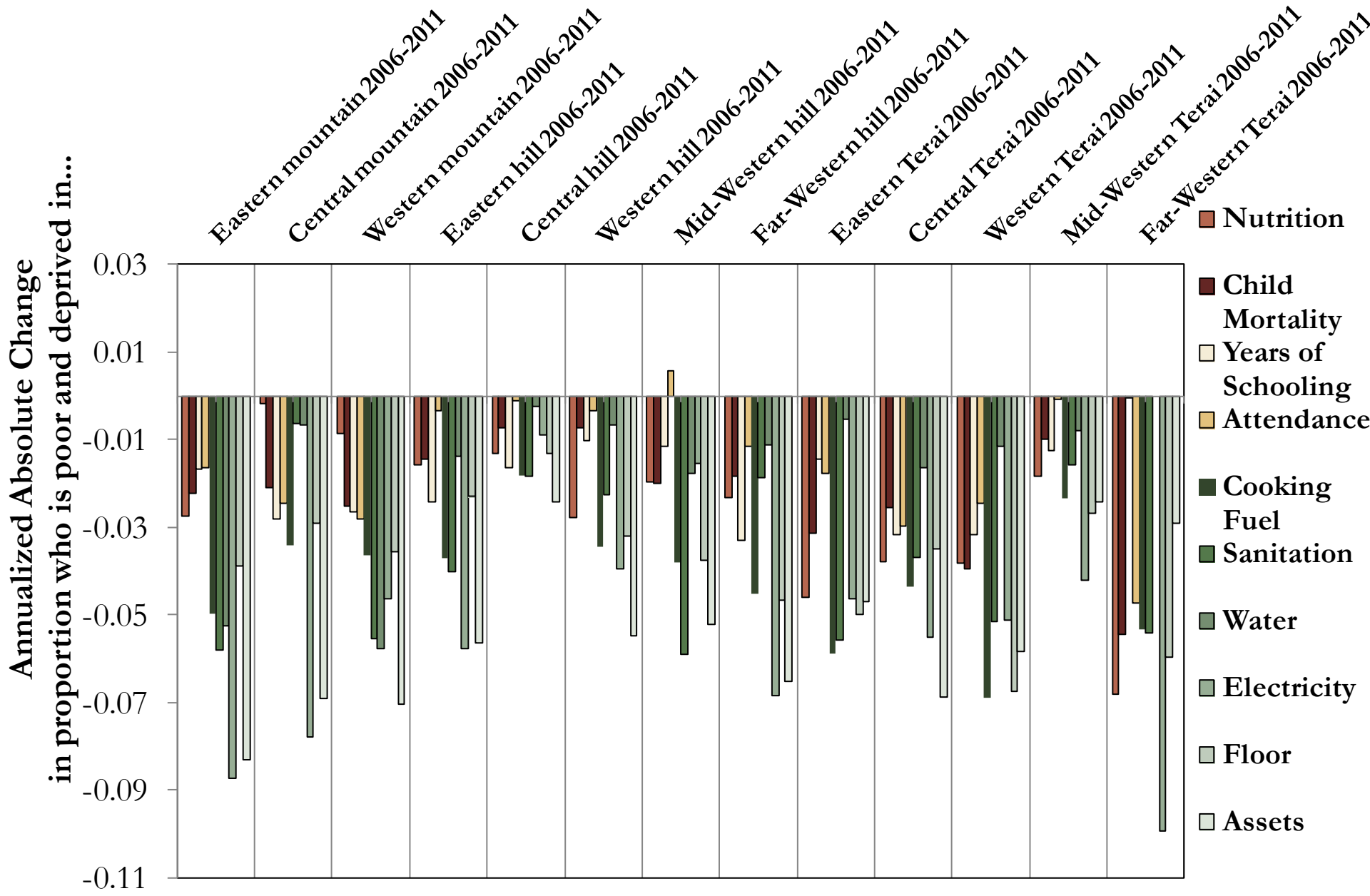


How did MPI go down?

Monitor each indicator



Indicator Changes by region (Nepal)



The MPI: High Resolution

The MPI can be broken down in different ways:

1. By Headcount – to show *how many* are poor
2. By Dimension – to show *how* people are poor
3. By Intensity – to show *who* has greatest intensity
4. By Sub-group – to show how groups vary (in headcount, intensity, and composition)

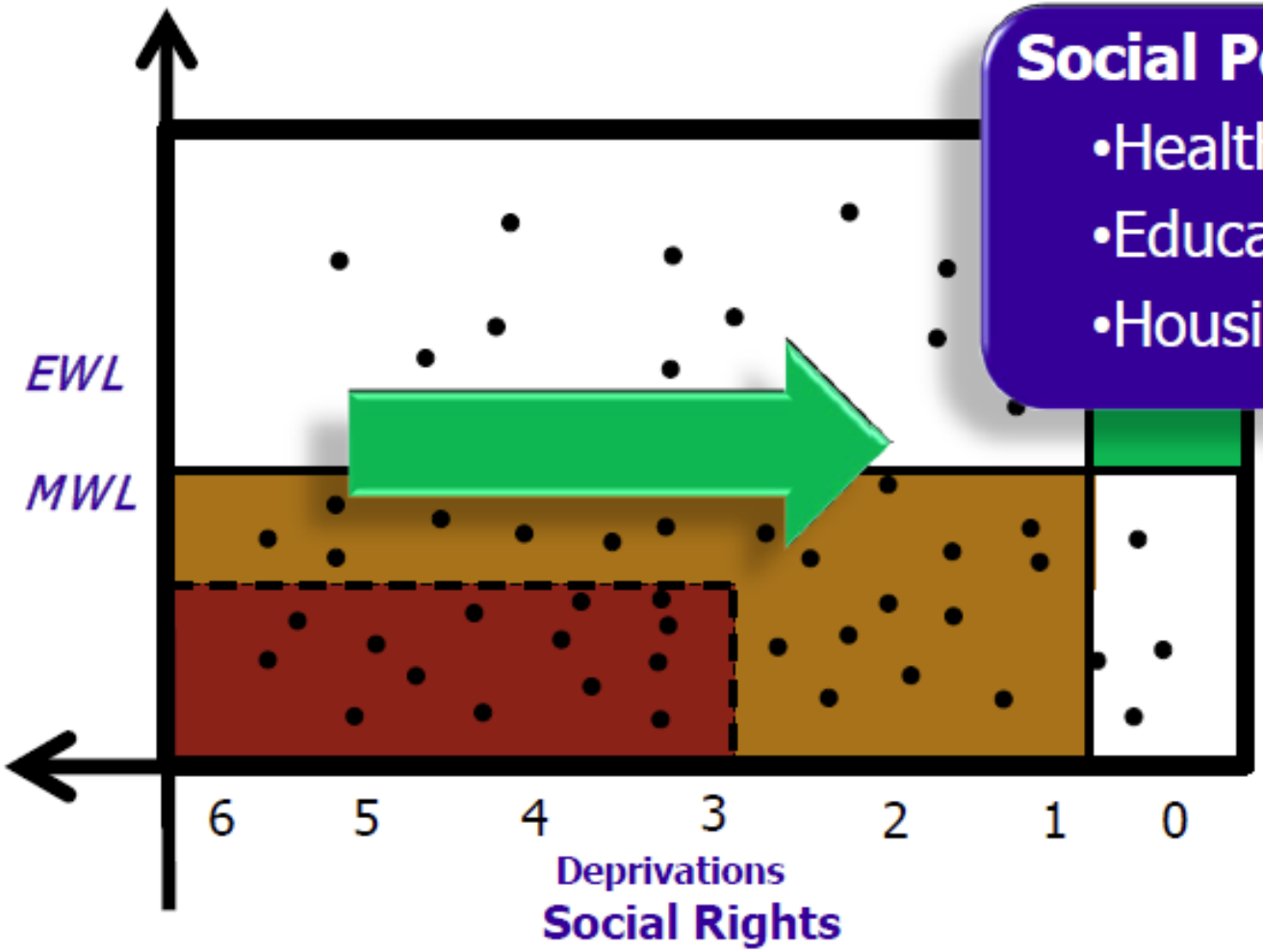
In fact, it is the MPI *Plus* a dashboard (a set) of consistent subindices that unpack the AF analysis and supply powerful analysis.

Some Policy Applications of MPIs:

- **Track poverty** over time (official statistics)
- **Compare** poverty by region, ethnicity, rural/urban
- **Monitor** indicator changes (measure to manage)
- **Coordinate** different policy actors
- **Target** marginalized regions, groups, or households
- **Evaluate** policy impacts

CONEVAL
Consejo Nacional de Evaluación de la Política de Desarrollo Social

What policies should be carried out?



Social Policies:

- Health
- Education
- Housing

MPI National Applications

MPI in Action

Official National MPIs

Colombia

Mexico

Bhutan

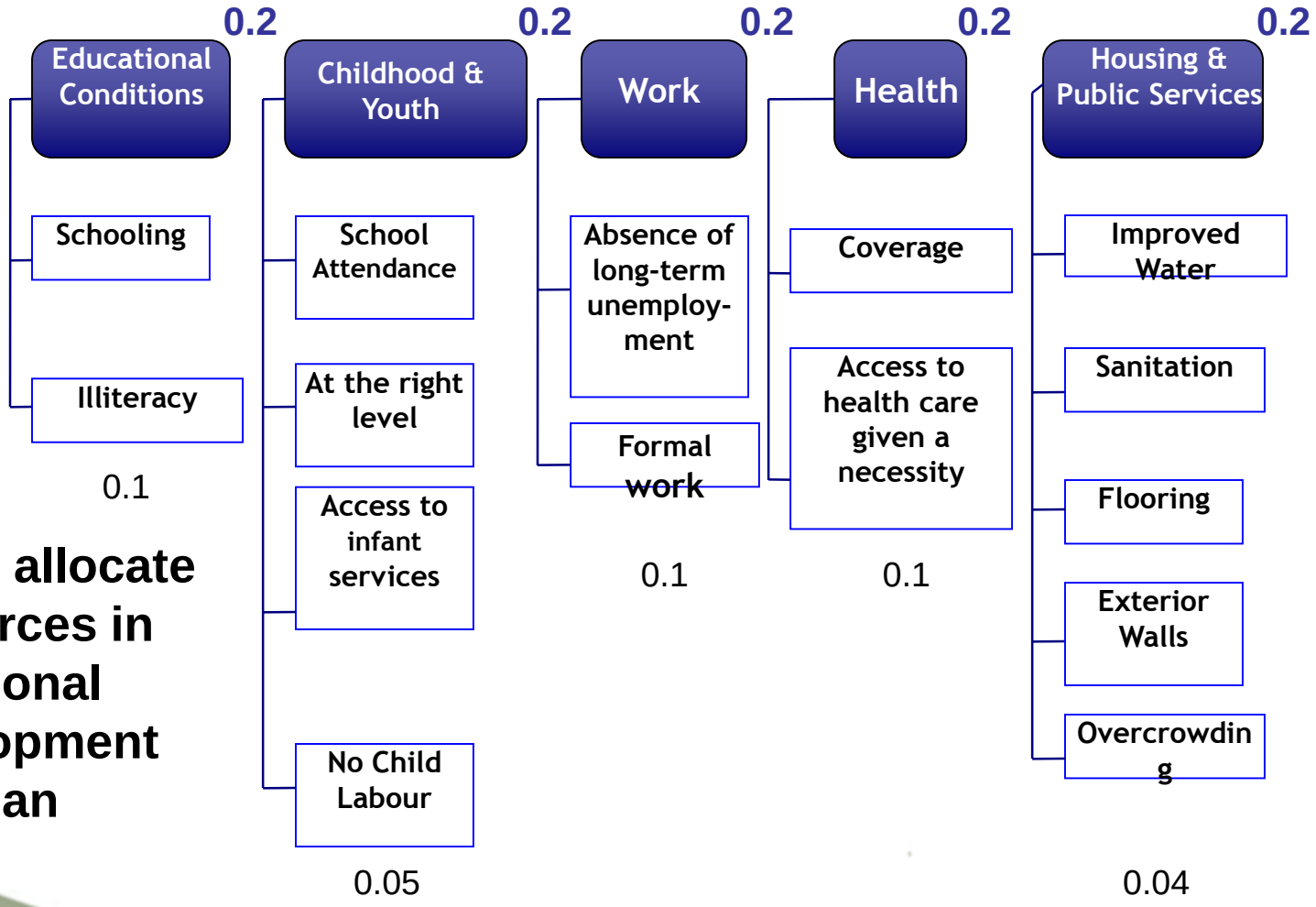
Philippines

Others: China, Tunisia, Indonesia, Chile, Costa Rica, Vietnam, Eastern Caribbean, Honduras, Pakistan, Angola

Colombia'sMultidimensional Poverty Index(IMPI)

Education	Childhood & youth conditions	Labor	Health	Public utilities & housing conditions

Colombia 2011, 2013: MPI-Colombia



Used to allocate resources in national development plan

DPS
DEPARTAMENTO PARA LA PROSPERIDAD SOCIAL

National Development Plan 2010-2014: goals in the reduction of poverty using a complete profile (MPI & income)

Sectoral goals
For accomplishing the strategy

Pobreza		Línea Base PND 2008	Dato 2011	Dato 2012	Análisis	Goal	
MPI (Multidimensional Poverty)		**34.7%**	**29.4%**	**27.0%**		**22.5%**	
A(1)	▪ Educational achievement (≥15 yrs)	58.8%	54.6%	53.1%		52.8%	
	▪ Literacy (≥15 yrs)	14.2%	12.0%	12.1%	★	12.0%	
B(2)	▪ School attendance (6-16)	5.4%	4.8%	4.1%		3.5%	***
	▪ No school lag (7-17)	33.4%	34.1%	33.3%		33.1%	
	▪ Access to child care services (0-5)	12.1%	10.8%	9.4%		10.6%	***
	▪ Children not working (12-17)	5.5%	4.5%	3.7%		2.9%	***
C(3)	▪ Long-term unemployment	9.6%	9.1%	10.0%	★	9.3%	***
	▪ Formal employment	80.6%	80.4%	80.0%		74.7%	
D(4)	▪ Health insurance	24.2%	19.0%	17.9%		0.5%	
	▪ Access to health services	8.9%	8.2%	6.6%		2.4%	***
E(5)	▪ Access to water source	12.9%	12.0%	12.3%	★	10.9%	
	▪ Adequate sewage system	14.1%	14.5%	12.1%		11.3%	***
	▪ Adequate floors	7.5%	6.3%	5.9%		5.6%	
	▪ Adequate external walls	3.1%	3.2%	2.2%		2.1%	***
	▪ No critical overcrowding	15.7%	14.2%	13.1%		8.4%	***

***** Change 2011-2012 est. significant**

FUENTE: DANE

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High official commission

Monitoring an integrated poverty reduction

High Official Commission

Monitoring the national strategy for the reduction of poverty using official poverty measures

- **Leaders**
  - Presidency (Mandatory presence of the President of Colombia)
  - Department for Social Prosperity
  - National Planning Department

- **Permanent members**
  - Ministry of Health
  - Ministry of Labour
  - Ministry of Housing
  - Ministry of Agriculture
  - Ministry of Education
  - Ministry of Finance

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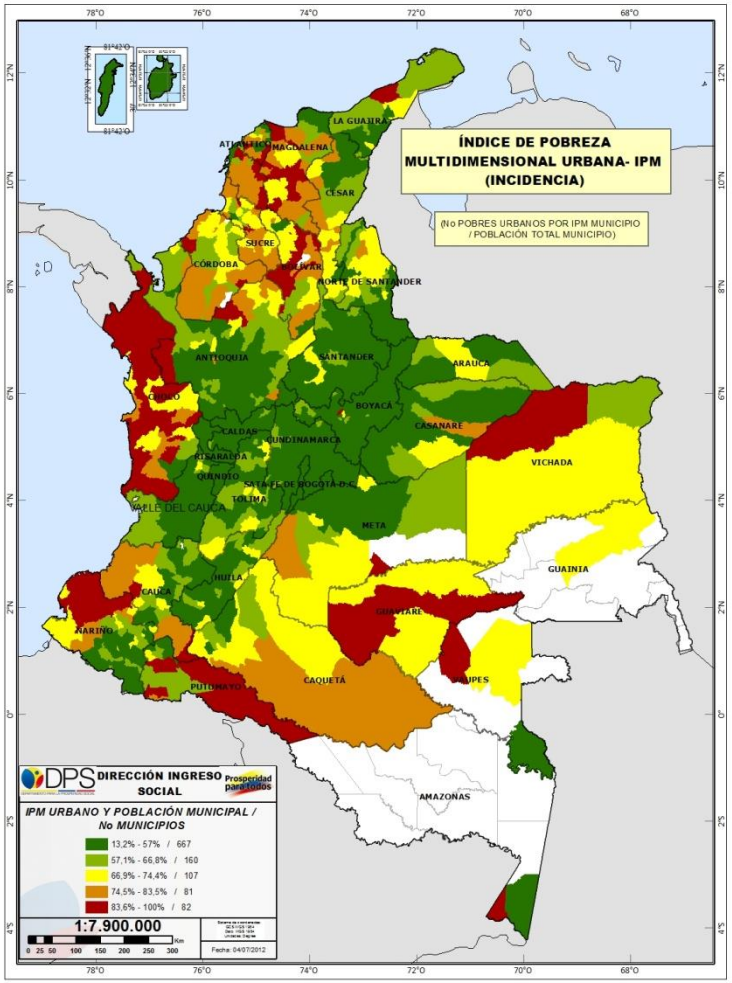
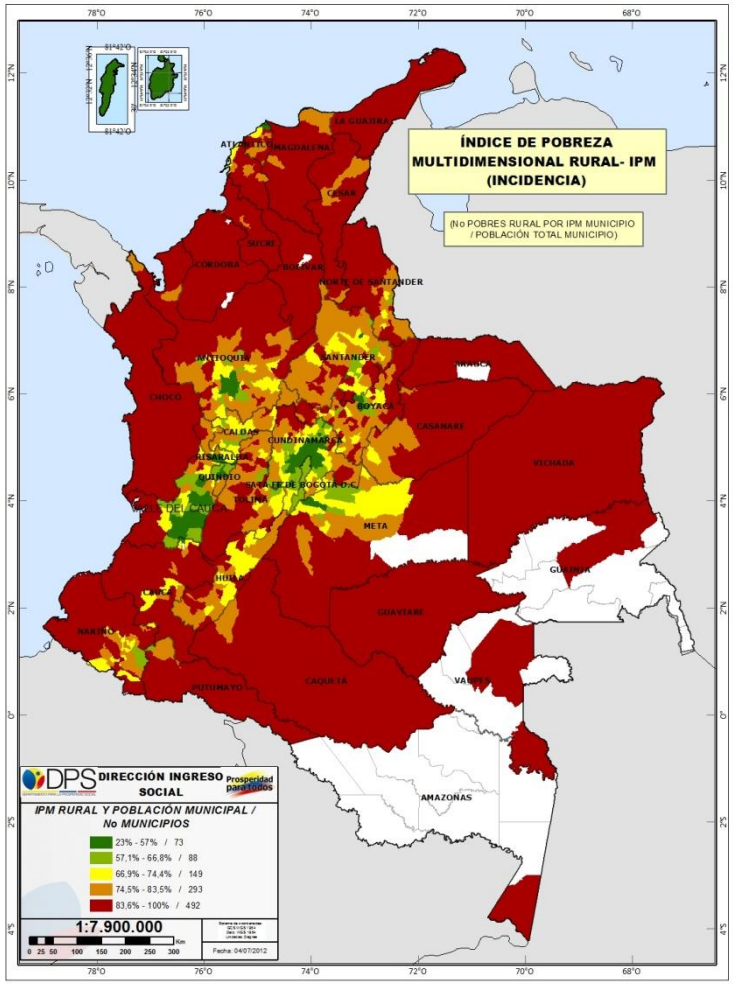
Geographical Targeting
(Poverty maps
Municipal MPI Colombia)

Municipal MPI Colombia
Headcount ratio, urban-rural areas, 2005





MPI proxy based on Census Data 2005

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A family is "graduated" from unidos como uno por la prosperidad de todos if:

Sufficient condition:

&

IPM

Not in extreme income poverty

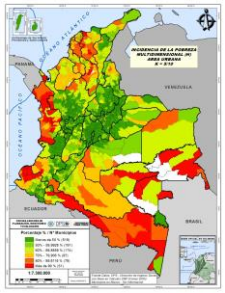
Not multidimensionally poor

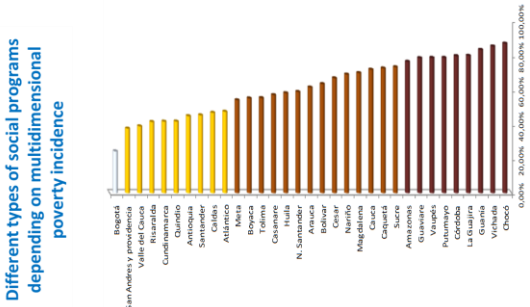
From 2010 to 2012, 1,7 million persons overcame income poverty and 700 thousand extreme poverty

On the other hand, 1.3 million persons were no longer MPI poor

MPI - 4 key aspects:

1. Reflects the objectives of social policy
2. Coordinates public policy sectors
3. Monitors public policy
4. Informs Decision-making:
    1. Geographic targeting
    2. Programme composition
    3. Graduation from CCTs





&

MPI

Consejo Nacional de Evaluación de la Política de Desarrollo Social

Multidimensional Poverty in Mexico
Methodology & results

First released December, 2009

Using the multidimensional approach for policy purposes

- In 2013 the President and the Minister of Social Development established poverty strategies and goals for all Ministries

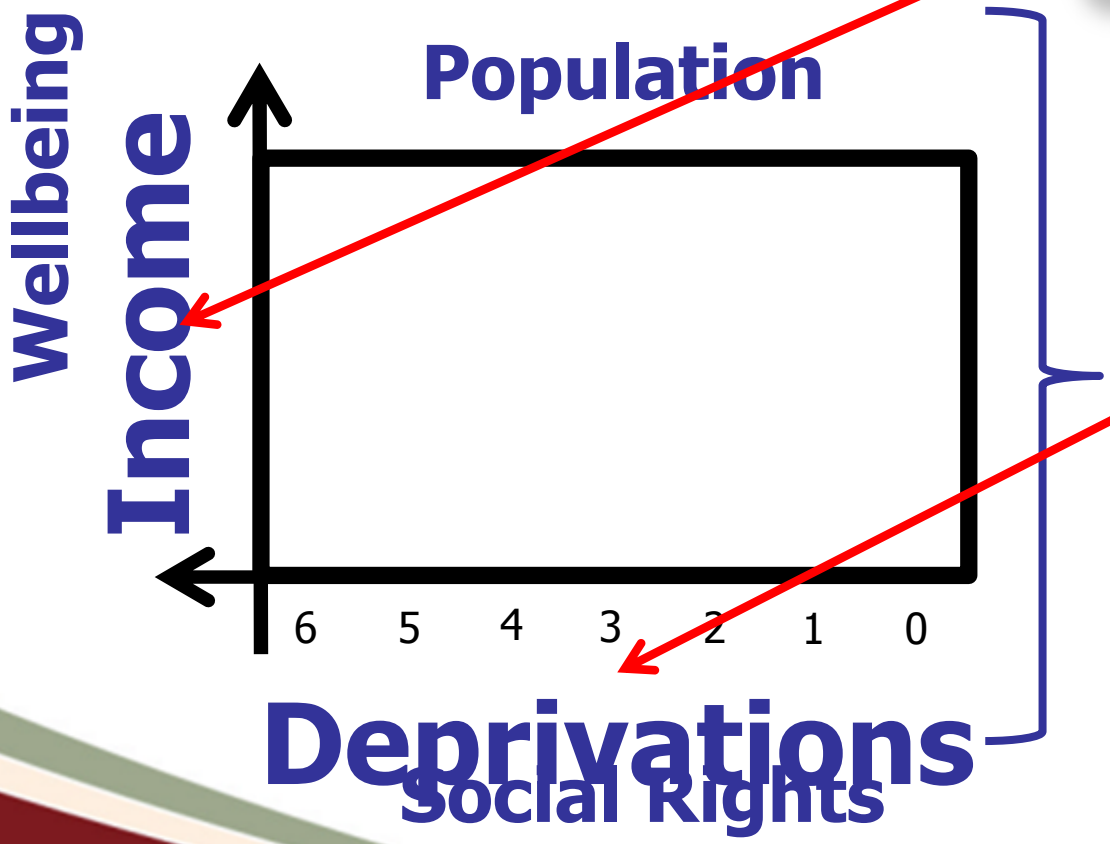
- The new National Development Plan was launched in May 2013 with 14 indicators. 2 of them are taken from the multidimensional poverty methodology

- State Governors are now concerned about reducing poverty. They keep asking how can they do it.

- Opposing political parties use and believe in the multidimensional poverty estimates since 2009 (as well as the media)

What are the main features of the new methodology?

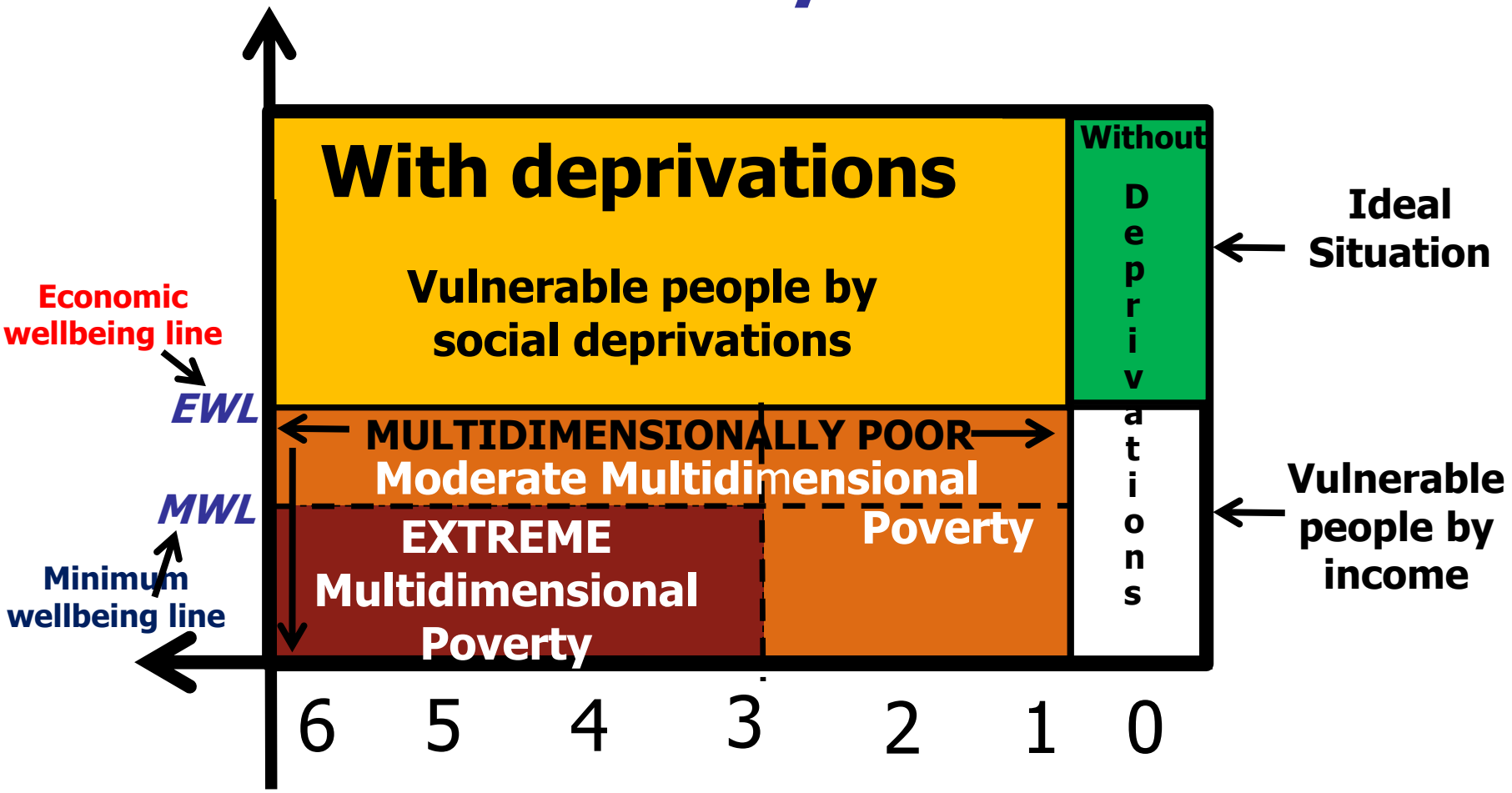
Current income per capita



Six Social Rights:

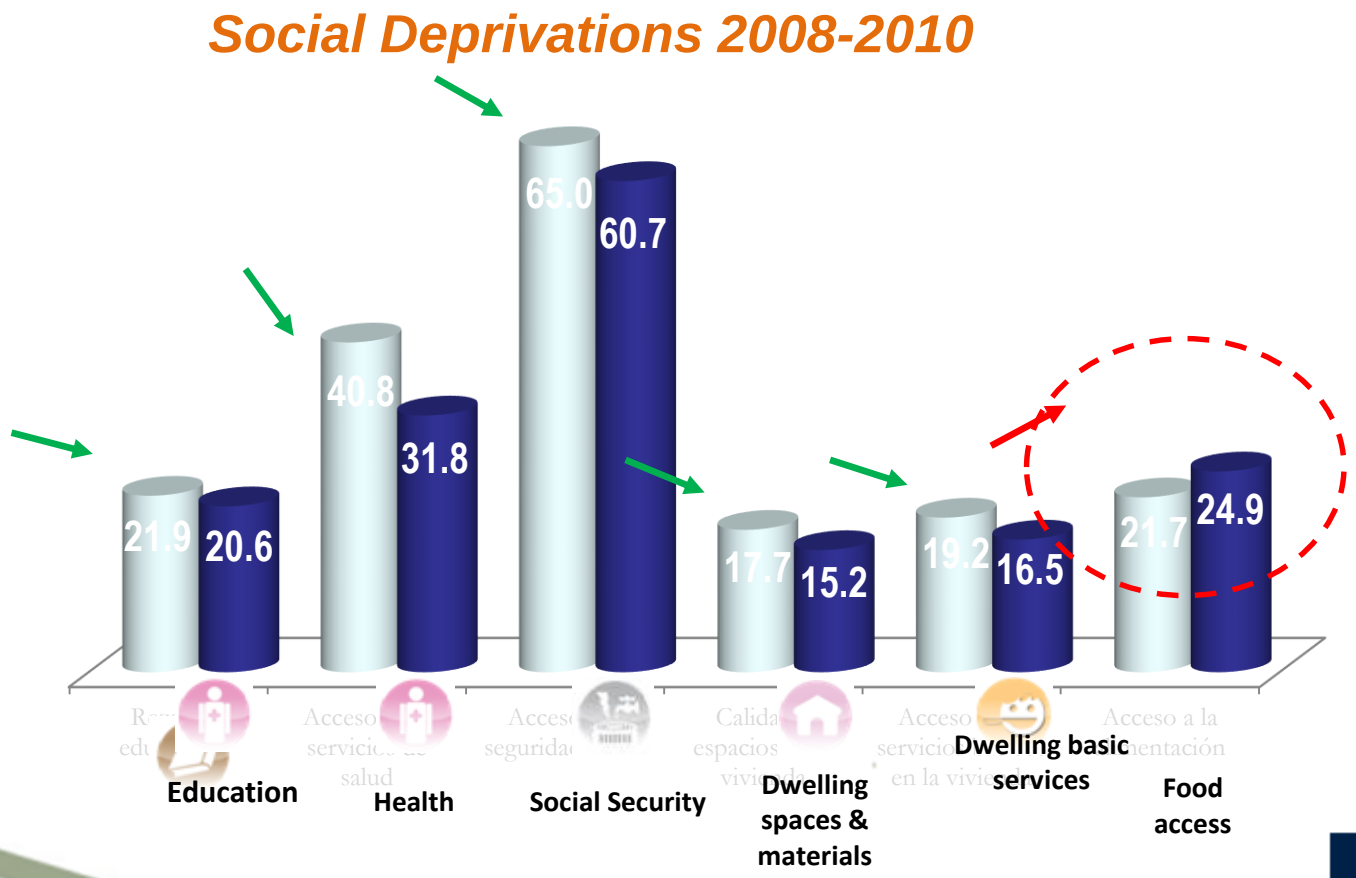
- **Education**
- **Health**
- **Social Security**
- **Housing**
- **Basic services**
- **Feeding**

Poverty Identification

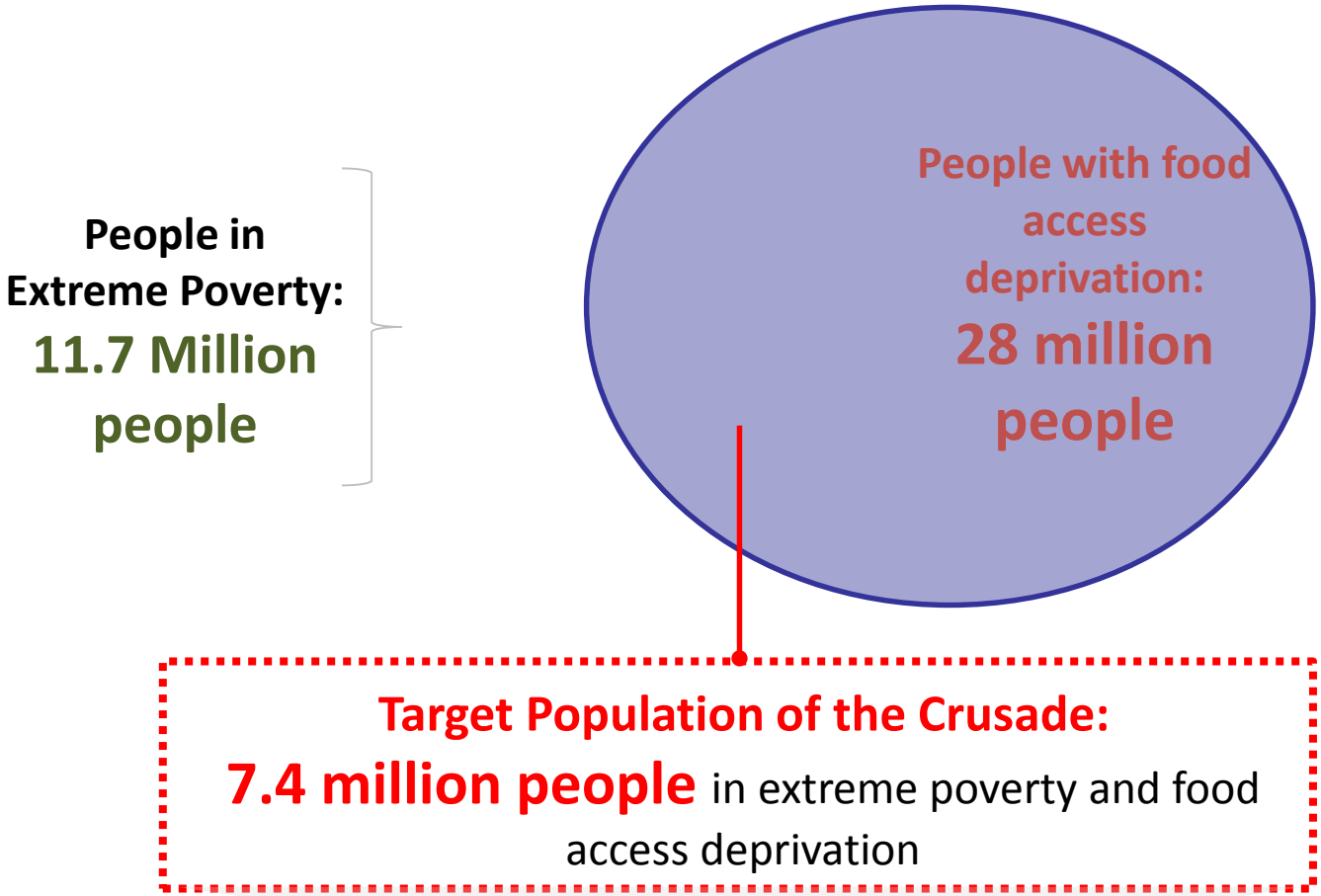


MOTIVATION

CONEVAL: from 2008 to 2010 five out of six social deprivations decreased, but one increased: access to food. Food access deprivation increased by 4.2 million.



TARGET POPULATION-CRUSADE AGAINST HUNGER



Aim 2013: 400 Strategic Municipalities

The Multidimensional Poverty Peer Network (MPPN)

AND OTHER VOICES

The Multidimensional Poverty Peer Network

Launched in June 2013 at University of Oxford with:

- President Santos of Colombia
- Ministers from 16 countries in person
- A lecture from Professor Amartya Sen
- http://www.ophi.org.uk/policy/policynetwork/

Supported by the German Federal Ministry for Economic Cooperation and Development (BMZ)

BMZ Federal Ministry for Economic Cooperation and Development

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The Global Multidimensional Poverty Peer Network (MPPN) had 22 countries in 2013

Angola, Bhutan, Brazil, Chile, China, Colombia, Costa Rica, Ecuador, El Salvador, Dominican Republic, Germany, Honduras, India, Iraq, Malaysia, Mexico, Morocco, Mozambique, the Organization of Caribbean States, Pakistan, Peru, Philippines, Seychelles, South Africa, Tunisia, Turkey, Uruguay, and Vietnam

Supported by

BMZ Federal Ministry for Economic Cooperation and Development

OPHI Oxford Poverty & Human Development Initiative

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MPPN has 32 countries plus international agencies in 2014

Supported by the German Federal Ministry for Economic Cooperation and Development (BMZ)

OPHI Oxford Poverty & Human Development Initiative

BMZ Federal Ministry for Economic Cooperation and Development

Recent New Members

Tajikistan

Nepal

Djibouti

The Network's Agenda

- Expansion of Multidimensional Poverty Index
  - National measures (Colombia, Mexico, Philippines, Bhutan, Chile, Vietnam, Costa Rica, Eastern Caribbean)
- An Effective and Informed Voice in the Post 2015 Discussions
  - MPPN Survey
  - Ongoing work to advance an MPI2015+
- The Promotion of Joint Research and Development of Practical Tools

A post-2015 Multidimensional Poverty Index - MPI2015+

At a side events to the UNGA 2013 and 2014, the MPPN **proposed an MPI2015+** to help ensure extreme poverty is eradicated in all its forms.

http://www.ophi.org.uk/multidimensional-poverty-measurement-in-the-post-2015-development-context

"***Development is, ultimately, the progress of human freedom and capability to lead the kind of lives that people have reason to value.***"

~ Amartya Sen (Uncertain Glory, 2013, p 43)

For more information, visit:

http://www.ophi.org.uk/

www.mppn.org

Look out for forthcoming textbook: Multidimensional Poverty Measurement and Analysis by Alkire, Foster, Seth, Santos, et al (OUP, expected publication date mid-2015)