

# OPHI

OXFORD POVERTY & HUMAN DEVELOPMENT INITIATIVE

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UNIVERSITY OF  
OXFORD

## Uses & Institutionalisation of Multidimensional Poverty Measurement

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Tabita, Kenya



Rabiyi, India



Stéphanie, Madagascar



Agathe, Madagascar



Dalma, Kenya



Ann-Sophie, Kenya



Valérie, Madagascar

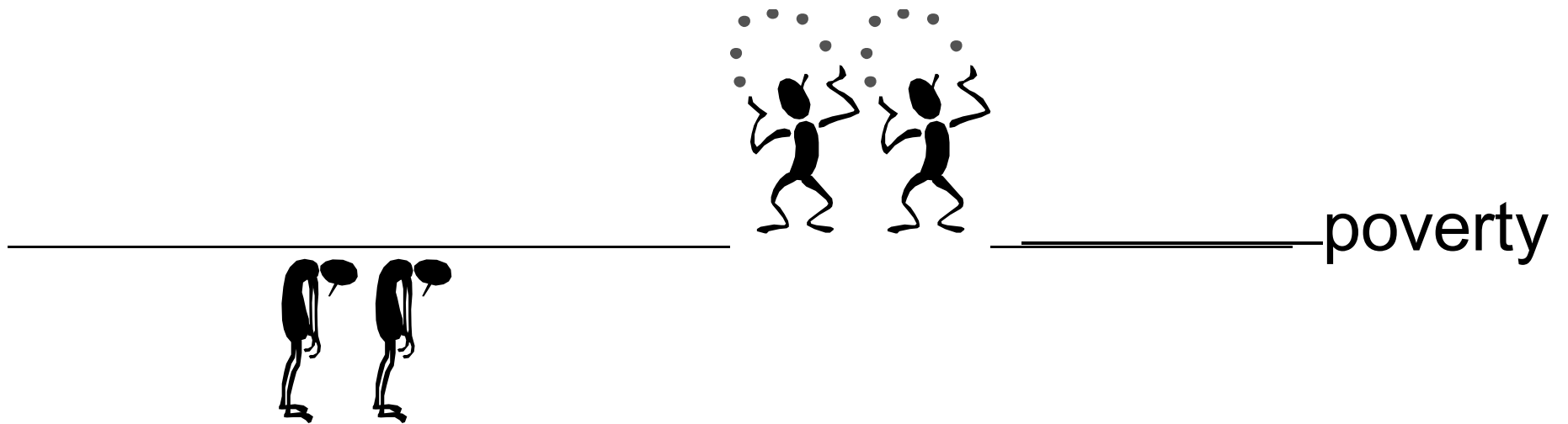


# Agenda

1. Why?
2. Policy Considerations
3. Political Considerations
4. How to use the MPI
5. Examples

Why?

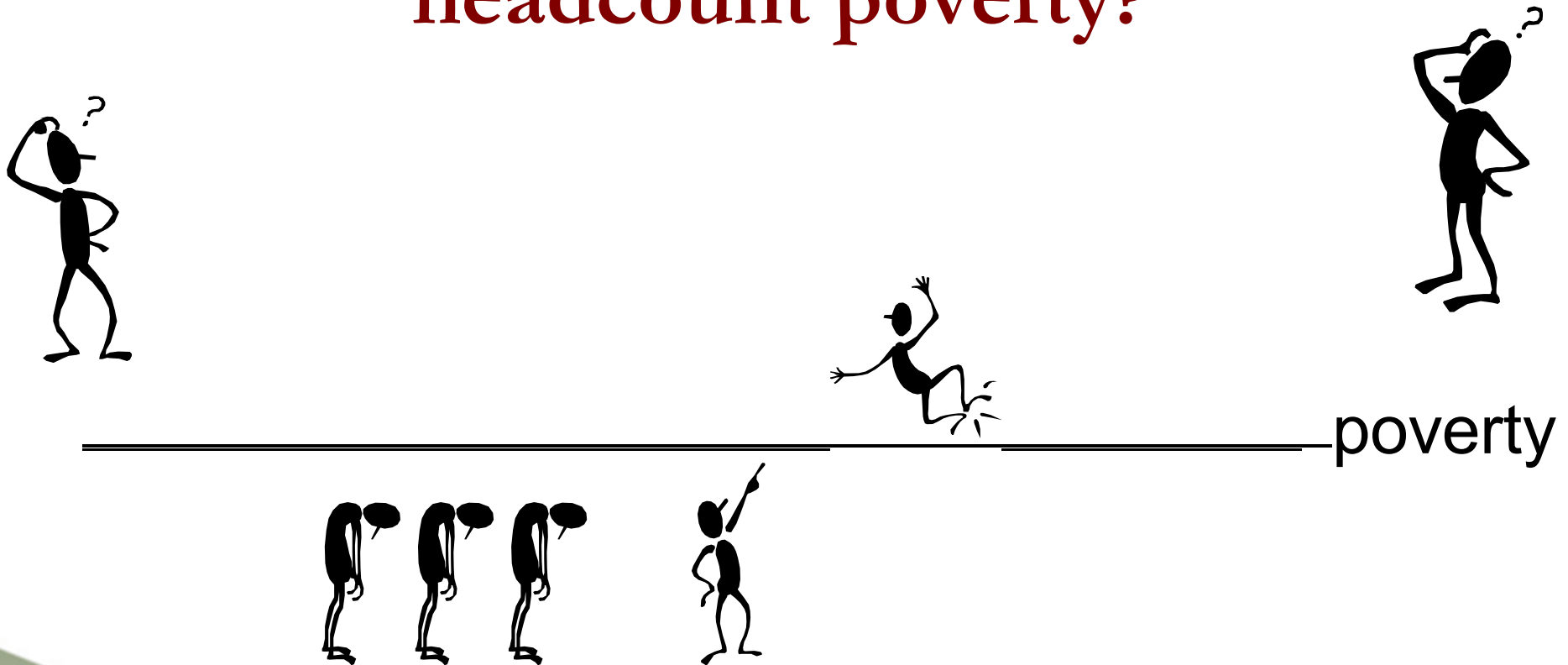
# We usually identify who is poor



## What next?



# Think ahead to policy incentives: How do policy makers decrease headcount poverty?



**Answer: They reach out to the person  
closest to the line**

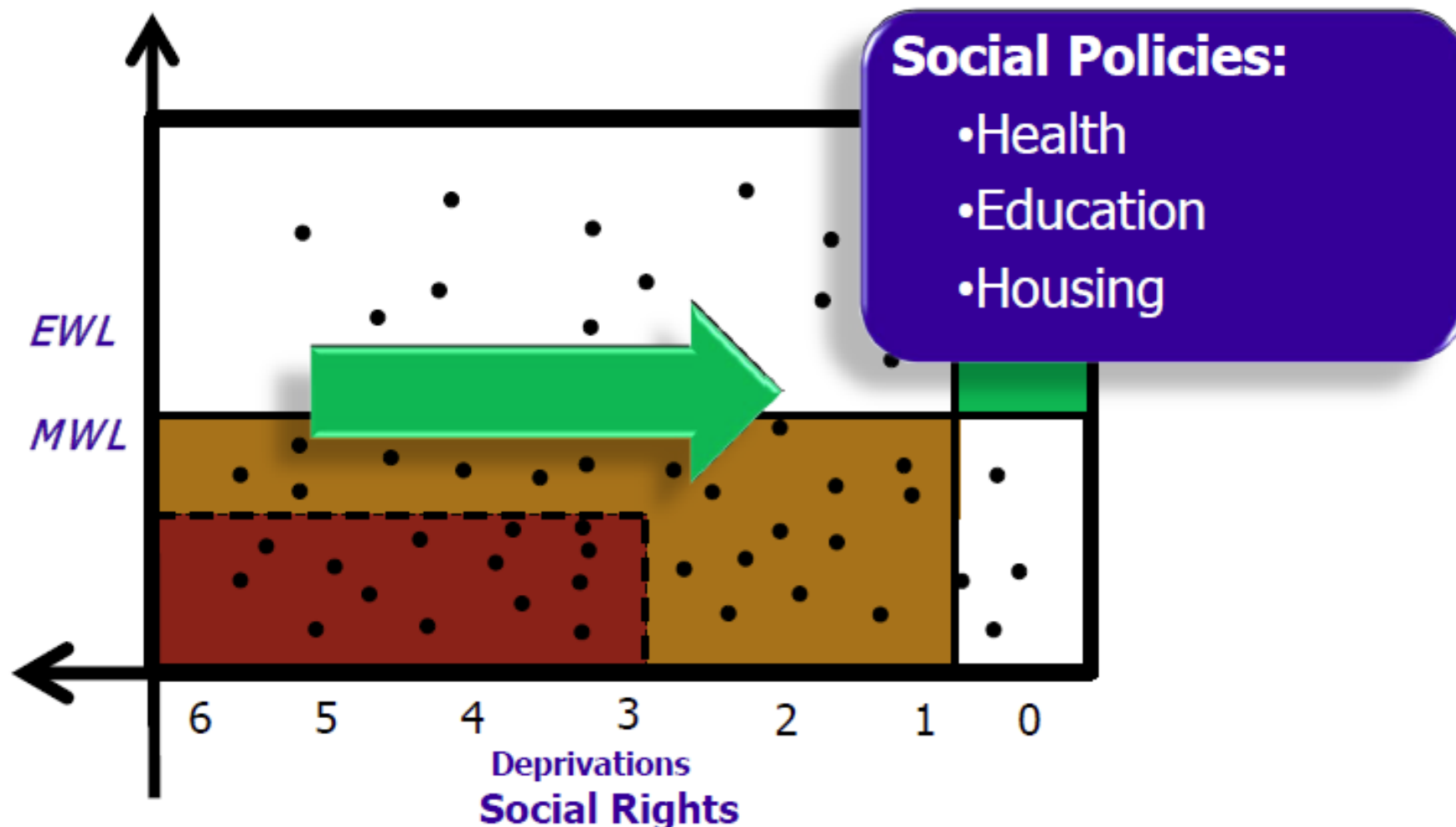
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## However ...

- Poverty is **MULTIDIMENSIONAL**
- The intensity of poverty matters
- We need better data (info)
- **We need to make it sustainable over time**

# What policies should be carried out?



# Policy Considerations

# Policy Considerations:

A technically sound multidimensional poverty measure can be institutionalised only if:

- there is **strong political support** at the highest levels of government,
- tensions are anticipated,
- communications strategies are in place and
- the institutional requirements to use and update the measure are in place.





# Political Support

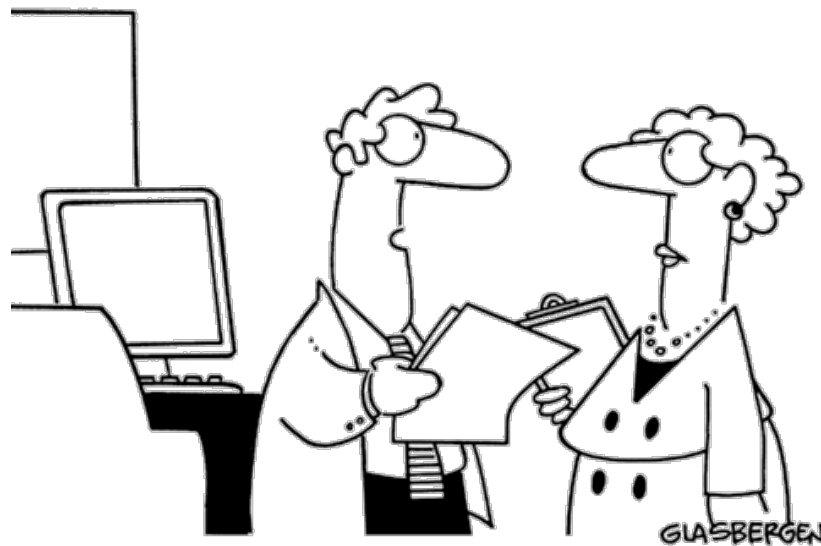
- If you have political support at the top → 😊
- If you do not have political support .....



# Political Support

- If you have political support at the top → ☺
- If you do not have political support .....

Copyright 2006 by Randy Glasbergen. www.glasbergen.com



"My team has created a very innovative solution,  
but we're still looking for a problem to go with it."

DEFINE THE PROBLEM -  
REQUIREMENTS!!

# Policy Applications of MPIs:

## 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

# If you do not have political support

## Look for

- Hidden facts
  - Intensity
  - Public policies (short term)
- Accountability
- Allows coordination
- You are not alone!
  - International (MDGS, SDGS)
  - MPPN

• Be ready!!!!

# Process for developing the MPI

- Mexico
- Colombia
- Bhutan
- Philippines
- El Salvador

# Political Considerations

# Key Questions

- Who 'owns' the measure
- Who understands the methodology?
- Will it be perceived to be legitimate in method & result?
- Will it be perceived to be accurate by the general public?
- Will it be perceived to be captured by some interest group?
- Who feels that serious concerns will be considered in updating the methodology?

# Who needs to be on board?

- Technical staff (**you!**)
- Ministers
- Government leaders affected
- Government employees
- Civil society
- Academics
- Media
- General public



# Key Stakeholders

- **Leadership**
  - There needs to be a clear leader or/and a good coordination mechanism.
    - Relevant institutions vary: Ministry of Planning, Finance, Social Development, Statistics Institutes, Central Bank, etc.
    - Colombia: President presides over a special cabinet involving all responsible ministries (e.g. Ministry of housing as one of the dimensions is housing).
    - Mexico: CONEVAL
- **Technical capacity**
  - Good technical capacity is needed to accompany the political will to introduce a MD poverty measure.

# Preferences & Aesthetics of the Powerful

Inevitably, the measure may also be influenced by particular personal preferences of the leadership.

These might be in **variable choice**:

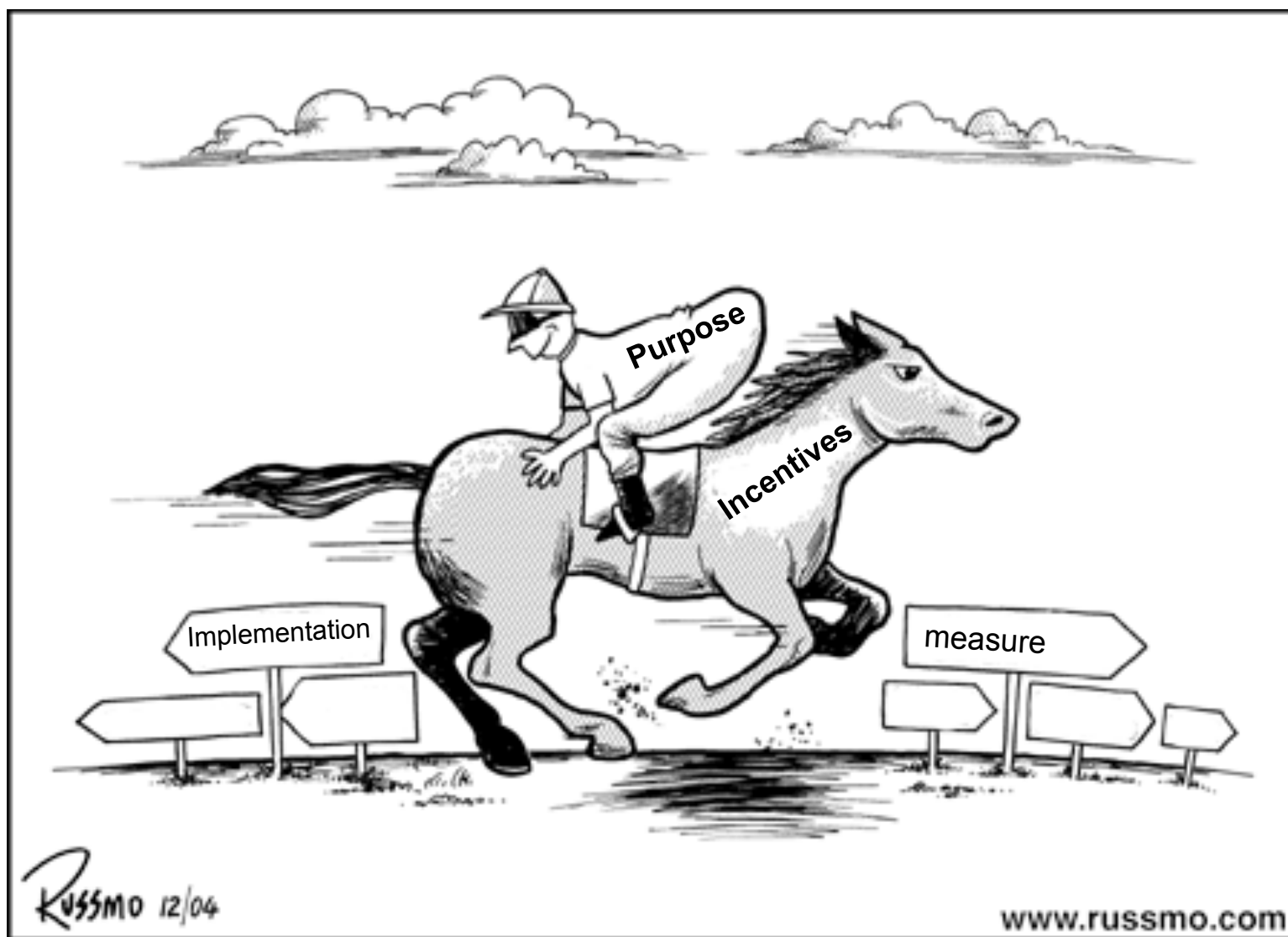
- Some reject income poverty measurement as a feature of a “neo-liberal paradigm”
- Some hold strong beliefs regarding certain variables.

They might be in terms of **presentation**

- Some prefer ‘complexity’ as it seems technically ‘scientific’
- Some prefer ‘simplicity’ (few vars) as it seems clearer.

They might be in terms of **analysis**

- Preference for certain techniques they know
- Preference for ‘key messages’ media expect



# Technical/Policy Considerations

Perennial question for measurement design: who are the ‘**users**’ of the measure: how can the measure be designed to *create* **positive incentives**?

Consider the incentives created by each choice:

- Space (service delivery, functionings)
  - If the **space matches programme outputs**, a direct M&E tool.
  - Will the measure inform **budget allocation**? Are the analytical needs clear?

# Technical/Policy Considerations

Perennial question for measurement design: who are the ‘**users**’ of the measure: how can the measure be designed to *create* **positive incentives**?

Consider the incentives created by each choice:

- Indicator selection & weights
  - Who (ministries, sectors, etc) is congratulated if poverty goes down? Who seems to be **responsible** if poverty goes up?
  - Are **relevant indicators present for each programme** (e.g. micro-nutrients)
  - What **programmatic trade-offs** do weights imply? Are these reasonable?

# Technical/Policy Considerations

- Dimensional and poverty cut-off
  - If poverty  $H$  or  $M_0$  **starts very high**, may be politically sensitive yet decreases can be visible
  - If poverty **starts very low** (= focused on poorest of the poor/ extreme destitution), it may be difficult to decrease
  - Level of **deprivation cutoffs** will affect the raw and censored headcounts, hence making one deprivation seem more pervasive (important) than another.

# Some National Considerations

- How to decide on dimensions, indicators, cut-off and weights?
  - Some countries have **constitutional mandates** or laws establishing many of these aspects (e.g. Mexico).
  - Some have strong governments have **explicit goals** in national development plans (e.g. Colombia), MDGs, etc.
  - Others calibrate using **participatory schemes** (Bolivia)
    - Bolivia and the long participatory process with indigenous groups about the dimensions
      - **Tension:** balance local context and technical/ comparability: Indigenous groups introduce aspects of community well-being and environment for which robust indicators do not exist or which are not applicable to all.

# Some National Considerations

- How to decide on dimensions, indicators, cut-off and weights?
  - Others calibrate using participatory schemes (Bolivia)
    - Others rely on **consultation** with different ministries and sectors of government, rather than with citizens / civil society
      - **Tension:** Institutions consulted may seek to ‘game’ the design of measures to maximise short-term gains.



# Some National Considerations

- Position of a government with respect to income poverty and MD poverty data:
  - Countries with *high income poverty reduction rates* may not wish to expose a more comprehensive situation if reduction is slower.
  - Countries may want to *show reduction in MD poverty* as income poverty reduction trends may be low.
  - Countries may want to *choose* the poverty cutoff such that MD poverty is lower than / equal to / greater than income poverty

# Some National Considerations

- **Political cycles:**
  - Elections may create an incentive to introduce a new measure, or discourage it.
    - MD poverty measurement based in **AF can show results in the short-run**; results take longer to be evident using income poverty measures.
  - Same with a switch of government
    - A new government may not be interested in showing MD poverty reduction trends from previous years as it will show a good effort by its predecessor.
    - Yet is also a good way of starting from a different benchmark.

# Some National Considerations

- **Establishing trust in the new measure:**
  - Misunderstandings and suspicion due to different values of income and MD poverty (if income poverty is lower).
  - Importance of participation

# Observations of Institutions Responsible for Creating, Analysing, and Updating poverty measures:

A correct measurement and characterization of poverty and inequality requires a **solid conceptual and technical support**, and at the same time a **general consensus** at the social participants/agents level → **transparency, participation, inclusion**

High **diversity** of inter-institutional cooperation modalities  
With and without **international agencies**

**Common:** a broader view, renewed and improved methods

**Recurrent limitation:** insufficient participation of civil society

*From Juan Carlos Feres' CEPAL powerpoint, August 2011, DNP Colombia*

# What structure do you set up

- CONEVAL-Mexico
- Colombia
- Philippines

# How to use the MPI

# Policy Considerations:

Consider the kinds of policy analysis and response the measure should be designed to support.

The purpose is **CRUCIAL!**

## Some Policy Applications of MPIS:

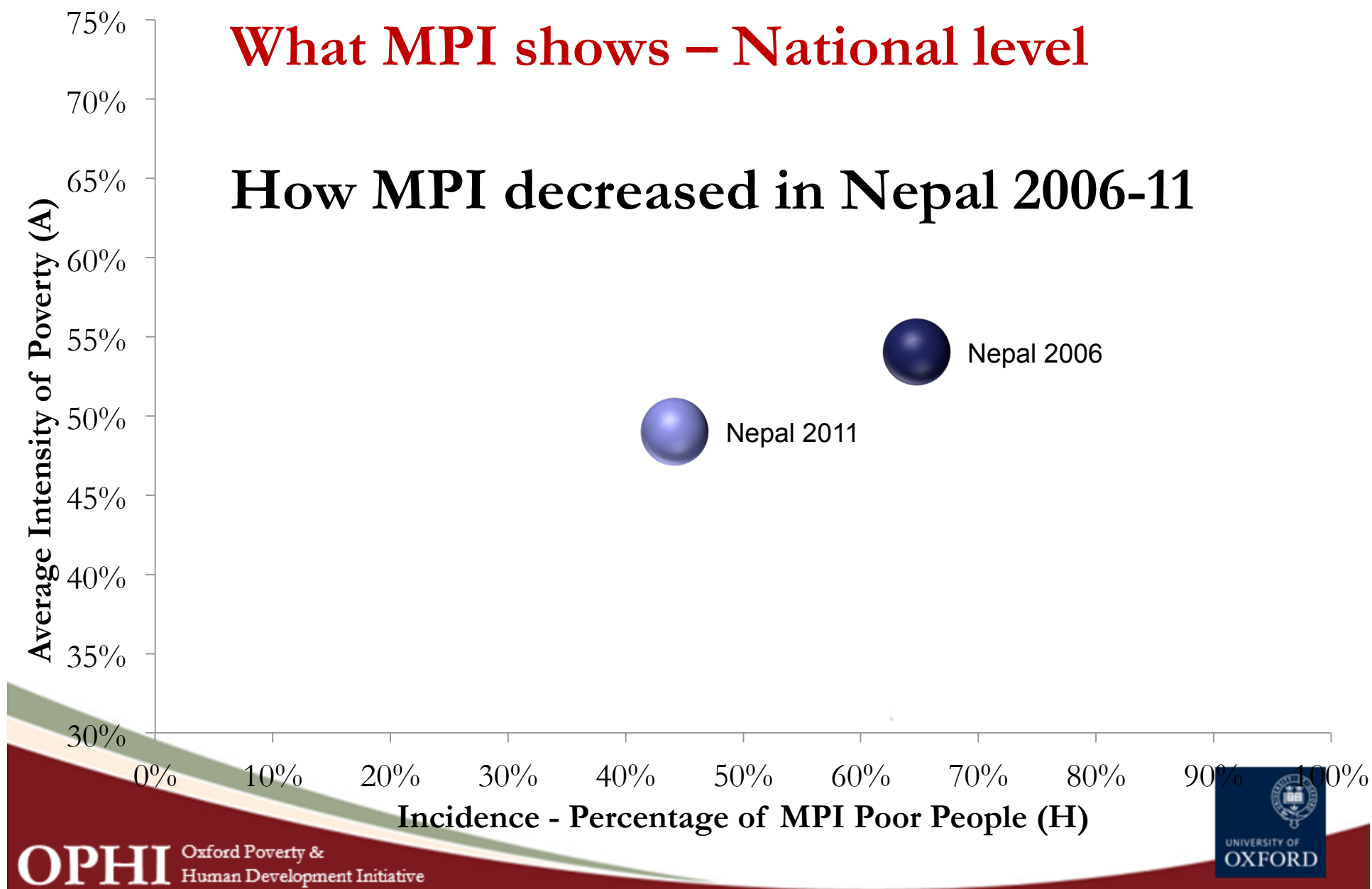
- **Track poverty** over time (official statistics)
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# Example: International MPI

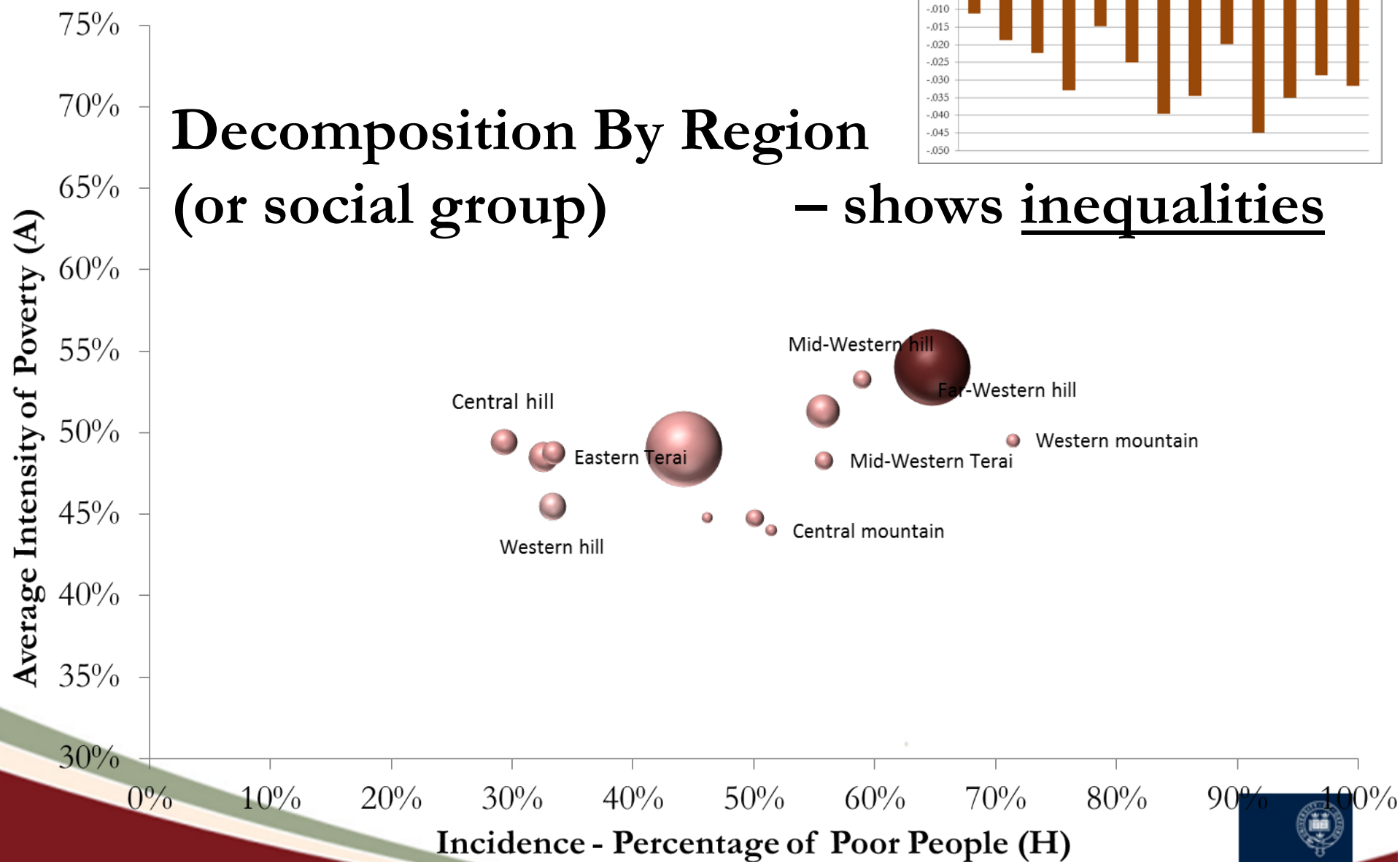
## What MPI shows – National level

### How MPI decreased in Nepal 2006-11

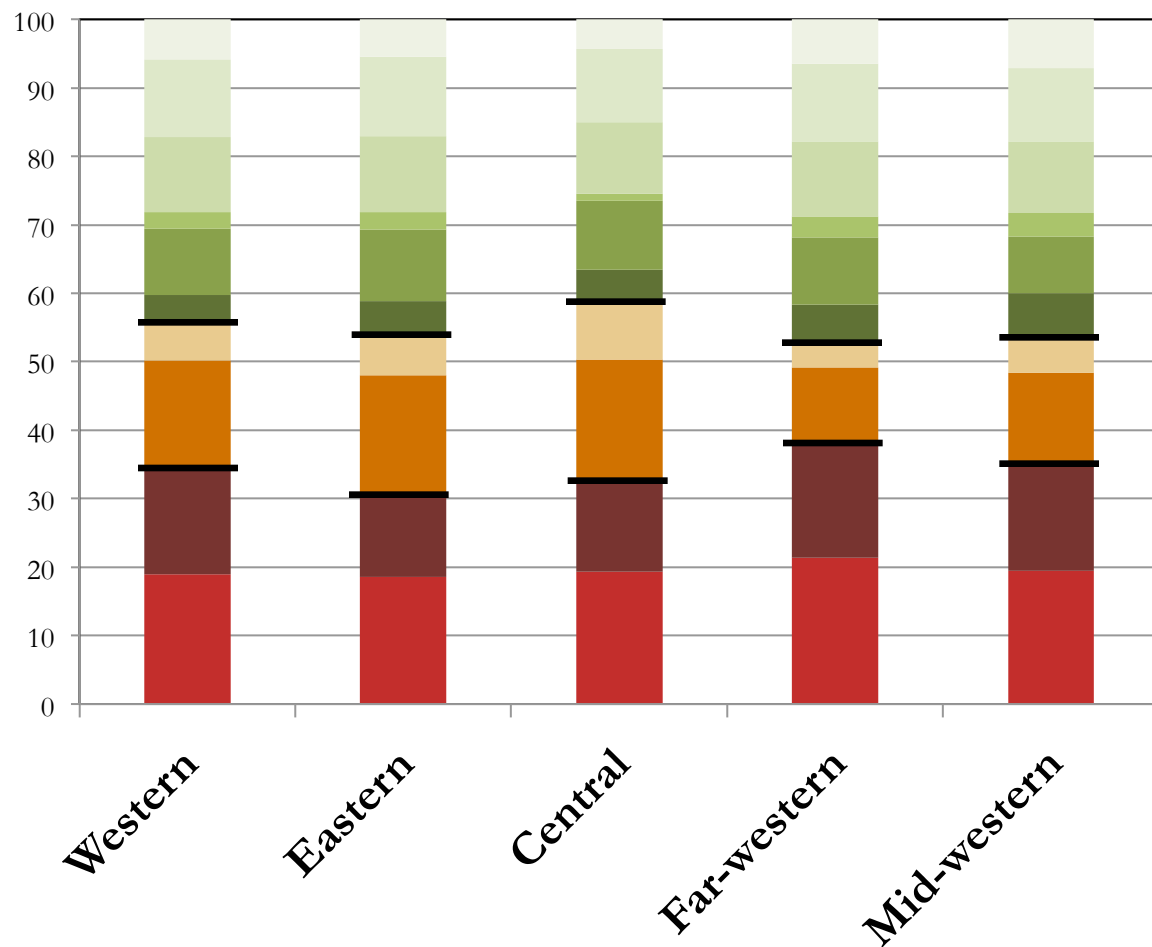


# Decomposition By Region (or social group)

– shows inequalities

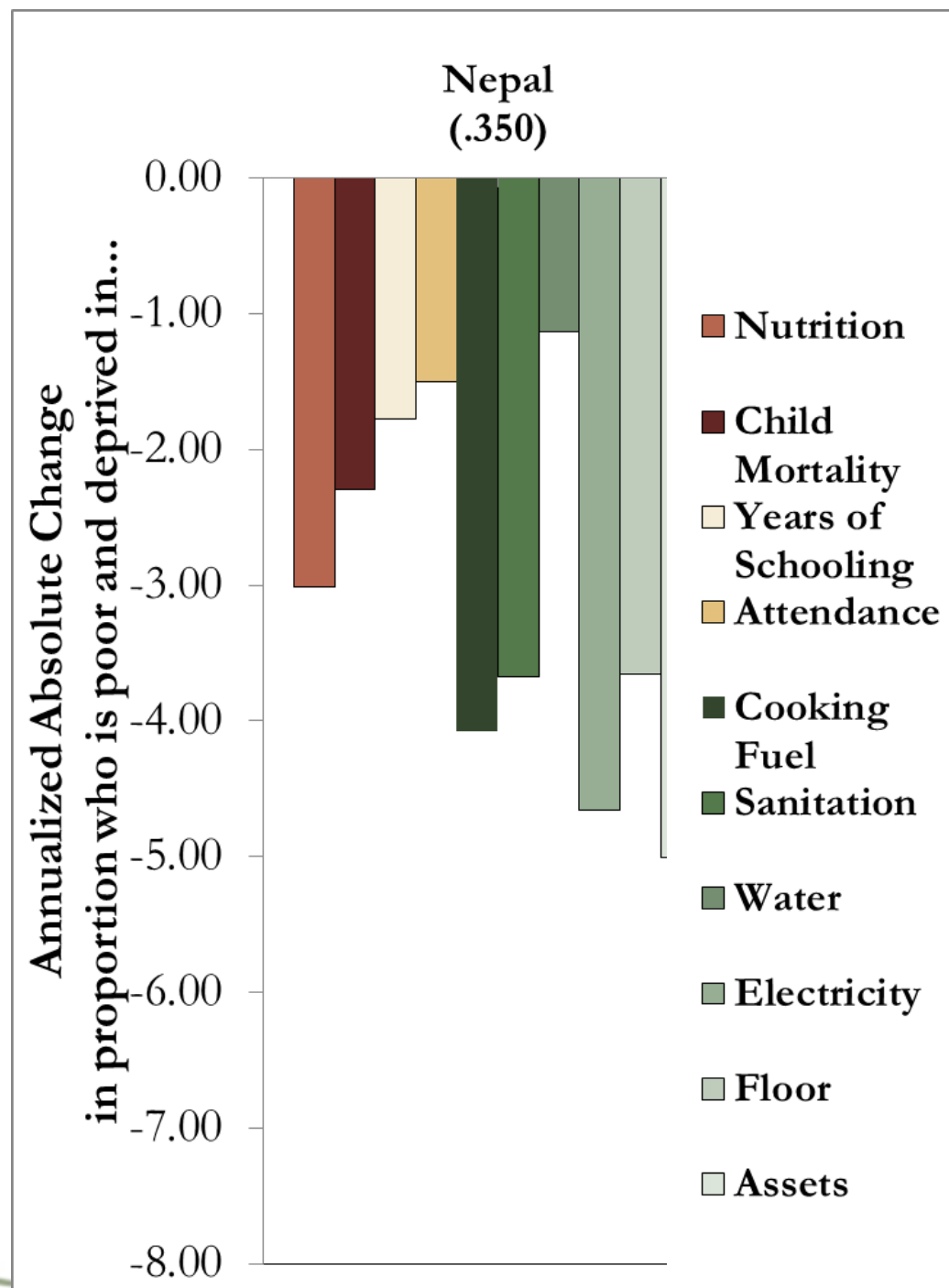


% Contr. To Poverty  $\phi$

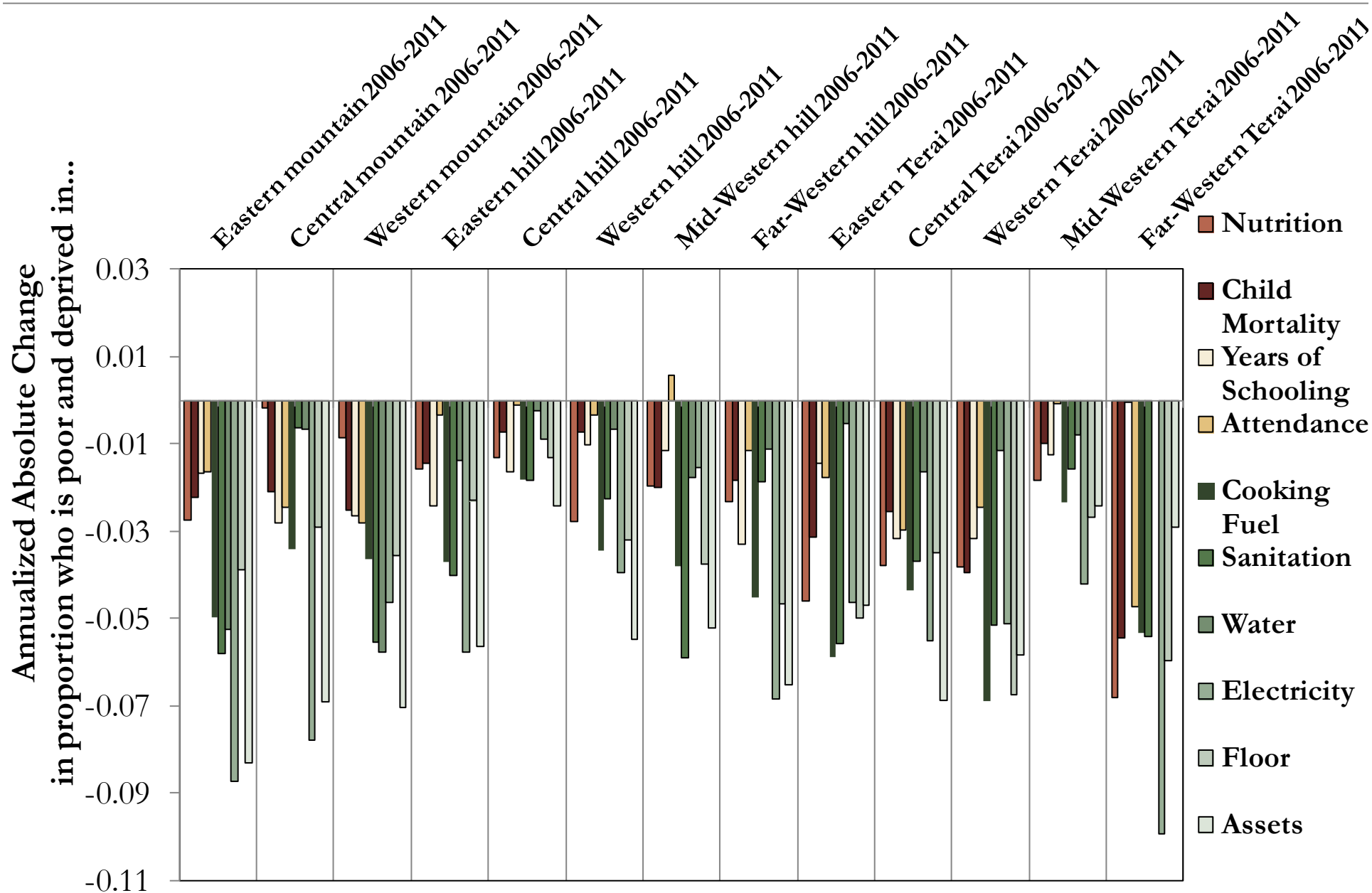


How did MPI go down?

Monitor each indicator



# Indicator Changes by region (Nepal)



**Country Example:**  
**MEXICO**

# Mexico

- Work started in 2006 - Process Discussions, criteria & design of data sources
- **Five Specific Methodological and Calibration proposals received:** Julio Boltvinik, Satya Chakravarty, James Foster & Sabina Alkire, David Gordon, Rubén Hernández and Humberto Soto
- **Consultation with experts:** Bourguignon, Thorbecke, Kakwani, Lustig, Skoufias, Walton, Khander, Reddy, Feres, López-Calva, ... among others.
- **Discussions of proposals**
- Consultation about indicators, thresholds, questions with **public institutions**
- **Survey Design**
- National and international **seminars**
- Finalizing the **methodology & calibration**
- **Data Collection**
- Analysis, and final discussion **results**.
- **Launch** of measure (December 2009)

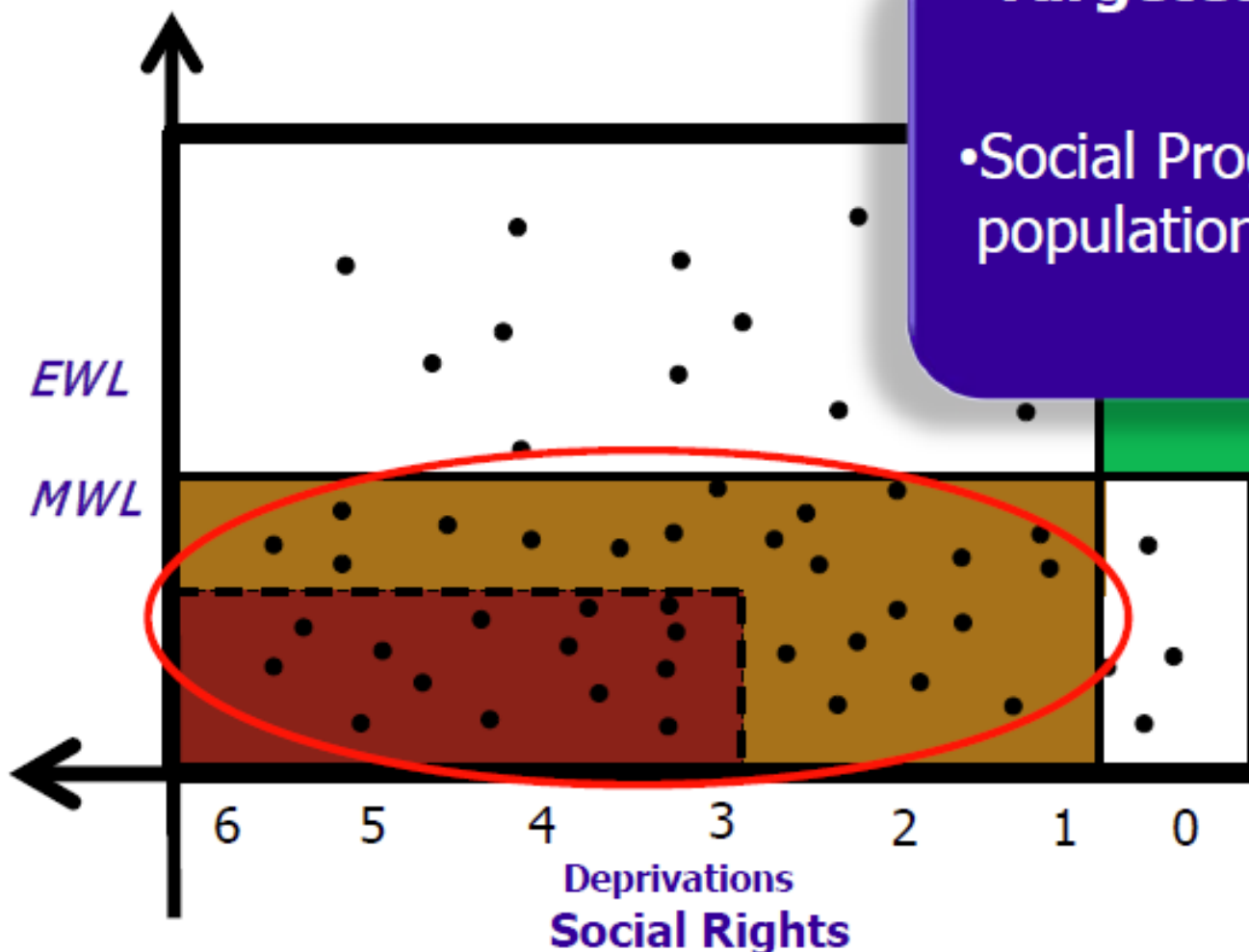
*Based on Gonzalo Hernandez Licona's slides, August 2010*



# What policies should be carried out?

## Targeted policies

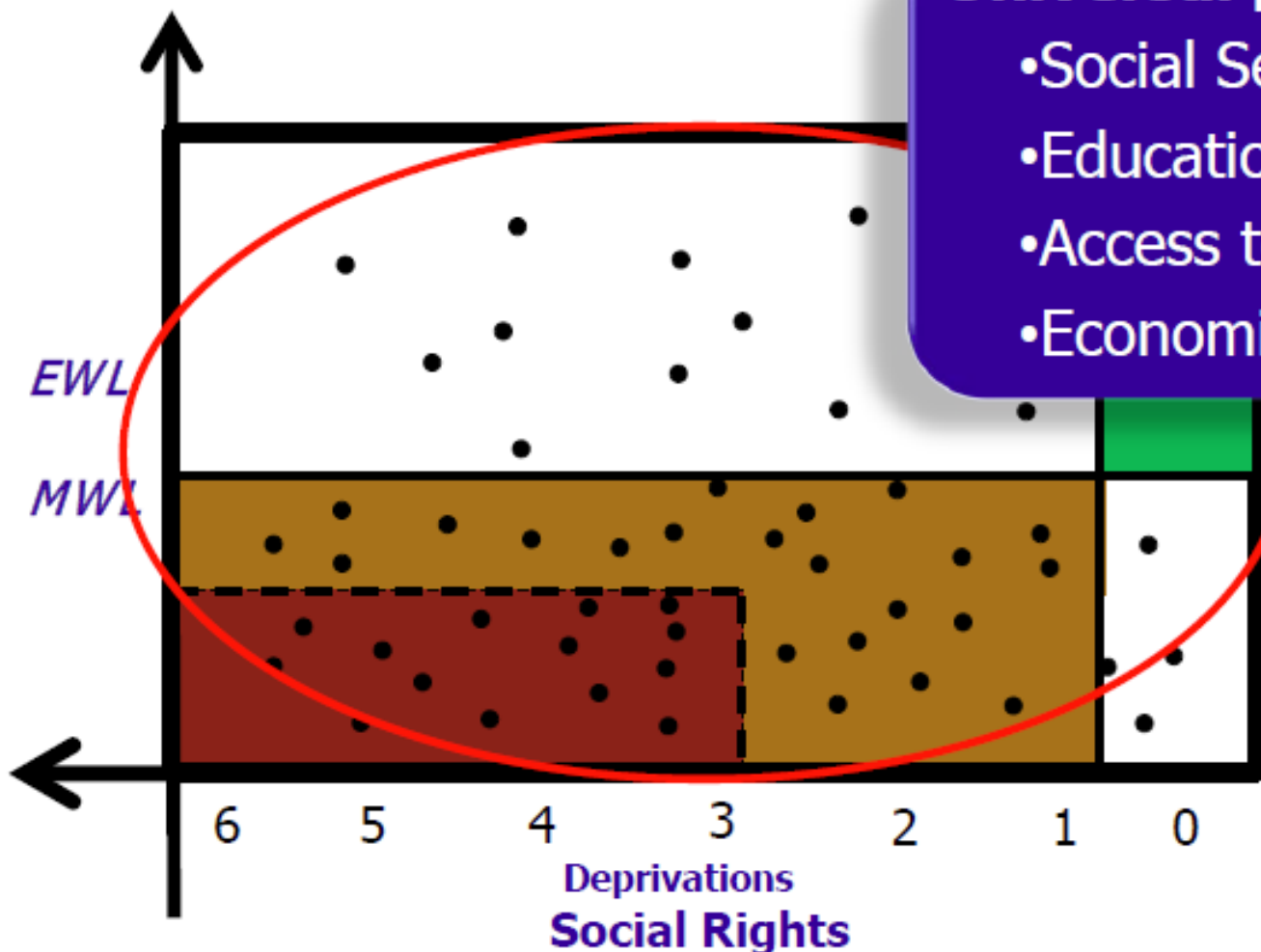
- Social Programs for the population in poverty



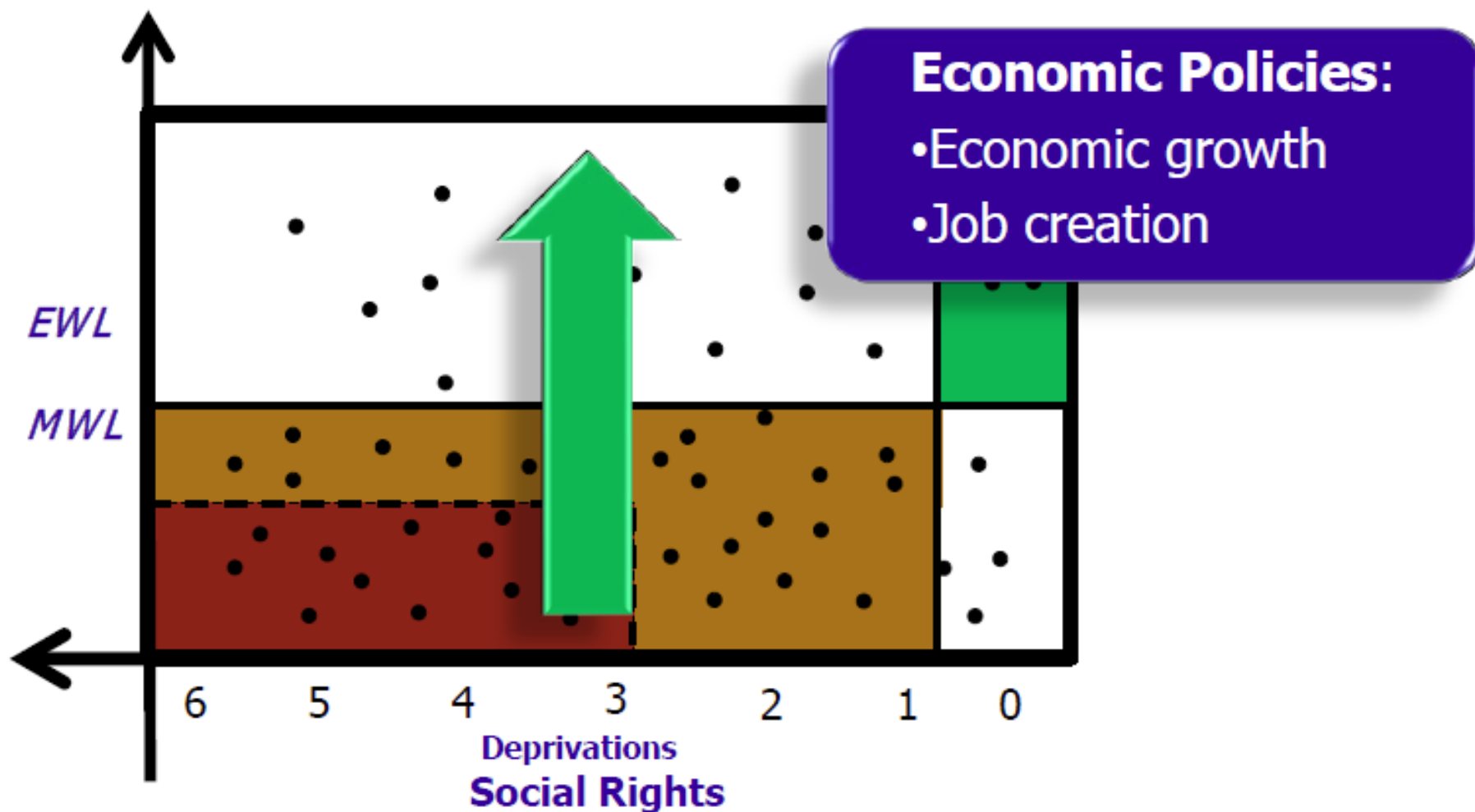
# What policies should be carried out?

## Universal policies

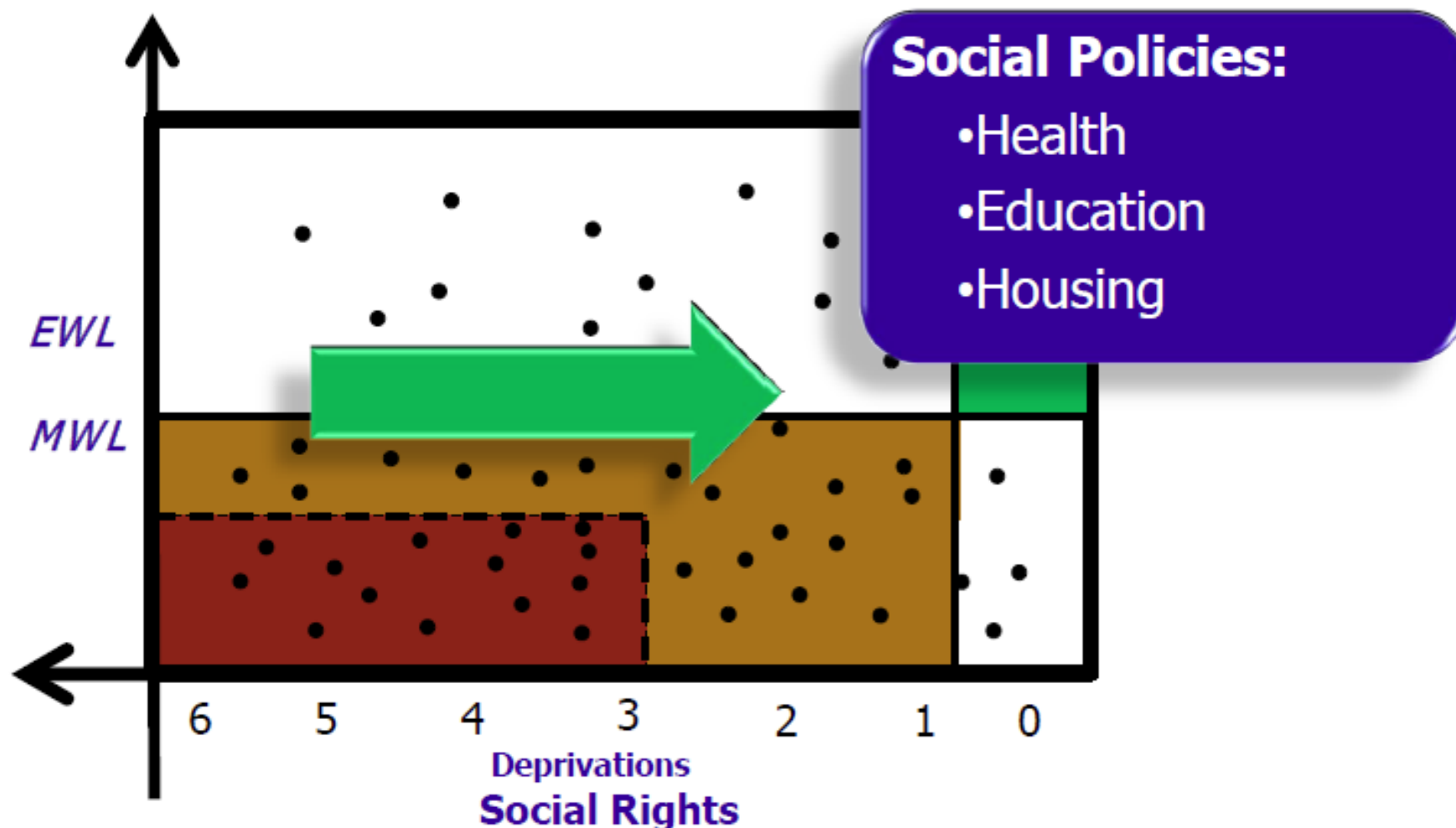
- Social Security
- Education for all
- Access to health services
- Economic growth



# What policies should be carried out?



# What policies should be carried out?



## Using the methodology

- Other Ministries, besides the Ministry of Social Development, understand better their role in reducing poverty in Mexico
- We're starting to evaluate social programs (ex post and ex ante) using this approach.
- Social programs are changing the way they identify their beneficiaries
- The Strategy for poorer municipalities is using the methodology to target their programs

## Using the methodology

- By linking social deprivations with poverty, policy recommendations are strengthened.
- It is now possible to evaluate the effect of social policy not only on income poverty but also on specific social deprivations.
- There is a tendency to focus on cash transfers when poverty is measured only with income. Social policies for overcoming poverty should also pursue to universally guarantee social rights.

## Using the methodology

- Since income poverty is influenced by a number of circumstances that social policy cannot control (sometimes the country cannot control), relevant social achievements may remain undetected.

LPTI

ZAP

- Finally, a remarkable feature of the methodology is that it does not only identify poverty (priority), but also it identifies the **whole population without access to social rights**, which is a complete way of looking at public policy.



## Guidelines and criteria (G&C) for identifying poverty



➔ Mandatory application for public institutions

➔ Social programs should consider the indicators of multidimensional poverty

➔ G&C should be incorporated in social programs and evaluation

➔ Flexible G&C according to the programs final goals.

➔ Not all the indicators must be used in identifying targeted population.  
V.gr. **Oportunidades**



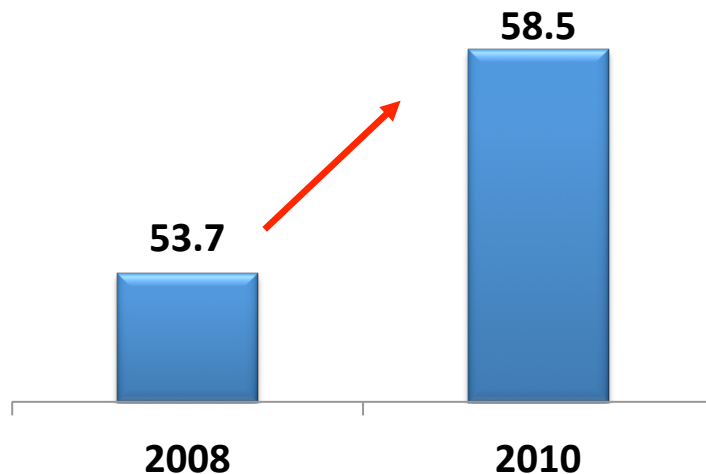
# NATIONAL CRUZADE AGAINST HUNGER

SLIDES BY ENRIQUE GONZÁLEZ TIBURCIO

# 1. Motivation

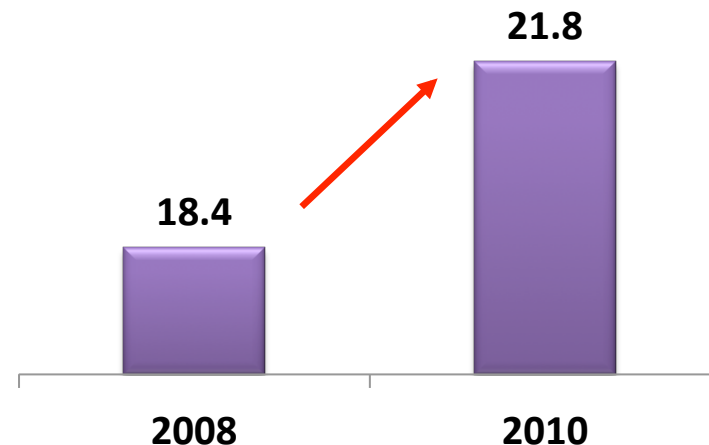
Between 2008 and 2010 income poverty also increased

*Population under the wellbeing line  
2008-2010*



Increase of the population under the wellbeing line: +4.8 million people

*Population under the minimal wellbeing line  
2008-2010*



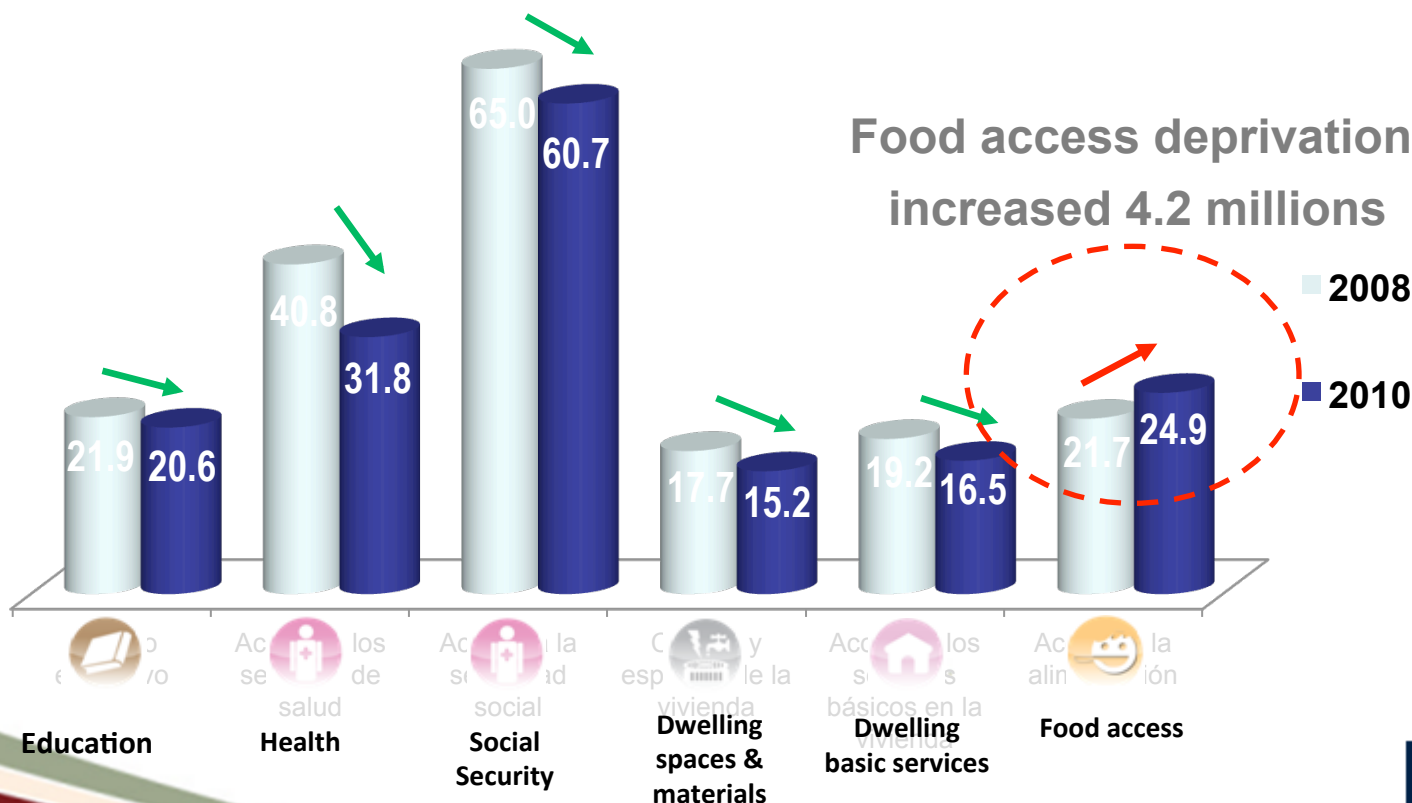
Increase of the population under the minimal wellbeing line: +3.4 million people

Source: CONEVAL

# MOTIVATION

CONEVAL: from 2008 to 2010 five out of six social deprivations decreased, but one increased: access to food

## *Social Deprivations 2008-2010 (% of the total population)*



## 2. TARGET POPULATION

People in  
Extreme Poverty:  
**11.7 Million**  
people

People with food  
access  
deprivation:  
**28 million**  
people

**Target Population of the Crusade:**  
**7.4 million people** in extreme poverty and food  
access deprivation

**Aim 2013: 400 Strategic Municipalities**

**Country Example:**  
**COLOMBIA**

# Colombia

- Work started in 2010
- Strong political will (by both the previous and current President, and by two ministers of Planning)
- Previous President was interested as considerable effort in social policy was being strongly eclipsed by achievements in security issues.
- Current President has decided that poverty reduction is at the centre of his agenda.
- Very capable technical team
- A long history of working with multidimensional measures.
- Consultation process with universities and think-tanks.



A complete strategy for  
the reduction of  
poverty

National Development  
Plan 2010-2014  
“Prosperity for all”

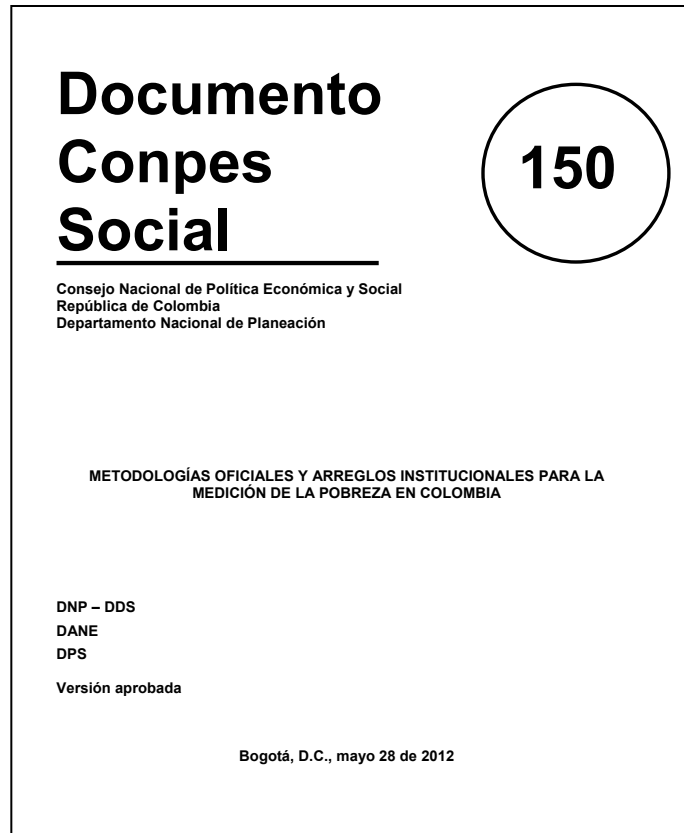
**Our starting point: Improving the instruments and methodologies of poverty measurement**

**Motivation: Designing a strategy for the reduction of poverty and inequality based on a complete approach using income and multidimensional measures**





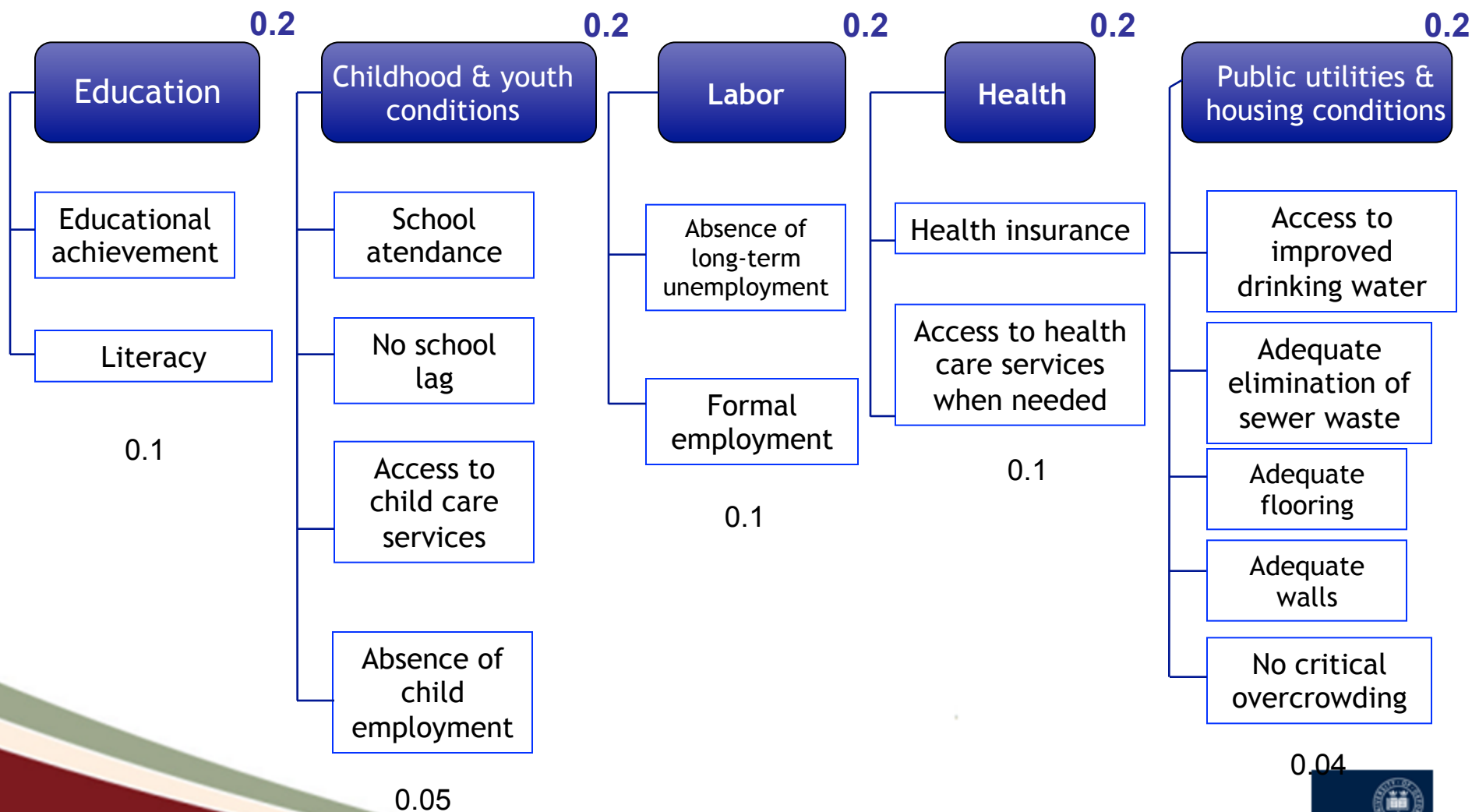
## Institutional agreement on the measurement of poverty



The National Department of Statistics acquired the responsibility of producing the official poverty measurements on a year basis

Technical and methodological decisions are defined at the experts-committee (NPD, DSP, external experts)

## Dimensions (5) & variables (15)



# MPI - Colombia

 - 4 key aspects:

1. Reflects the objectives of social policy
2. Strategically designed for it to include all public policy sectors
3. Practical instrument for monitoring public policy
4. Useful alerts for decision -making at a short notice

# Poverty committee

## Coordinating and monitoring poverty reduction

### ■ Leaders

- Counselor for the Presidency
- Social Prosperity
- National Planning Department

### ■ Permanent members

- Ministry of Health
- Ministry of Labor
- Ministry of Housing
- Ministry of Agriculture
- Ministry of Education
- Ministry of Finance



**MANDATORY PRESENCE**  
The President of Colombia

## Colombia: clear national targets in MD Poverty reduction by dimension and by indicator

Indicator	2008	2014	Difference
Multidimensional Poverty Headcount (IPM-Colombia)	34.7%	22.5%	-12.2%
Absolute number of poor people by IPM	15,415,986	10,701,598	-4,714,388
Absolute number of non-poor people by IPM	29,034,274	36,959,770	7,925,496

Figure from DNP Colombia 8/11

Dimension	Variable	Indicator	Indicator National plan	Baseline (%)	2014 goal (%)
<b>Household education conditions</b>	Educational achievement (0.1)	Average education level for people 15 and older living in a household	Average education level for people 15 to 24 years old	9.15	9.8
	Literacy (0.1)	Percentage of people living in a household 15 and older who know how to read and write	illiteracy rate	6.7	5.7
<b>Childhood and youth conditions</b>	School attendance (0.05)	Percentage of children between the ages of 6 and 16 that attend school.	Gross and net coverage rate	79.27	91.0
	No school lag (0.05)	Percentage of children and youths (7-17 years old) within the household that are not suffering from school lag (according to the national norm)	Desertion rate in initial school, primary and high school	5.15	3.8
	Access to child care services (0.05)	Percentage of children between the ages of 0 and 5 who simultaneously have access to health, nutrition and education.	No National plan indicator for this variable		
	Children not working (0.05)	Percentage of children not subject to child labor.	Share of child and youth out of the labor market		35
<b>Employment</b>	No one in long term unemployment (0.1)	Percentage of a household's EAP that is not facing long term unemployment (more than 12 months)	National unemployment rate	12	8.9
	Formal employment (0.1)	Percentage of a household's EAP that is employed and affiliated to a pension fund (formality proxy)	Share of population affiliated to the pension system	32	42

Dimension	Variable	Indicator	Indicator National plan	Baseline (%)	Goal 2014 (%)
<b>Health</b>	Health insurance (0.1)	Percentage of household members over the age of 5 that are insured by the Social Security Health System	Subsidised regime coverage	92.27	100
	Access to health services (0.1)	Percentage of people within the household that has access to a health institution in case of need	No national plan indicator for this variable		
<b>Access to public utilities and housing conditions</b>	Access to water source (0.04)	Urban household: considered deprived if lacking public water system Rural household: considered deprived when the water used for the preparation of food is obtained from wells, rainwater, spring source, water tank, water carrier or other sources.	Coverage of pipe water	91.79	94.12
	Adequate elimination of sewer waste (0.04)	Urban household: considered deprived if lacking public sewer system Rural household: considered deprived if it uses a toilet without a sewer connection, a latrine or it simply do not have a sewage system	Share of households deprived on the materials of the housing	87.48	90.76
	Adequate floors (0.04)	Lacking materials (dirt floors)			
	Adequate external walls (0.04)	A urban household is considered deprived when the exterior walls are built of untreated wood, boards, planks, guadua or other vegetable, zinc, cloth, cardboard, waste material or when no exterior walls exist. A rural household is considered deprived when exterior walls are built of guadua or another vegetable, zinc, cloth, cardboard, waste materials or if no exterior walls exist.			
	No critical overcrowding (0.04)	Number of people sleeping per room, excluding the kitchen, bathroom and garage.	Share of households overcrowded	12.50	8.20

# Sectoral goals For accomplishing the strategy

Pobreza	Línea Base PND 2008	Dato 2011	Dato 2012	Análisis	Goal	
<b>MPI (Multidimensional Poverty)</b>	<b>34.7%</b>	<b>29.4%</b>	<b>27.0%</b>	●	<b>22.5%</b>	
A <sup>(1)</sup> <ul style="list-style-type: none"> <li>Educational achievement (≥15 yrs)</li> <li>Literacy (≥15 yrs)</li> </ul>	58.8%	54.6%	53.1%	●	52.8%	
	14.2%	12.0%	12.1%	● ★	12.0%	
B <sup>(2)</sup> <ul style="list-style-type: none"> <li>School attendance (6-16)</li> <li>No school lag (7-17)</li> <li>Access to child care services (0-5)</li> <li>Children not working (12-17)</li> </ul>	5.4%	4.8%	4.1%	●	3.5%	***
	33.4%	34.1%	33.3%	●	33.1%	
	12.1%	10.8%	9.4%	●	10.6%	***
	5.5%	4.5%	3.7%	●	2.9%	***
C <sup>(3)</sup> <ul style="list-style-type: none"> <li>Long-term unemployment</li> <li>Formal employment</li> </ul>	9.6%	9.1%	10.0%	● ★	9.3%	***
	80.6%	80.4%	80.0%	●	74.7%	
D <sup>(4)</sup> <ul style="list-style-type: none"> <li>Health insurance</li> <li>Access to health services</li> </ul>	24.2%	19.0%	17.9%	●	0.5%	
	8.9%	8.2%	6.6%	●	2.4%	***
E <sup>(5)</sup> <ul style="list-style-type: none"> <li>Access to water source</li> <li>Adequate sewage system</li> <li>Adequate floors</li> <li>Adequate external walls</li> <li>No critical overcrowding</li> </ul>	12.9%	12.0%	12.3%	● ★	10.9%	
	14.1%	14.5%	12.1%	●	11.3%	***
	7.5%	6.3%	5.9%	●	5.6%	
	3.1%	3.2%	2.2%	●	2.1%	***
	15.7%	14.2%	13.1%	●	8.4%	***

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



If every ministry target beneficiaries accordingly and spends the committed resources, the official goal will be achieved

**The MPI will decrease from 34.6% in 2008  
to 22% 2014**  
(more than 3 million people out of poverty)



# A useful tool for public policy implementation



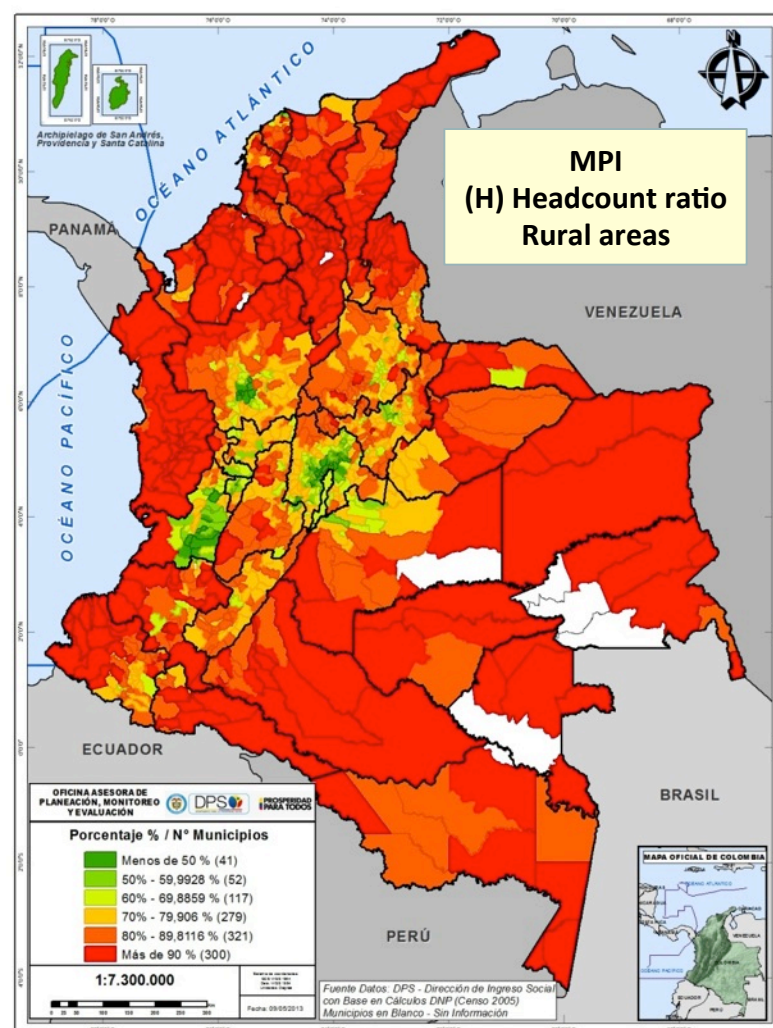
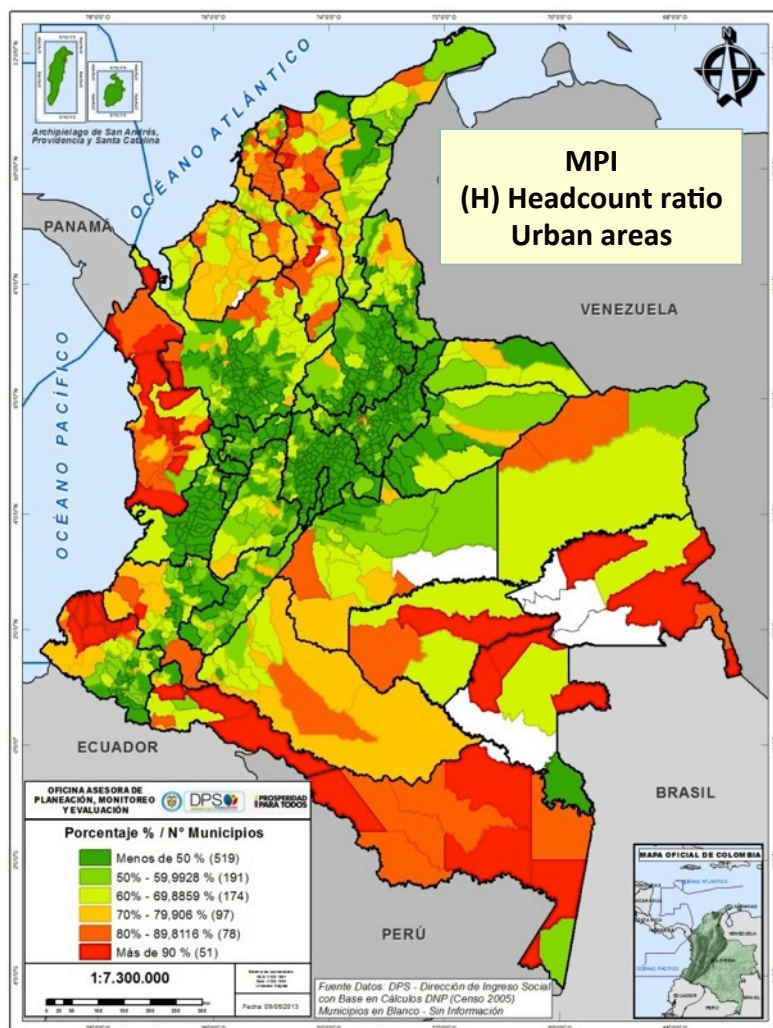
## Applications

1

# Geographical Targeting (Municipal Poverty Maps)

# Municipal MPI Colombia

## Headcount ratio, urban-rural areas, 2005



MPI proxy based on Census Data 2005

*Más Familias  
en Acción*



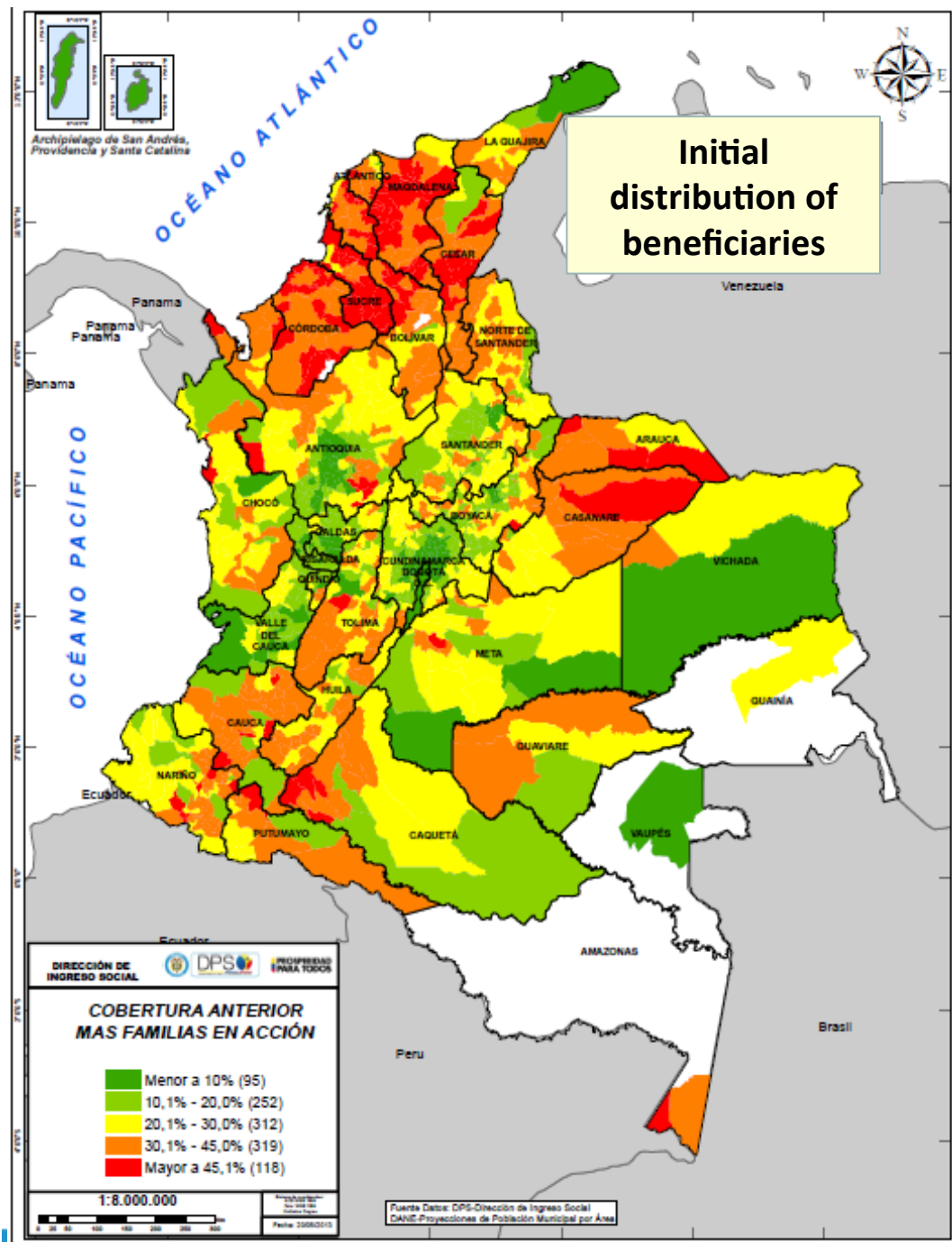
# An example of geographical targeting using MPI

Conditional Cash Transfer  
Program

“Más Familias en  
Acción”

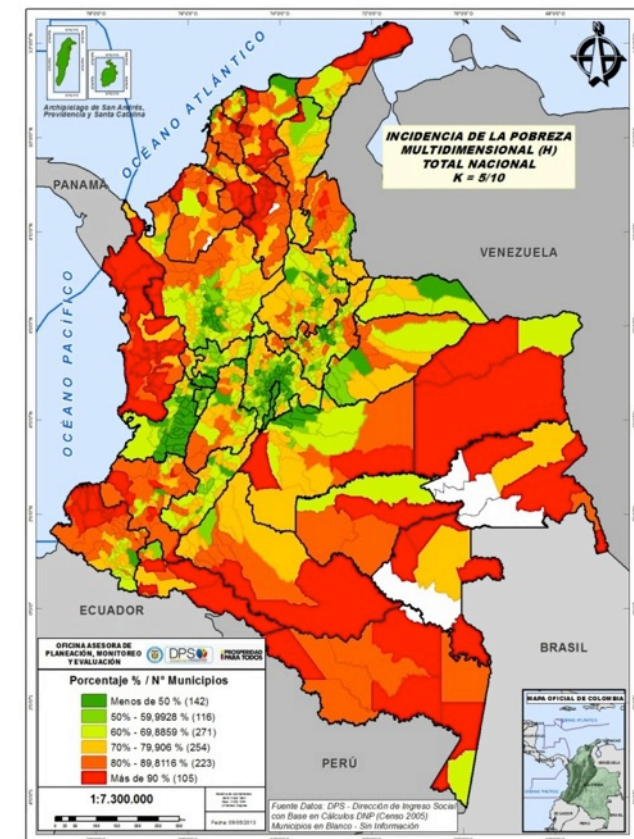
2.7 million families

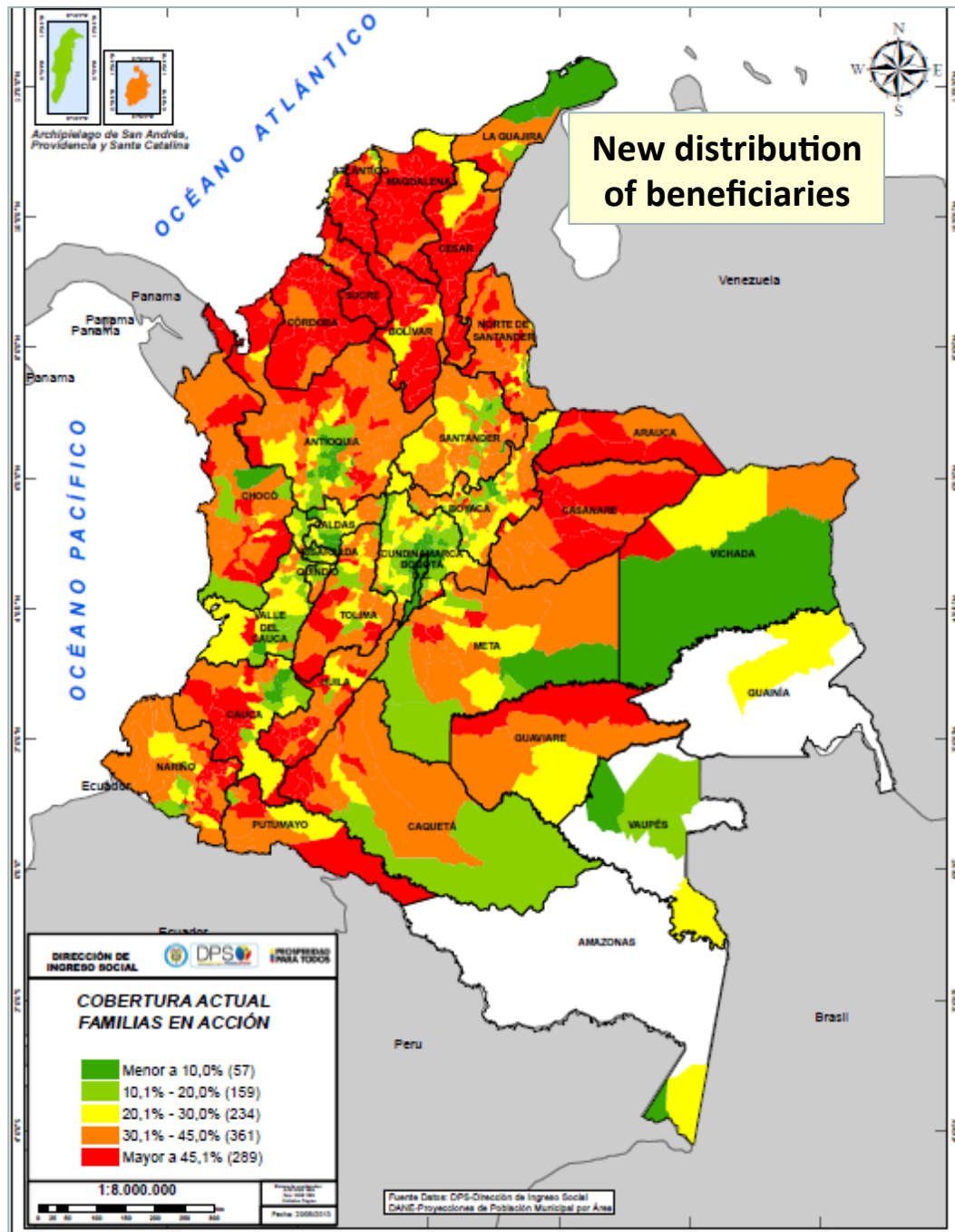




## Re targeting program's beneficiaries: approximating to municipal MPI

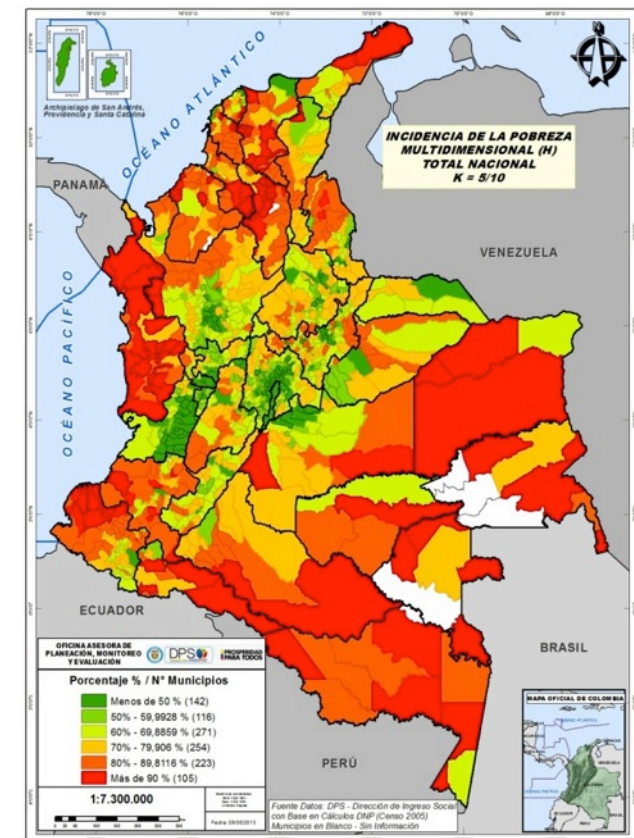
### National - MPI



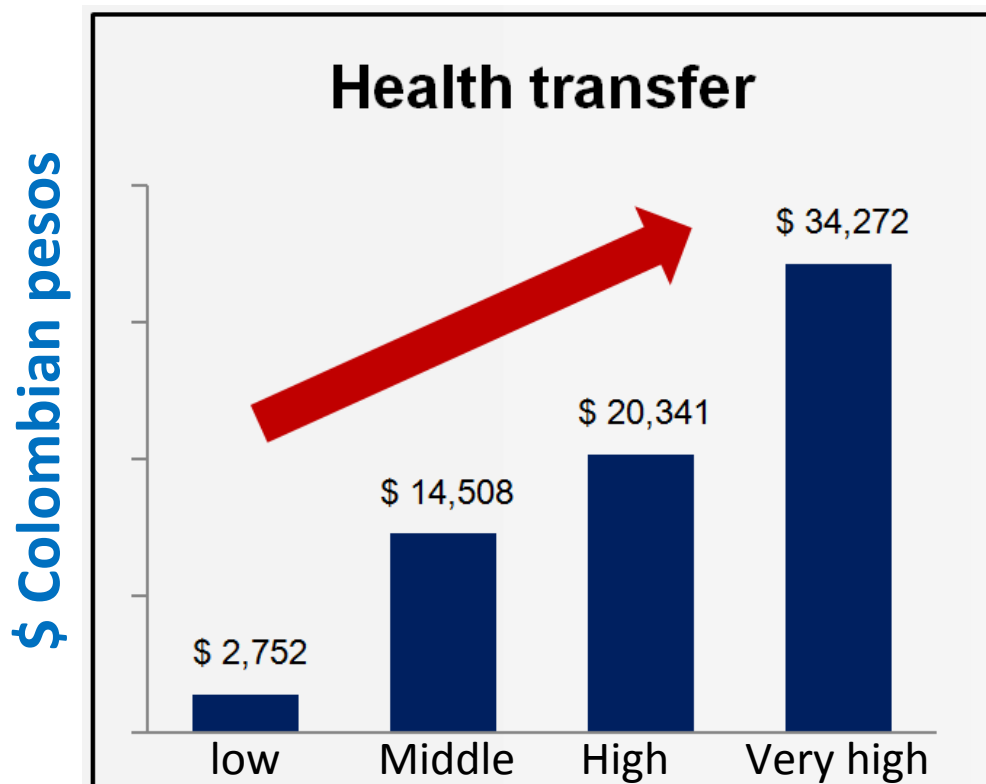


## Re targeting program's beneficiaries: approximating to municipal MPI

### National - MPI



## One example



**MPI Municipal Head Count Ratio**

Differentiating  
transfer amounts  
according to  
municipal MPI

Higher amounts  
on the poorer  
and rural areas



# 2

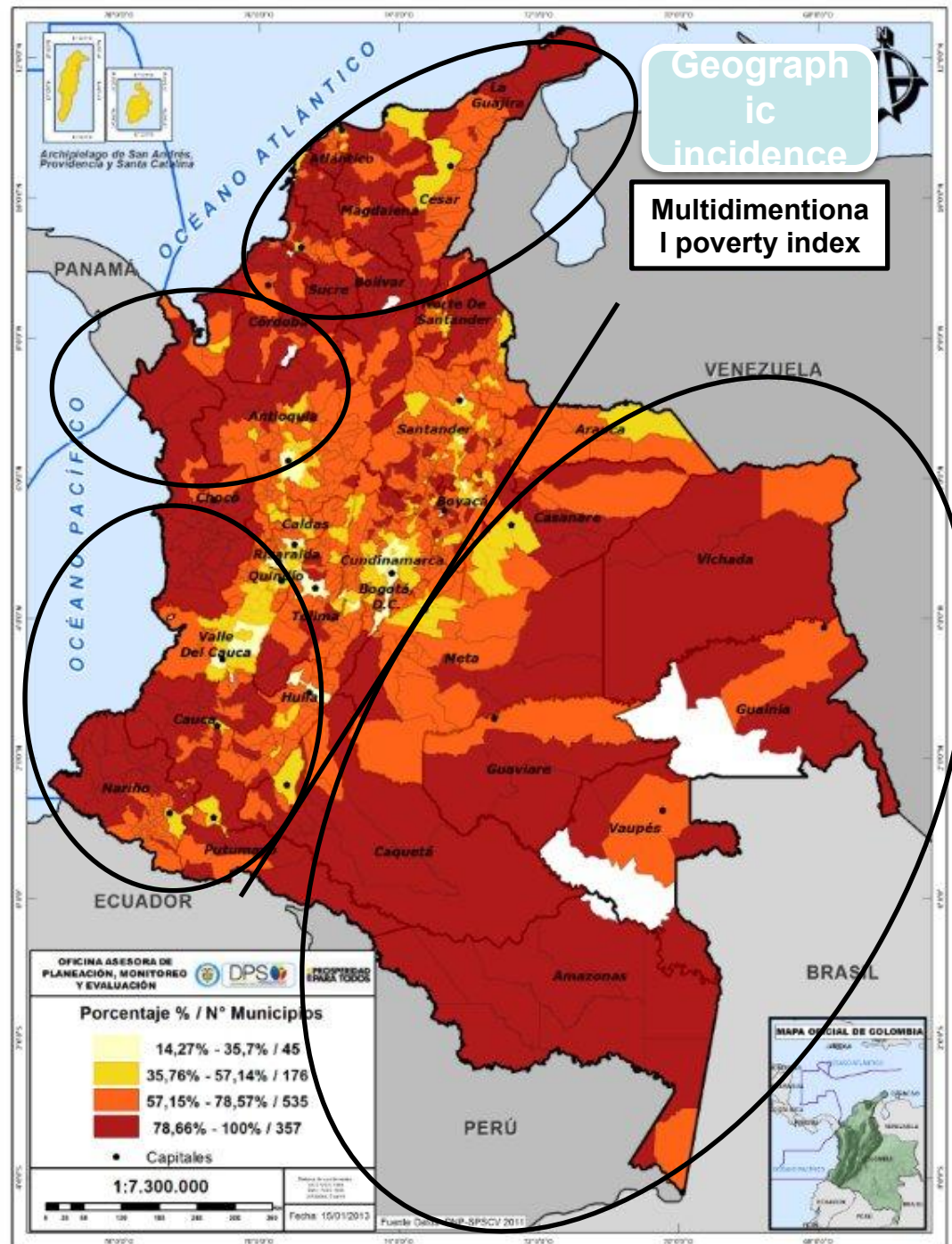
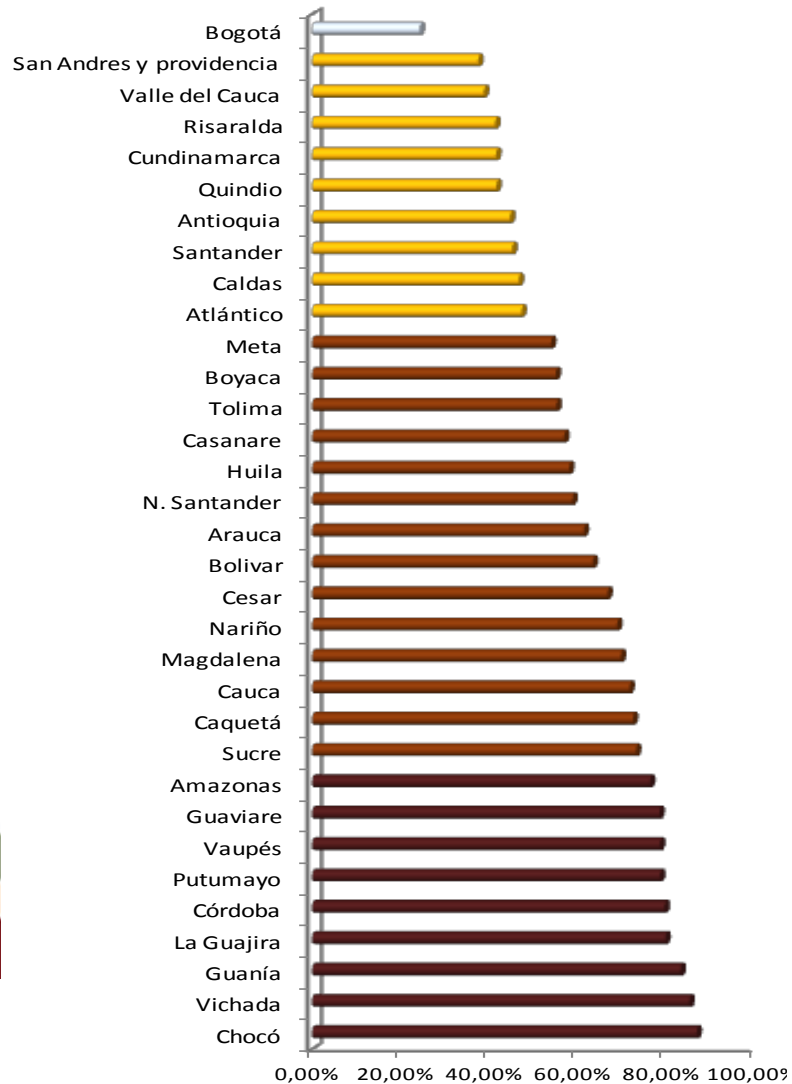
## Targeting beneficiaries according to specific dimension deprivations

# Targeting beneficiaries identifying:

**Where?  
What?  
To whom?**

**Using MPI**

## Different types of social programs depending on multidimensional poverty incidence



# Methodology for measuring “graduation” from extreme poverty using MPI

## Safety Net Program



A family is “graduated” from



if:

Sufficient condition:



&



Not in extreme income  
poverty

Not multidimensionally  
poor

# 4

## Adjusted - MPI for indigenous groups





- Revising the MPI (missing dimensions, cutoffs or weights) in order to adapt the index to the conditions of indigenous population of Colombia



- The objective is to have a pertinent MPI useful for the design of public policy targeting this population





Centre for Bhutan Studies

# The Bhutan Gross National Happiness Index



The Centre for Bhutan Studies  
2011











**Bhutan**

**Gross  
National  
Happiness**

**Nine  
Domains**

