

Tracking and Tackling Inequality: Statistics to track Inclusive Growth in Non-Monetary Spaces

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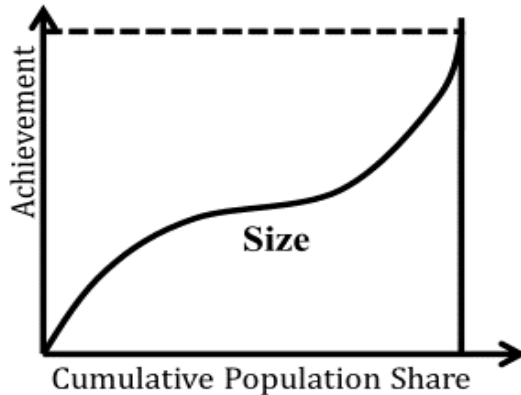
Valérie, Madagascar



On Measurement:

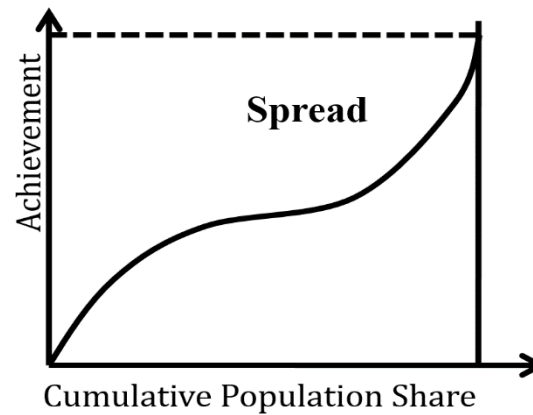
Well-being

Size



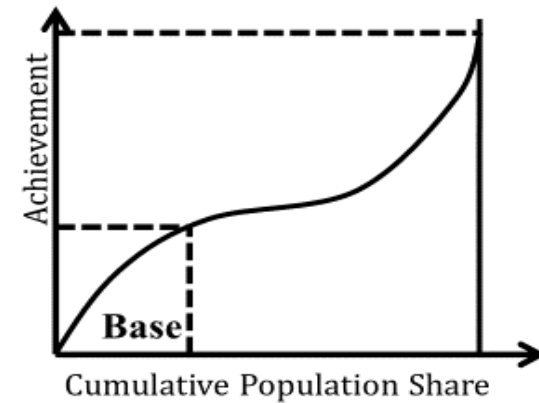
Inequality

Spread



Poverty

Base

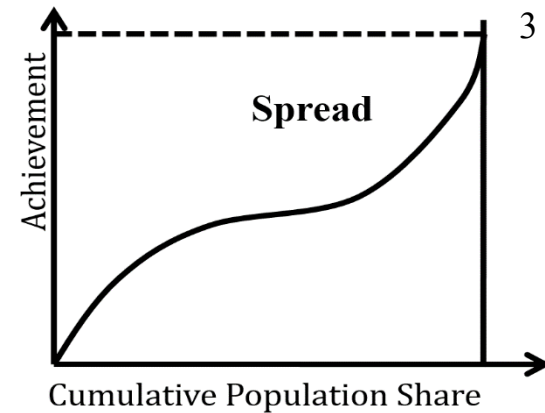


Foster, J. E., Seth S., Lokshin, M., and Sajaia Z. (2013). *A Unified Approach to Measuring Poverty and Inequality: Theory and Practice*. The World Bank.

Alkire, S. (2016) "Measures of Human Development: Key concepts and properties." *OPHI Working Paper 107*, University of Oxford.

On Inequality?

- **Sustainable Development Goal 10.**
Reduce inequality within and among countries



- **SDG Target 10.1** By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average
 - “The average income growth among the bottom 40%” (World Bank Group *Global Monitoring Report 2015/2016*, 47).
 - The Atkinson Commission Report *Monitoring Global Poverty* (October 2016) details **data needs** for improved monetary (and non-monetary) assessments of the **lower sections of the distribution.**

MONITORING GLOBAL POVERTY

Report of the Commission
on Global Poverty

On Policy:

Policies responding to inequality focus less on reducing measured inequality than on ‘making growth more inclusive’ (B40).

In measurement terms, focus on the ‘base’, yet go beyond monetary poverty:

- To include middle class (higher cutoff)
- To reflect non-monetary dimensions

UNSG Report December 2014:

2.1 Shared ambitions for a shared future:

50. All contributions underlined that we should continue the march of the MDGs. But they have also stressed that Member States will need to fill key **sustainable development gaps left by the MDGs**, such as the **multi-dimensional aspects of poverty**, decent work for young people, social protection and labour rights for all.

4.1 Financing our future:

100. **Levels of concessionality** should take into account different development stages, circumstances and **multiple dimensions of poverty**, and the particular type of investment made.

5.1 Measuring the new dynamics:

135. Member States have recognized the importance of building on existing initiatives to develop measurements of progressThese metrics must be squarely focused on measuring social progress, human wellbeing, justice, security, equality, and sustainability. **Poverty measures should reflect the multi-dimensional nature of poverty**.

69th Session of UN General Assembly

A resolution of the UNGA (A/RES/69/238) on 19 December 2014 reasserted the need for multidimensional measures as a necessary conceptual framework for the global community to measure and tackle extreme poverty.

5. [UNGA] ***Underlines*** the need to better reflect the multidimensional nature of development and poverty, as well as the importance of developing a common understanding among Member States and other stakeholders of that **multidimensionality** and reflecting it in the context of the post-2015 development agenda, and in this regard invites Member States, supported by the international community, to consider **developing complementary measurements**, including methodologies and indicators for measuring human development, **that better reflect that multidimensionality.**

Financing for Development 2015

May 6 2015 Addis Ababa Accord:

119. We further call on the United Nations, in consultation with the IFIs to develop **transparent measurements of progress** on sustainable development that complement GDP, building on existing initiatives. These should **recognize the multi-dimensional nature of poverty** and the social, economic, and environmental dimensions of domestic output. We will also support statistical capacity building in developing countries. We agree to develop and implement tools to monitor sustainable development impacts for different economic activities, including for sustainable tourism.

The Addis Ababa Accord of the Third International Conference on Financing for Development, Revised Draft, 6 May 2015

Transforming Our World (SDGs) 2015

Target 1.2: by 2030, reduce at least by half the proportion of men, women and children of all ages **living in poverty in all its dimensions** according to national definitions.

Preamble Sept 2015:

The interlinkages and integrated nature of the Sustainable Development Goals are of crucial importance .

Preamble. We recognise that **eradicating poverty in all its forms and dimensions**, including extreme poverty, is the greatest global challenge and an indispensable requirement for sustainable development.

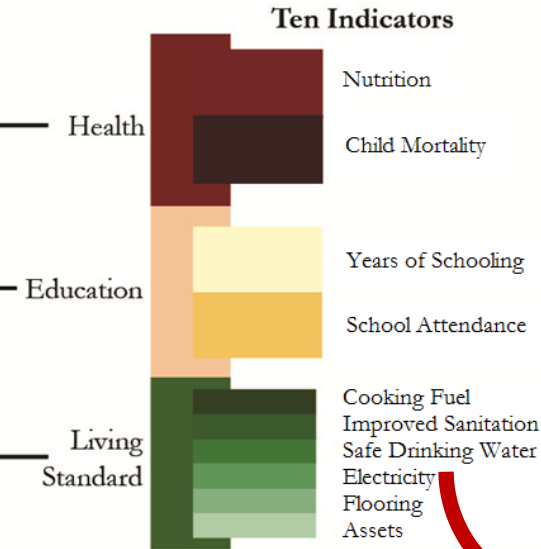
Atkinson Report 2016: Commission on Global Poverty

Recommendation 18: The World Bank should establish its own requirements with regard to the measurement of **nonmonetary poverty**, for inclusion in the Complementary Indicators (including the overlapping poverty measure) and in other World Bank uses, and ensure that these are fully represented in the activities of the international statistical system, particularly with regard to the proposed SDG indicators.

Recommendation 19: The Complementary Indicators should include a multidimensioned poverty indicator based on the counting approach.

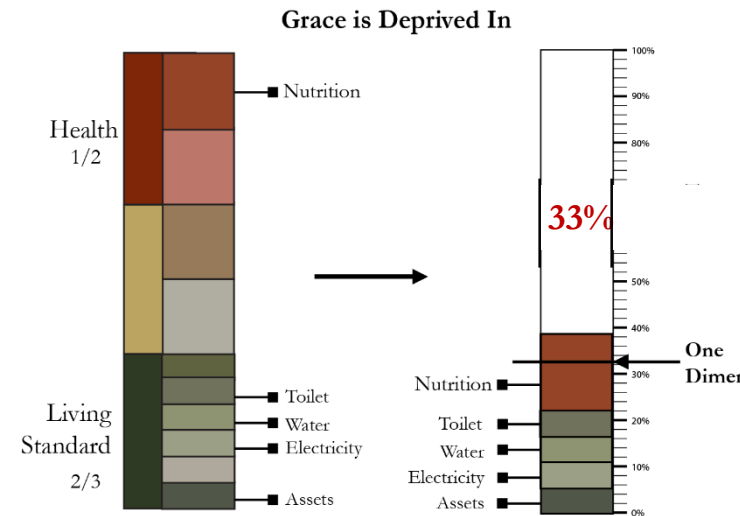
Methodology for the National and Global MPIs

1. Select Indicators, Cutoffs, Values

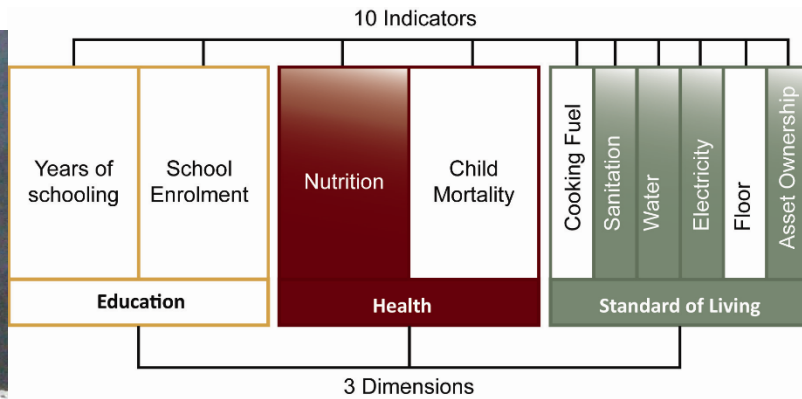


4. Use: MPI, Incidence Intensity & Composition

3. Identify who is poor



2. Build a deprivation score for each person



The MPI (Alkire-Foster)

The MPI is the product of two components:

$$\text{MPI} = H \times A$$

- 1) *Incidence* $\sim H$ \sim the percentage of people who are poor.
- 2) *Intensity* $\sim A$ \sim the average percentage of dimensions in which poor people are deprived

The MPI is can be decomposed by **groups** &
broken down by **indicators**

Alkire and Foster *Journal of Public Economics* 2011

MPI and consistent sub & partial indices

Statistical methods include:

Standard errors and confidence intervals for all statistics

Statistical inference for all comparisons

Validation for component indicators, alone and jointly

Robustness tests for cutoffs and weights

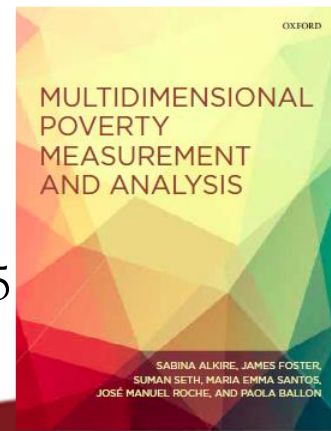
Axiomatic properties include:

Subgroup decomposability and Subgroup consistency

Dimensional breakdown, Dimensional monotonicity

Ordinality, Symmetry, Scale and replication invariance, Normalization, Poverty and Deprivation Focus, Weak Monotonicity, and Weak Deprivation Re-arrangement

Alkire Foster Seth Santos Roche Ballon OUP 2015



Data: Surveys (Global MPI 2016)

Details in: Alkire, Jindra, Robles and Vaz (2016)

Demographic & Health Surveys (DHS - 54)

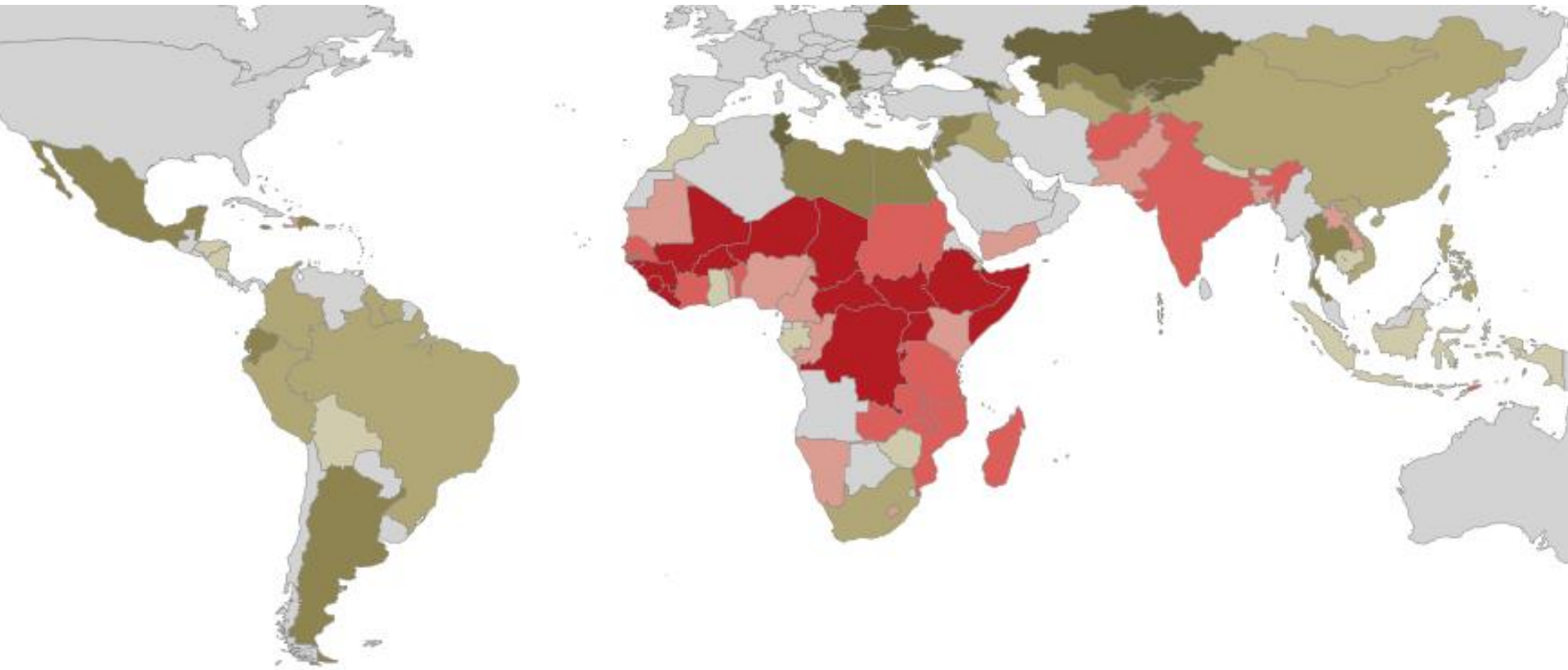
Multiple Indicator Cluster Surveys (MICS - 38)

Pan–Arab Project for Family Health (PAPFAM – 3)

Additionally we used 7 special surveys covering urban Argentina (ENNyS), Brazil (PNAD), China (CFPS), Ecuador (ECV), Jamaica (JSLC), Mexico (ENSANUT) and South Africa (NIDS).

Constraints: Data are 2005-2015. Not all have precisely the same indicators.

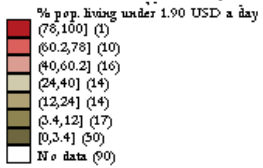
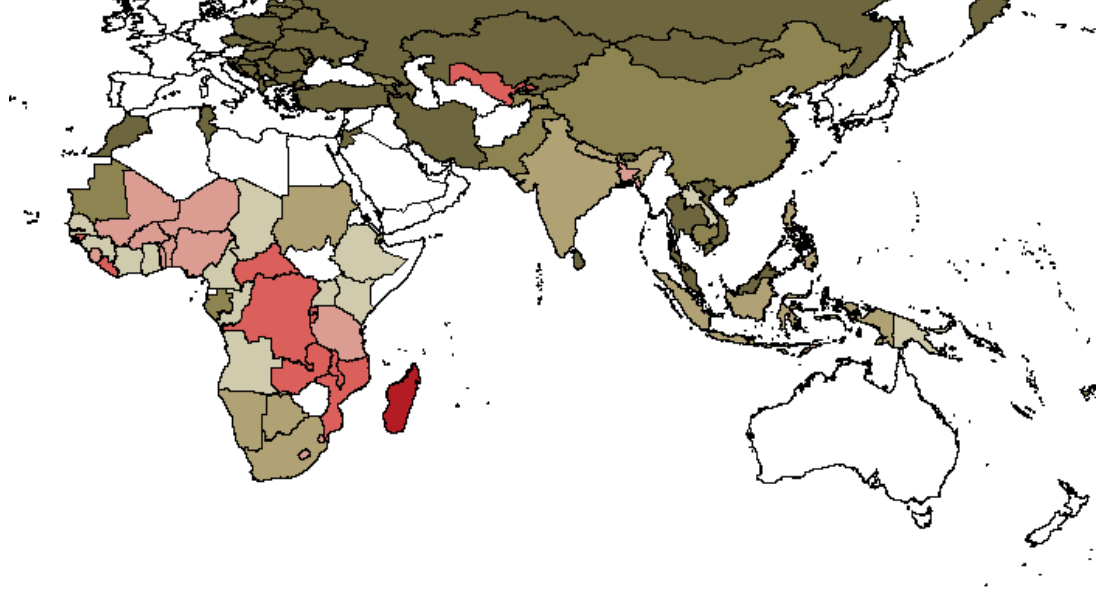
**Across 102 countries and 5.3 billion people,
1.6 billion people are MPI poor**



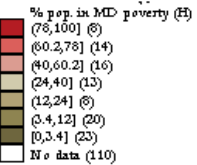
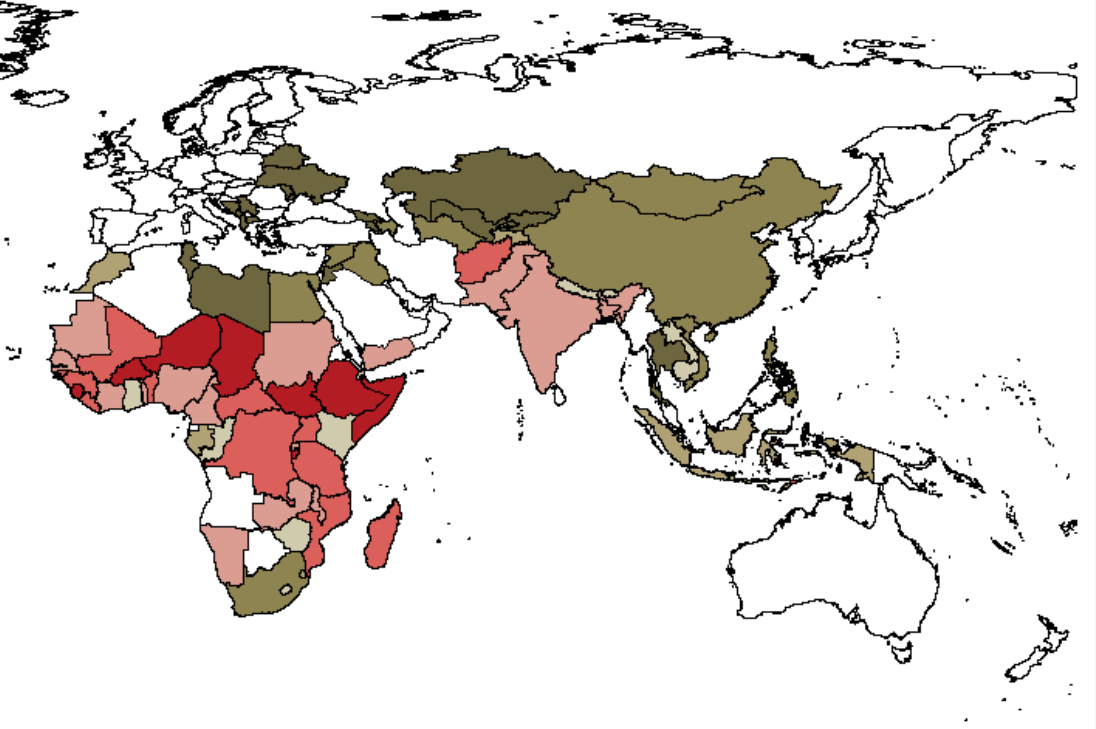
Incidence of MPI – (H)

2012 Population Data

\$1.90/day

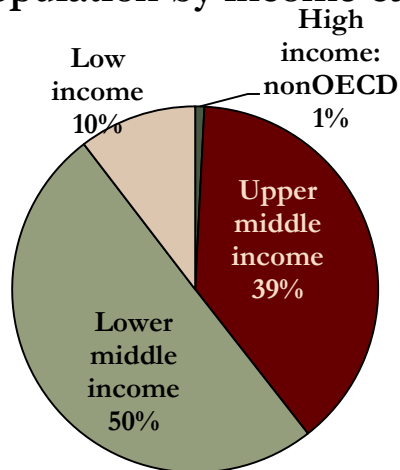


MPI

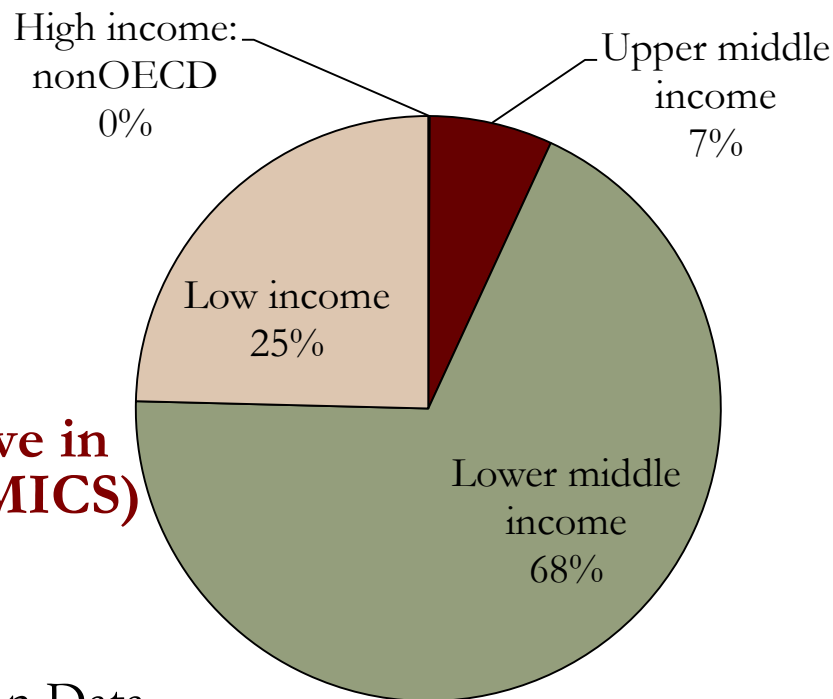


Where MPI poor people live: National Income Category

Total population by income category



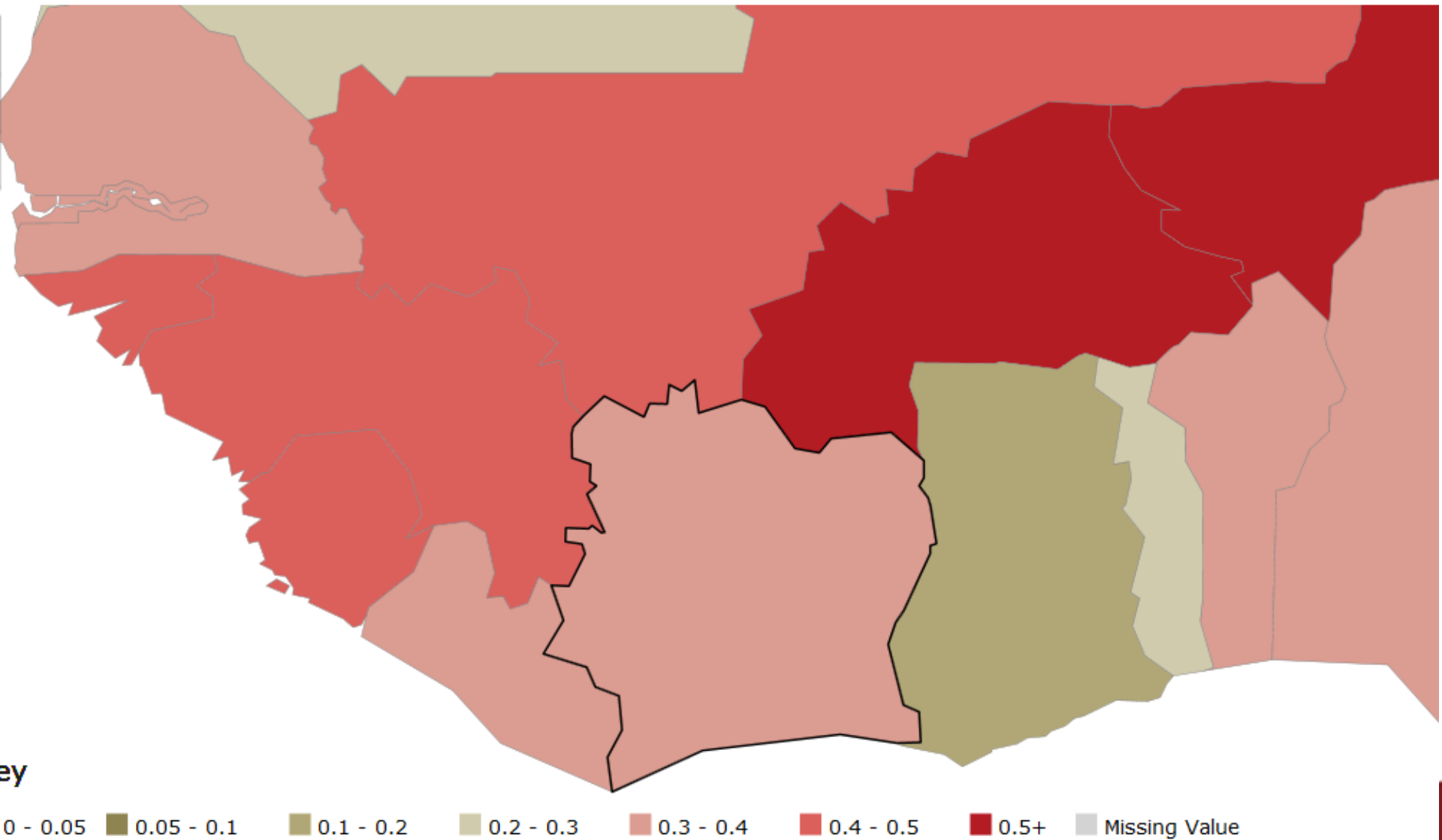
MPI poor people by income category



Most poor people (75%) live in middle-income countries (MICS)

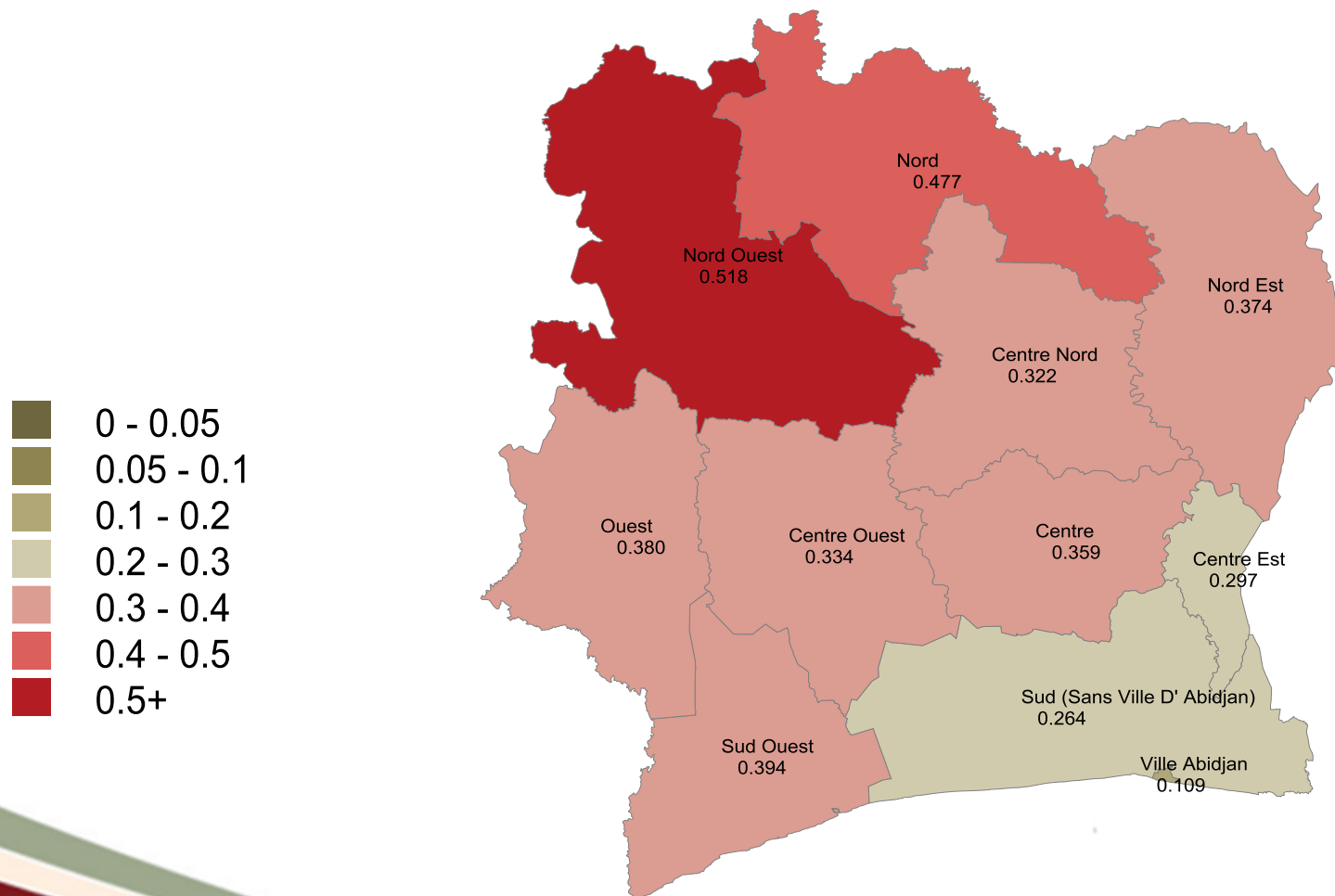
2012 Population Data

Cote d'Ivoire's MPI & its nearest Neighbours (direct measure of MPI)



Disaggregate Cote d'Ivoire's MPI

(by region, population subgroup, age)



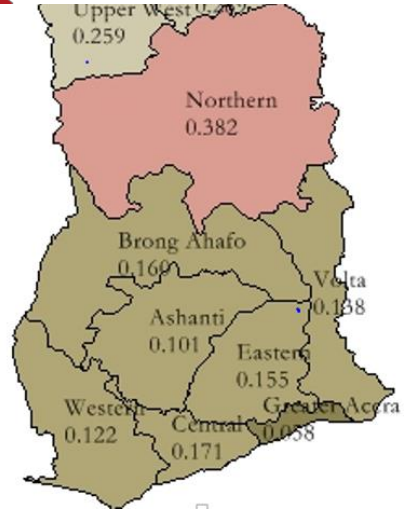
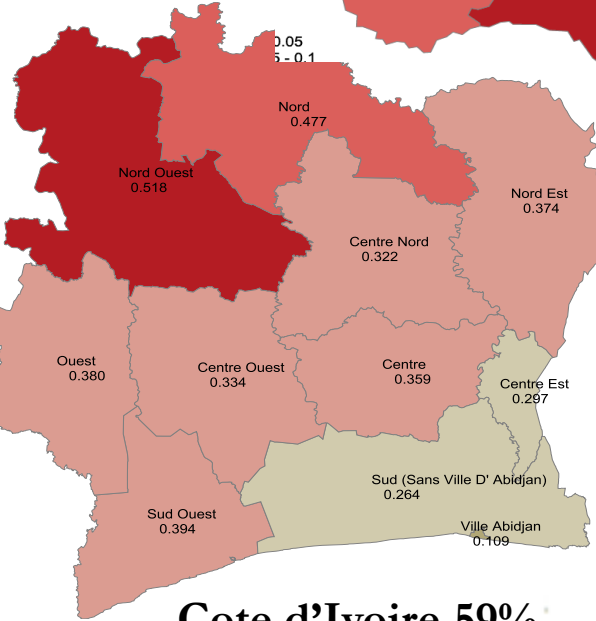
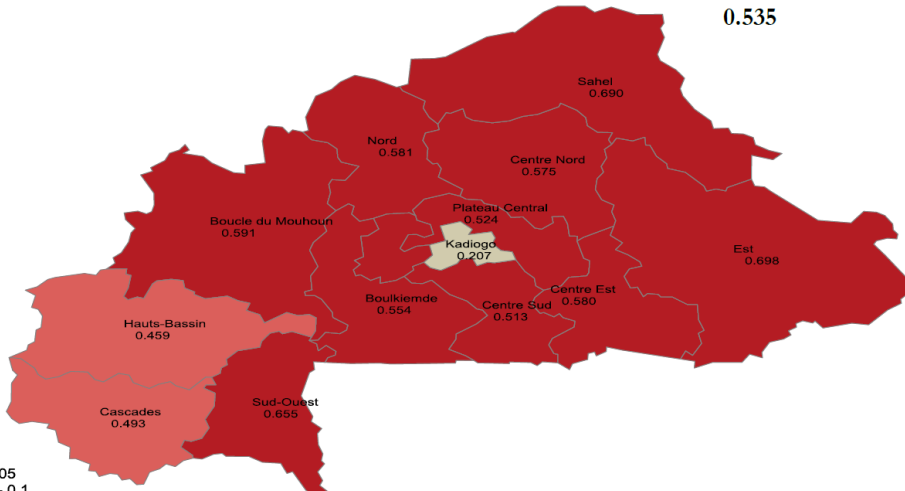
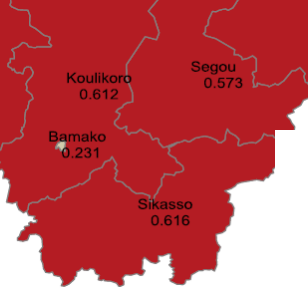
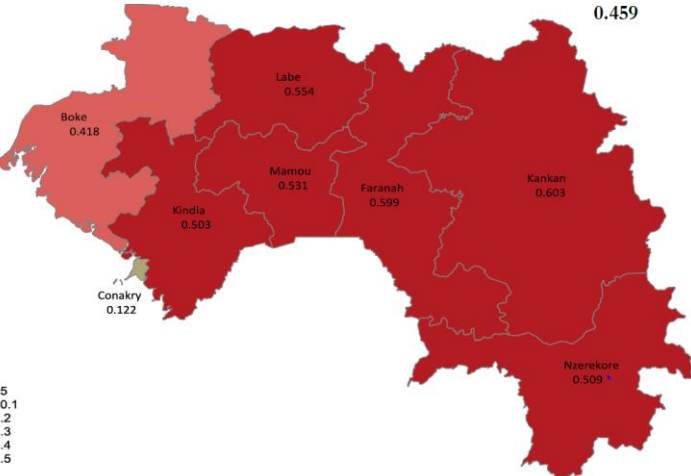
Guinea 75%

Guinea MPI 0.459

Mali 78%

Burkina Faso 84%

Burkina Faso MPI 0.535



Cote d'Ivoire 59%

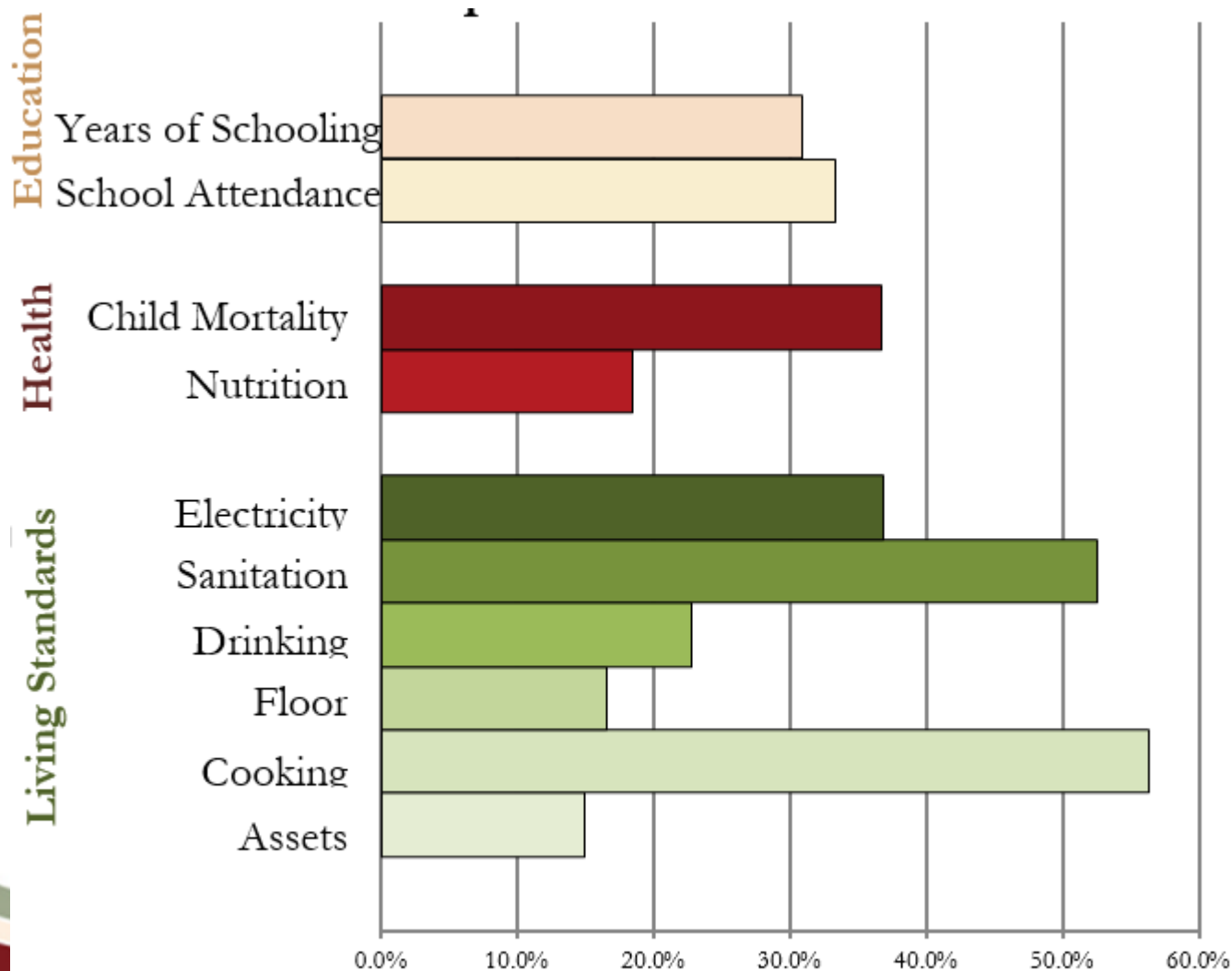
Ghana 34%



Cote d'Ivoire & its MPI Neighbours

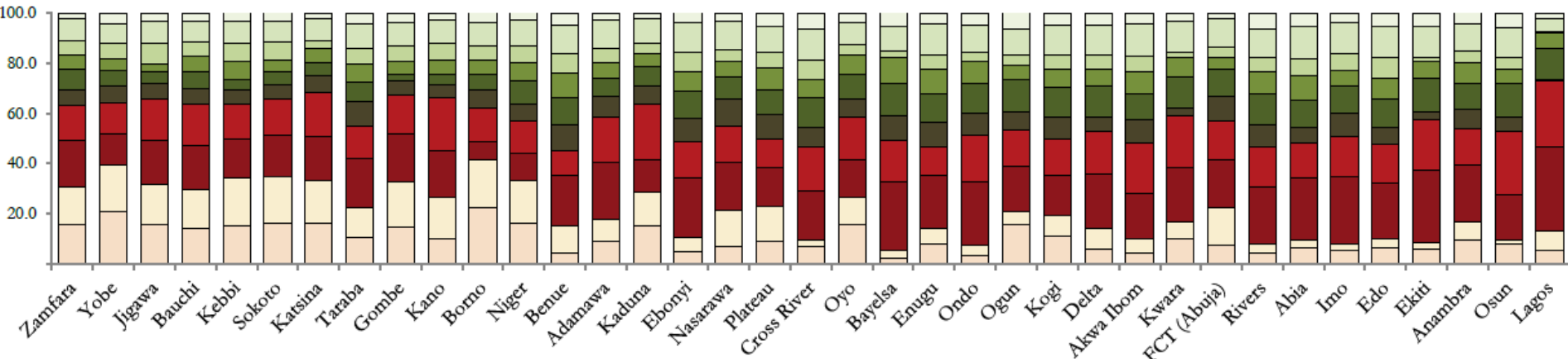
Country	Year	MPI	H	A Intensity	\$1.90/day	\$3.10/day	National poverty line	Income category	GNI/capita ^e		
Namibia	2013	0.193	42.0	46.0	22.6	2009	45.7	28.7	2009	Upper MIC	5,630
Cameroon	2011	0.248	46.0	53.8	29.3	2007	54.3	39.9	2007	Lower MIC	1,350
Togo	2013/14	0.252	50.1	50.4	54.2	2011	74.5	58.7	2011	Low income	570
Mauritania	2011	0.285	52.2	54.6	10.9	2008	32.5	42.0	2008	Lower MIC	1,270
Nigeria	2013	0.303	53.2	56.8	53.5	2009	76.5	46.0	2009	Lower MIC	2,970
Malawi	2013/14	0.265	56.0	47.4	70.9	2010	87.6	50.7	2010	Low income	250
Zambia	2013/14	0.281	56.6	49.8	64.4	2010	78.9	60.5	2010	Lower MIC	1,680
Senegal	2014	0.309	56.9	54.3	38.0	2011	66.3	46.7	2010	Lower MIC	1,050
Cote d'Ivoire	2011/12	0.310	58.7	52.8	29.0	2008	55.1	46.3	2015	Lower MIC	1,450
Gambia	2013	0.323	60.4	53.4	45.3	2003	68.0	48.4	2010	Low income	460
Benin	2011/12	0.307	62.2	49.3	53.1	2011	75.6	36.2	2011	Low income	890
Tanzania,	2010	0.332	65.6	50.7	46.6	2011	76.1	28.2	2011	Low income	920

The MPI is always broken down by indicator to show how people are poor by each indicator



Percentage of people who are MPI poor and deprived in each indicator

Global MPI: Headline + Disaggregated detail

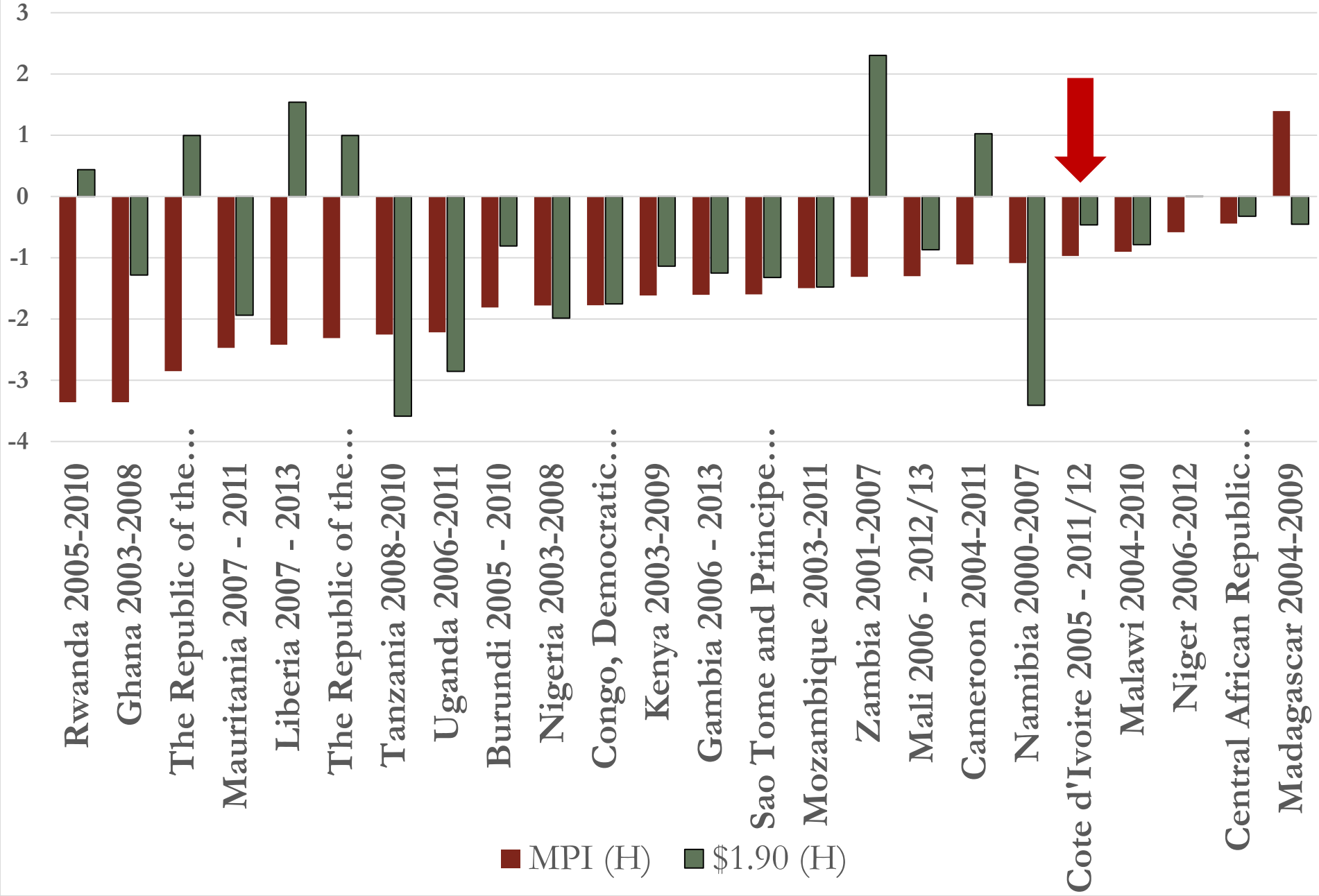


Governance

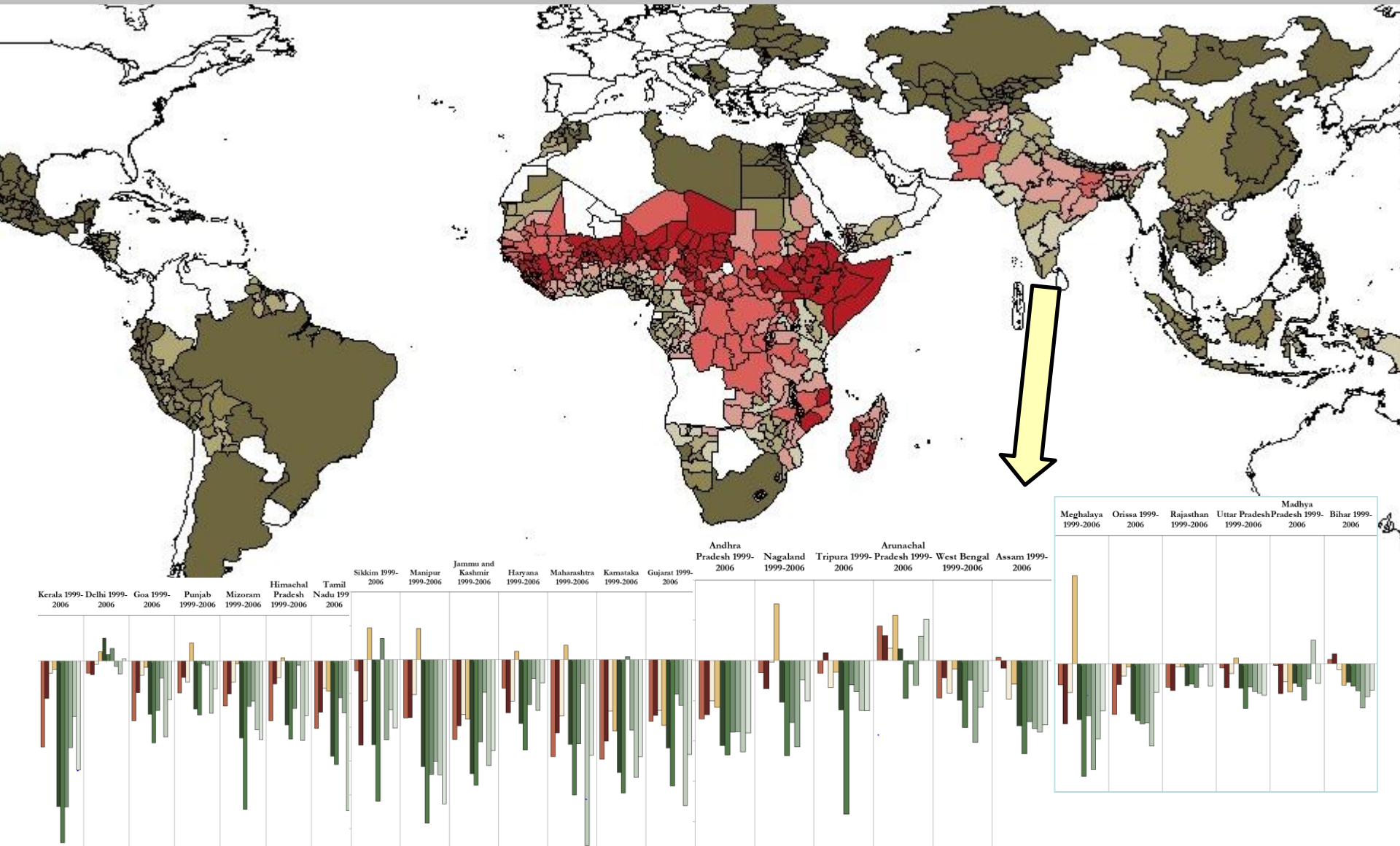


Leave No One Behind

Annualized Changes in MPI vs. \$1.90 (H) for Africa



+ Changes over time for each indicator (States of India)

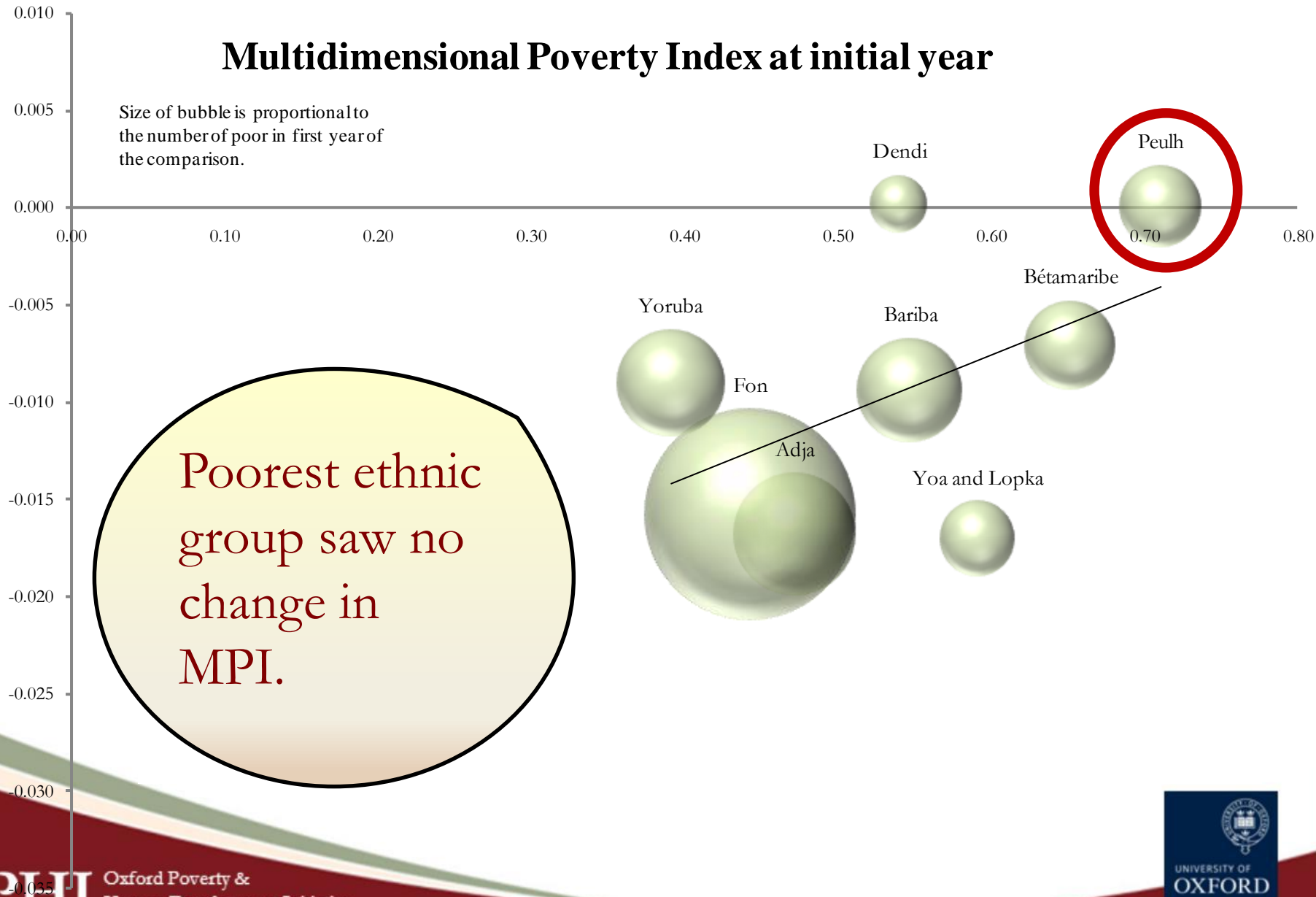


Disaggregating by Ethnic Group - Benin

Multidimensional Poverty Index at initial year

Size of bubble is proportional to the number of poor in first year of the comparison.

Annual Absolute Change in MPI

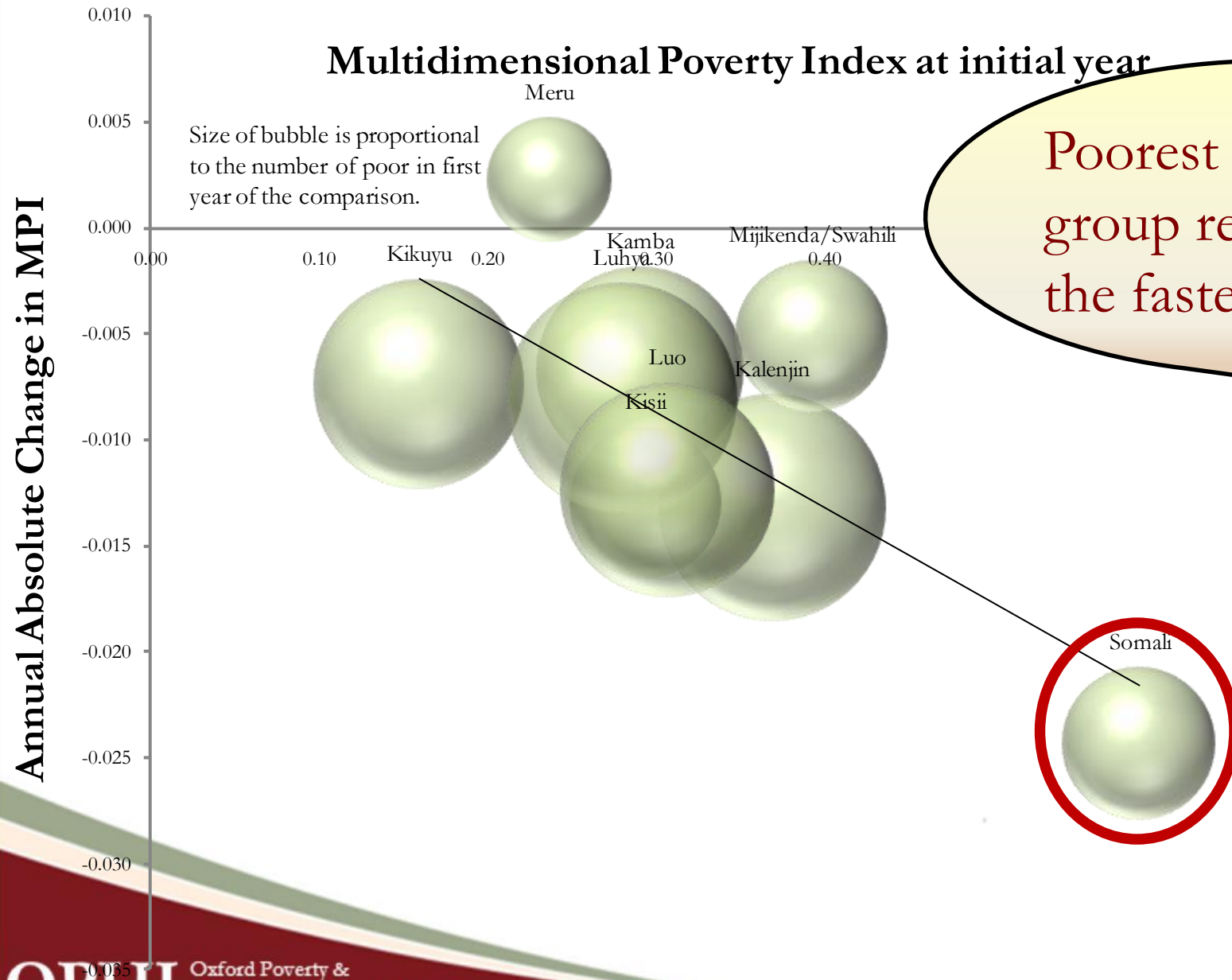


Poorest ethnic group saw no change in MPI.

Disaggregating by Ethnic Group - Kenya

Multidimensional Poverty Index at initial year

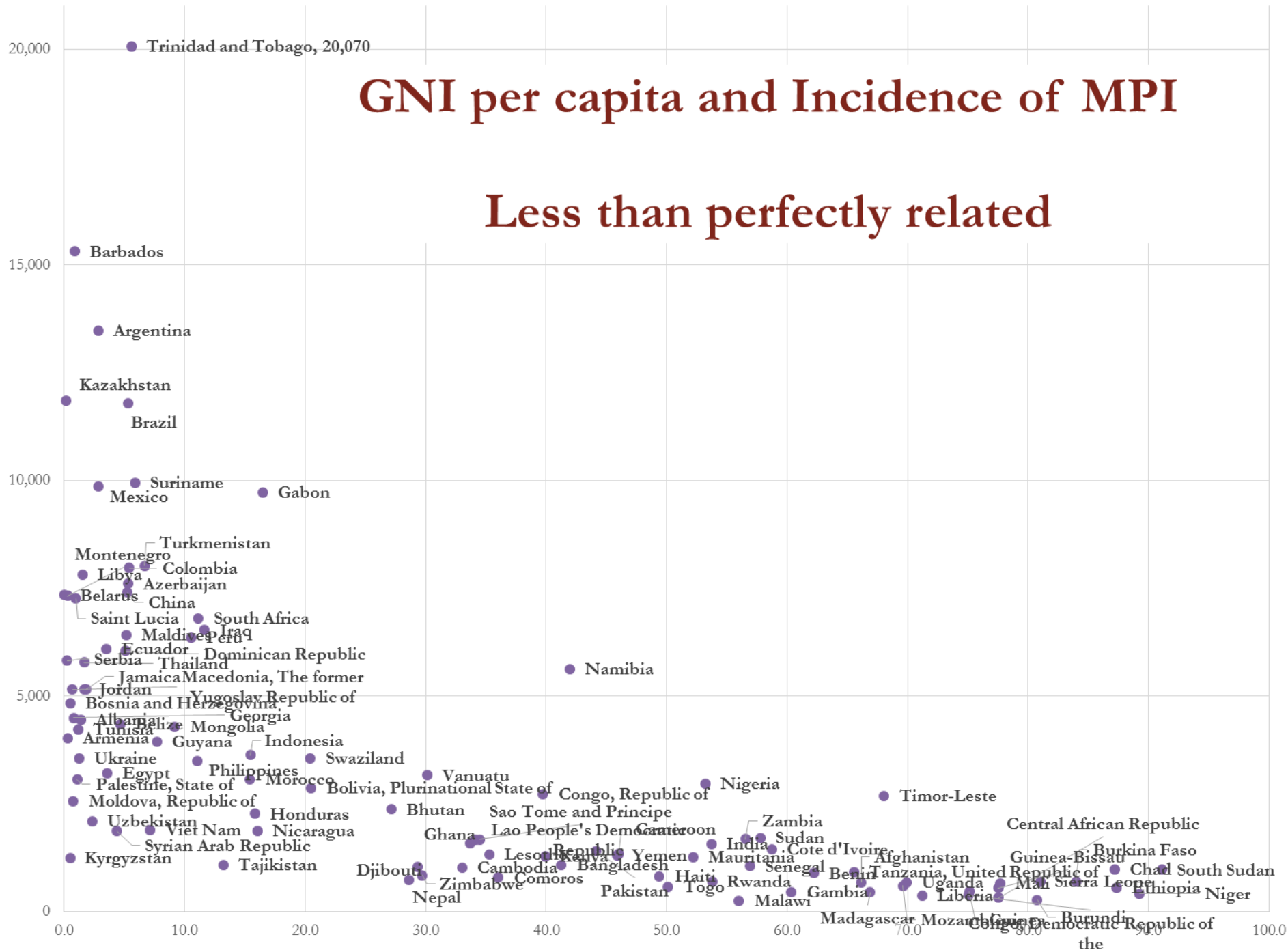
Size of bubble is proportional to the number of poor in first year of the comparison.



Poorest ethnic group reduced MPI the fastest.

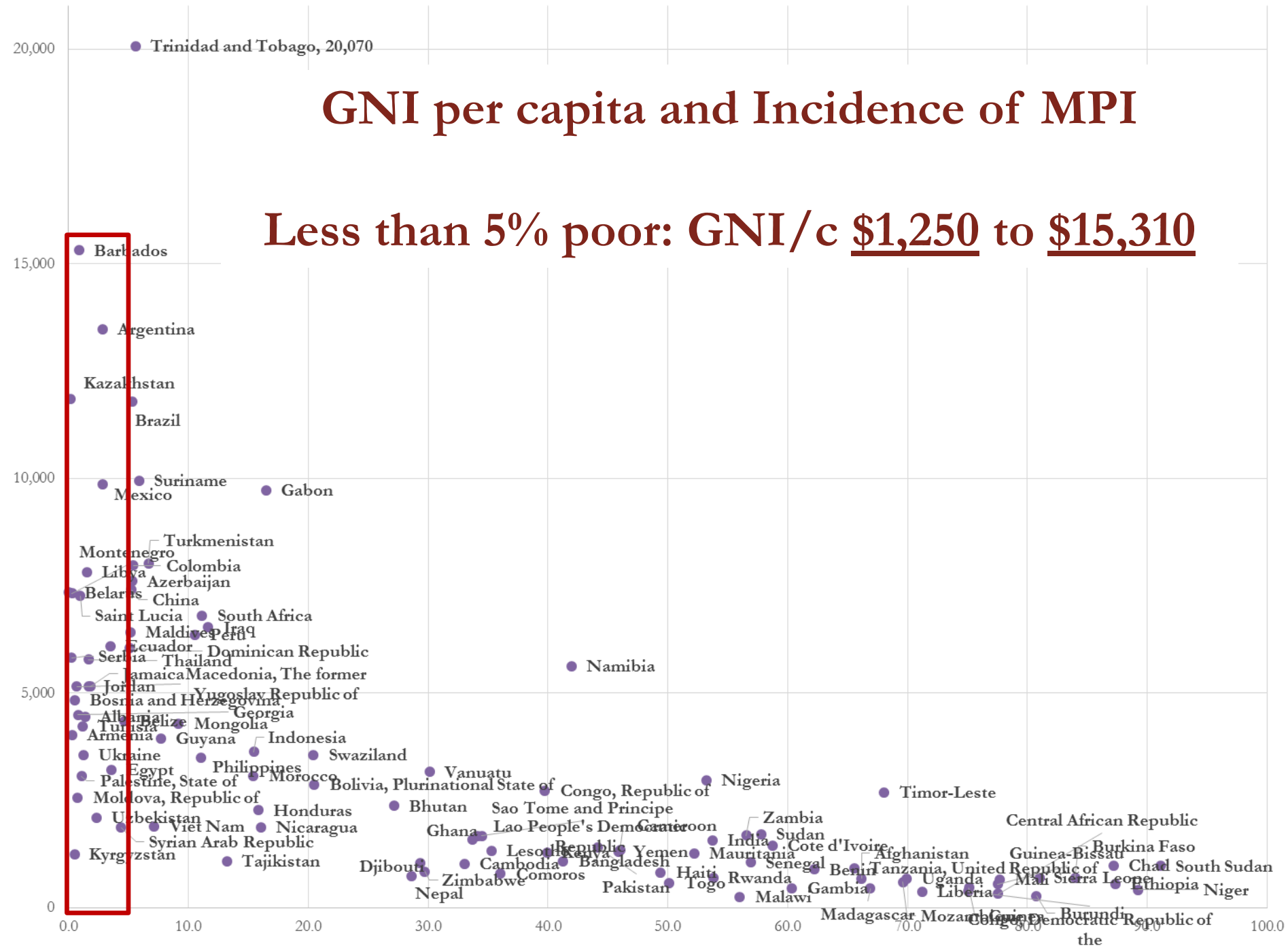
GNI per capita and Incidence of MPI

Less than perfectly related



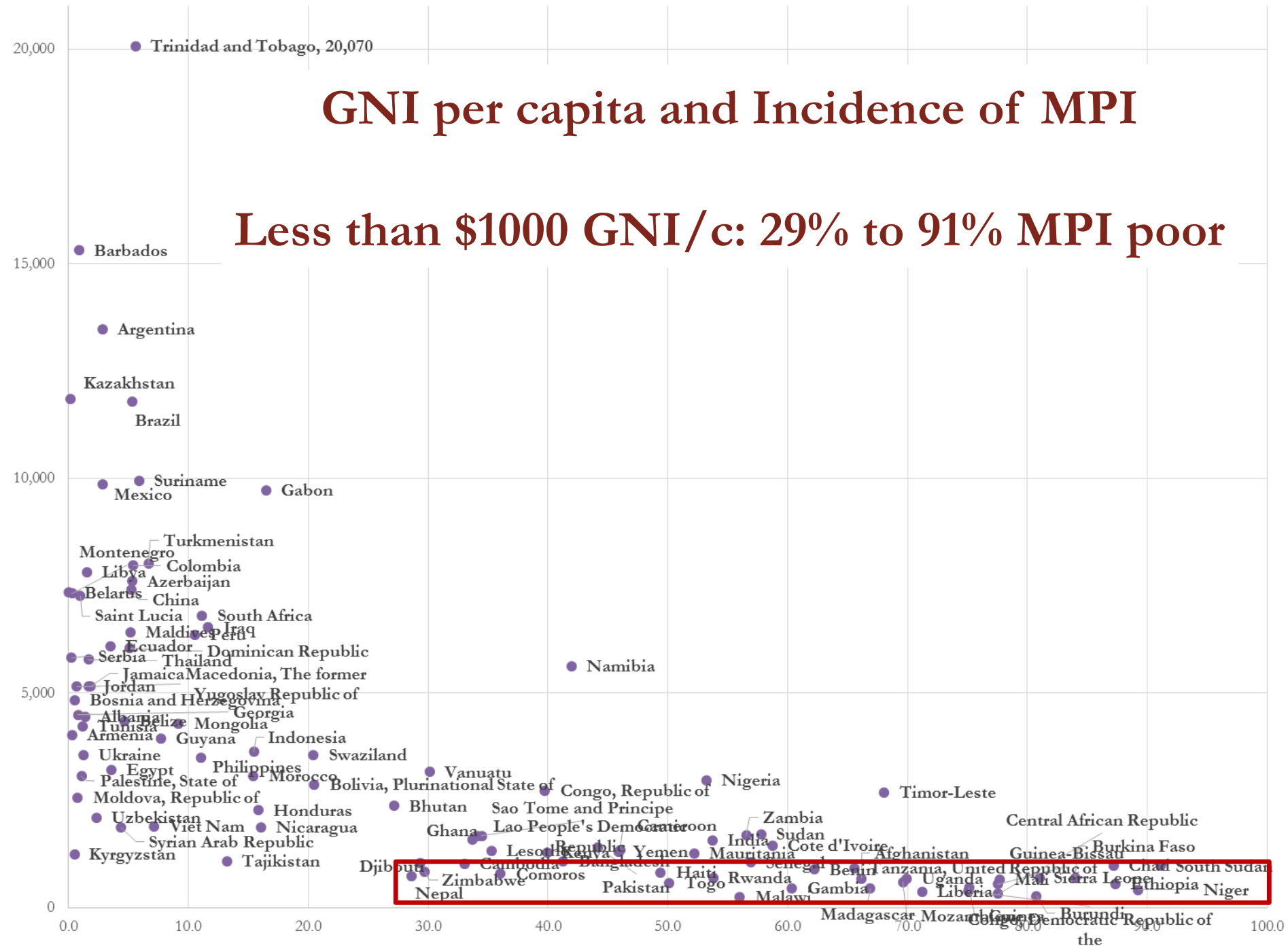
GNI per capita and Incidence of MPI

Less than 5% poor: GNI/c \$1,250 to \$15,310



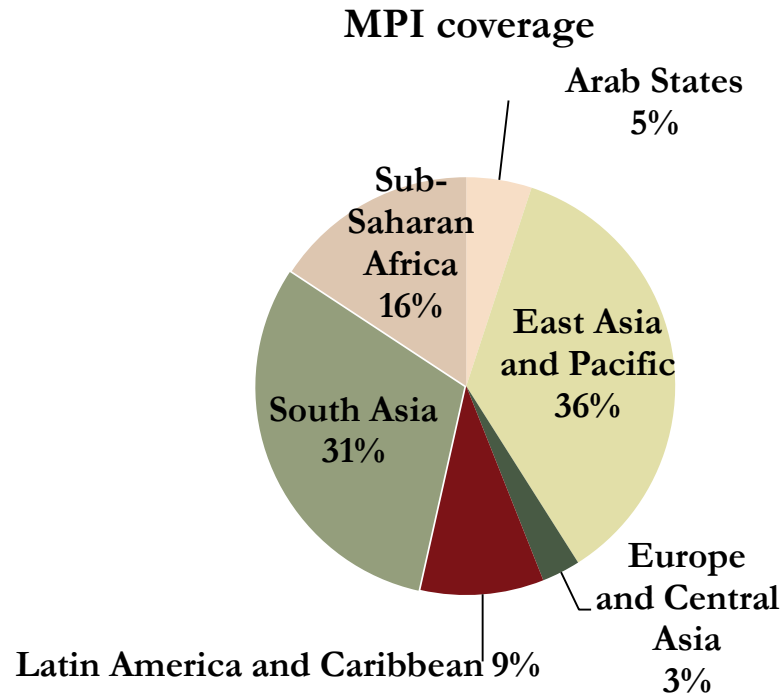
GNI per capita and Incidence of MPI

Less than \$1000 GNI/c: 29% to 91% MPI poor



Population Coverage by Region

MPI 2016:
Covers 5.3 billion people
living in six world regions
Aggregates use 2012
population figures



MPI countries by Region	Population in MPI countries (million)	Total Pop in regions	% Pop covered
16 Europe and Central Asia	158	493	32%
12 Arab States	268	359	75%
18 Latin America and Caribbean	505	594	85%
10 East Asia and Pacific	1904	2057	93%
7 South Asia	1629	1726	94%
39 Sub-Saharan Africa	833	864	96%

MPI Population Coverage by Income Category

MPI 2016 covers:

99% of people in **Low income countries**

96% of people in **Lower Middle Income Countries**

87% of people in **Upper Middle Income Countries**

93% of the **combined population** in these categories

Income Categories	Population in MPI countries (million)	Total Pop in regions	% Pop covered
High income: OECD	0	1,063	0%
High income: non-OECD	43	292	14.6%
Upper middle income	2,046	2,350	87.1%
Lower middle income	2,657	2,760	96.3%
Low income	551	557	98.9%
Total	5,297	7,023	100%

MPI Data Gaps

55 countries have data 2012 – 2014 (3 years)

63 countries have data 2011 - 2014 (4 years)

88 countries have data 2008 – 2014 (7 years)

But 14 countries only have data 2005-2007

And 16 countries are only have data 2000-2005 (so are not included in current data tables).

Missing: indicators on

- Work
- Violence
- Quality of Ed/Health
- Empowerment
- Social Cohesion
- Environment

Global Gendered poverty measures are presently impossible

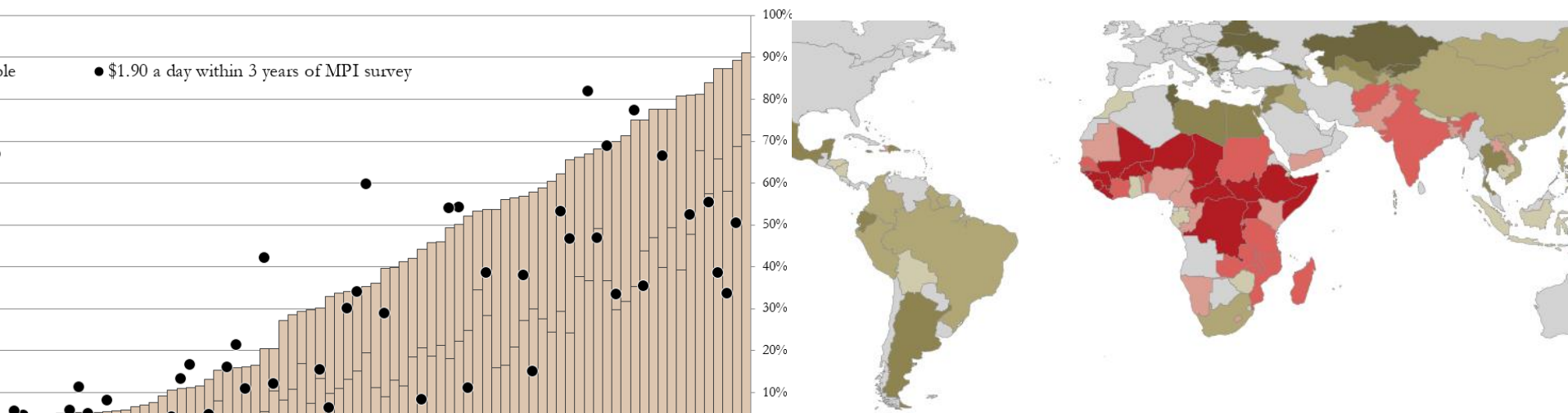
MPI: Two kinds ~ both useful

Global MPI (comparable):

Example: **The Global MPI** estimated and analysed by OPHI and published by UNDP's HDRO can be **compared** across 118 countries. Facilitates 'lessons learned' across countries.

- Like \$1.90/day – can be compared: adds subnational data
- Is being used for SDG Target 1.2 (halve MPI)

Headcount Ratios of MPI Poor and \$1.90/day



MPI: Two kinds ~ both useful

National (or subnational):

National MPIs reflect national contexts and priorities. They guide policies like targeting and allocation and monitor changes.

They are permanent official statistics, computed by the countries using national datasets – and used by policy actors & citizens

- Vital for policy. Not comparable across countries.

Armenia

Bhutan

Chile

Colombia

Costa Rica

Ecuador

El Salvador

Honduras

Mexico

Pakistan

Costa Rica:

Starting MPI: used to diagnose
Mismatches between objectives &
Programmes/allocations



Does our allocation match our levels of poverty by region? (Not yet)

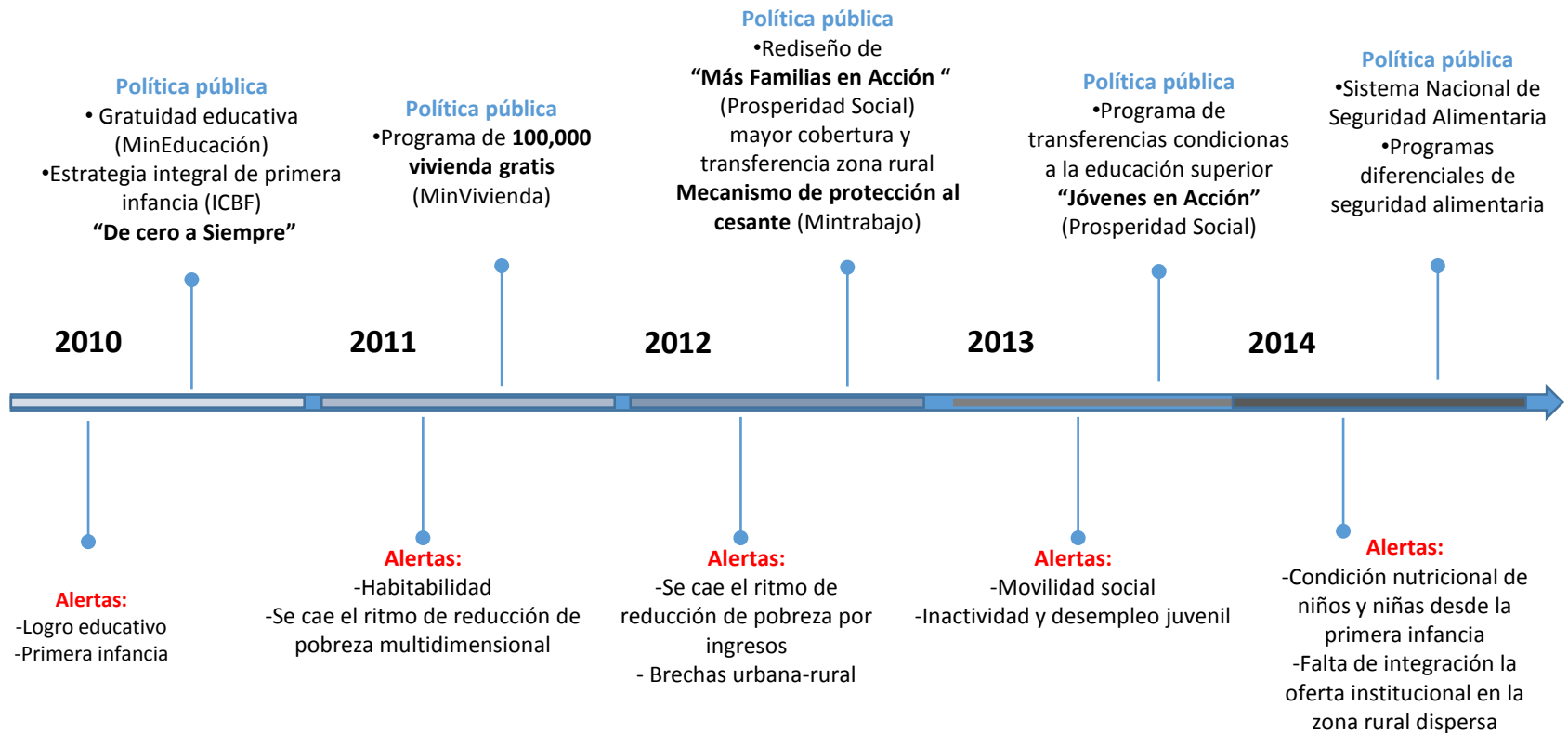
Región	Intensidad	Incidencia	Presupuesto Ejecutado
Central	25.86	15.17	¢205.544.667.095,39
Chorotega	29.01	31.37	¢57.097.420.823,67
Pacífico Central	26.74	26.21	¢47.887.090.732,15
Brunca	27.61	32.69	¢75.485.318.073,71
Huetar Atlántica	28.29	35.80	¢59.669.482.377,32
Huetar Norte	29.08	32.73	¢60.436.320.304,36
Nacional	27.22	21.66	¢514.225.278.725,60

Costa Rica: Does our allocation match our levels of poverty by sector? (Not yet)

Mostrar Datos de 2014

Indicador	% Carencia	Presupuesto Ejecutado
Sin acceso a educación	22,8%	¢217,477,650,077.62
Rezago educativo	27,6%	¢0
Sin bachillerato	27,6%	¢0
Bajo capital humano	61,3%	¢8,570,200,000.00

MPI: used to diagnose Mismatches between objectives & Programmes/allocations



El IPM nos ha permitido tener acuerdos básicos en información para mejorar la articulación institucional



- Focalización “modular” (puntaje + privaciones **IPM**)
- Georreferenciación de la población
- Encuesta de carácter dinámico
- Versión 4 disponible en 2017



- Logros asociados a **IPM**
- Seguimiento a gestión de oferta
- Avances en acompañamiento familiar y comunitario
- Información ajustada en 2016



- Registro único de beneficiarios que salen de pobreza por **IPM**
- Identificación de hogares del Sector
- Identificación de oferta recibida por hogar
- Información ajustada en 2016



- Calcular el **IPM** en los hogares de las personas en proceso de reintegración en estado activo.



La Agencia de **Reintegración** ha implementado el IPM como herramienta para hacer seguimiento a la población en proceso de reintegración

Resultados del IPM para población en proceso de reintegración (2013-última actualización)



<p>Educación</p>	<p>Niñez y juventud</p>	<p>Trabajo</p>	<p>Salud</p>	<p>Vivienda y servicios públicos</p>
<ul style="list-style-type: none"> • El analfabetismo es similar al promedio nacional. • El 78% de los hogares presenta al menos una persona mayor de 18 años que no supera la básica secundaria. 	<ul style="list-style-type: none"> • El indicador calculado no incluyó cifras de niñez y juventud. 	<ul style="list-style-type: none"> • El desempleo de larga duración afecta al 6% de los hogares. • La informalidad se mantiene dentro del promedio nacional (70%). 	<ul style="list-style-type: none"> • El 8,6% reportó no tener ningún tipo de afiliación. • El 20% de las personas no acudió a un médico general o institución de salud. 	<ul style="list-style-type: none"> • Más del 80% de los hogares cuenta con fuente de agua mejorada y cerca del 76% tiene servicio de alcantarillado. • El 31% de los hogares vive en condición de hacinamiento crítico.

Poverty from the view of its protagonists

Participatory study used
to design MPI indicators
in **El Salvador**

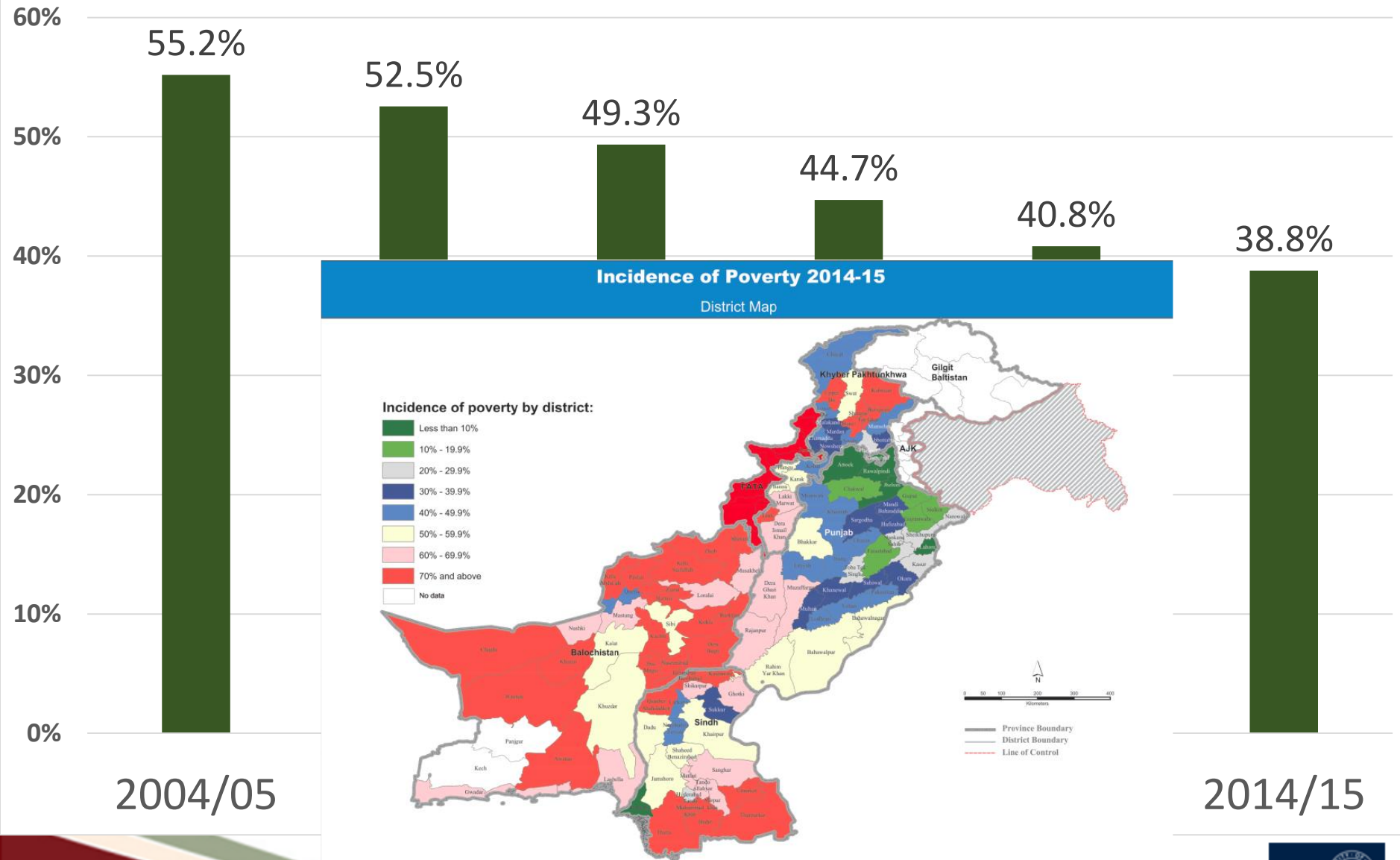


**“Water drips
through the holes
in the roof, and
floods the
outside.
Inside the house
it’s the same
story”**

**Isidra,
from Ayutuxtepeque**

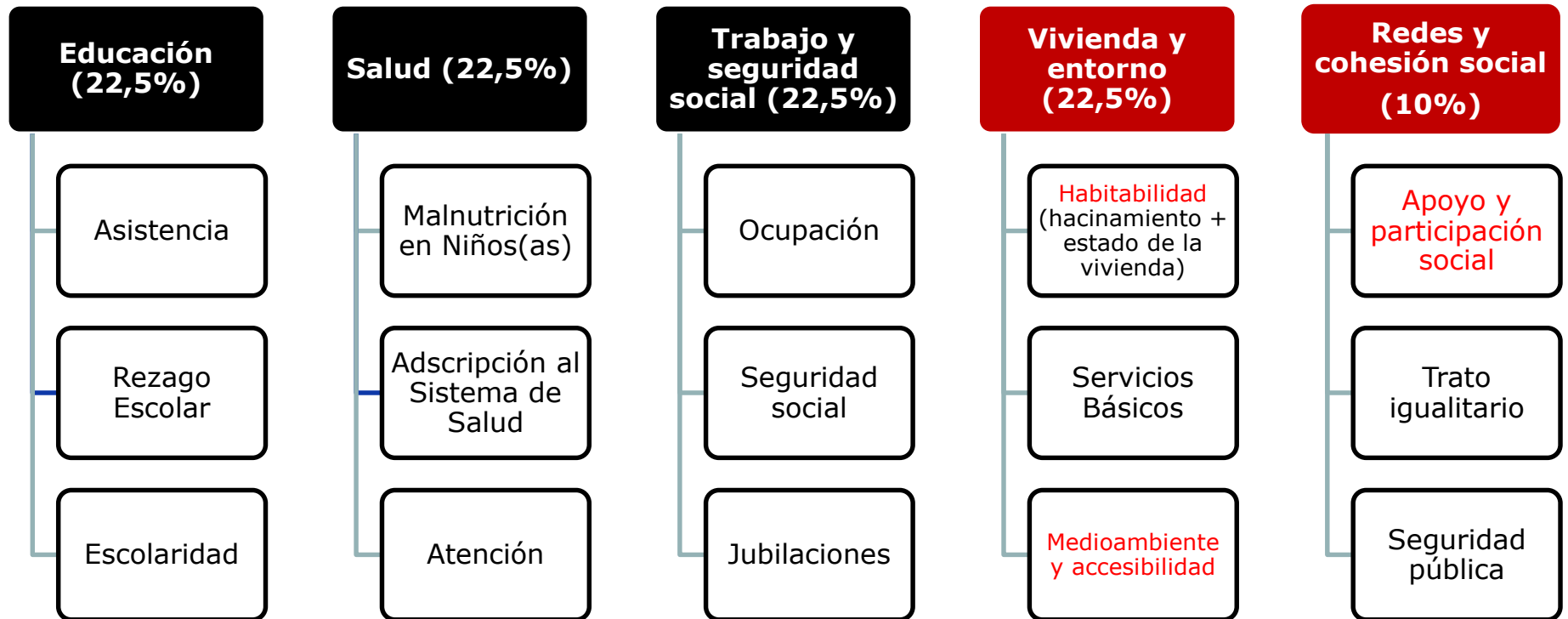


Pakistan's MPI Incidence (H), 2004-2015



Chile:

How to add new/improved indicators to an Official National MPI



Examples of uses in public policy

Mexico

National Crusade Against Hunger

- **Participation of all 17 Federal Ministries**
- **Target Population**
 - People in extreme poverty and food deprivation
 - Around 400 municipalities were selected according to extreme poverty and food deprivation indicators (number and %)
- **Aim**
 - Progressive eradication of every poverty dimensions and achievement of full exercise of social rights

Fund for Social Infrastructure at the State and Municipality Levels (FAIS, FISMDF)

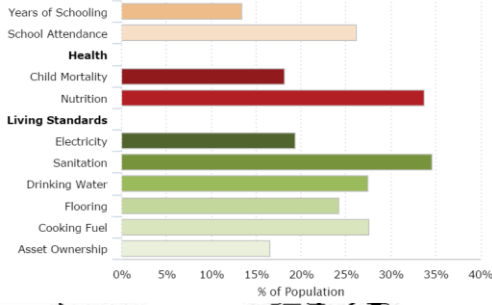
- **Financial priority to overcome poverty dimensions**
- **Allocation of the fund based on indicators of extreme poverty (number of people and average deprivations)**

Country Policy Uses of MPIS:

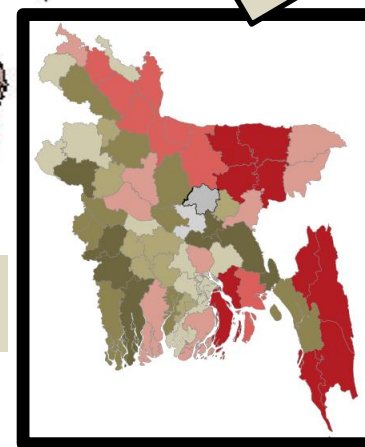
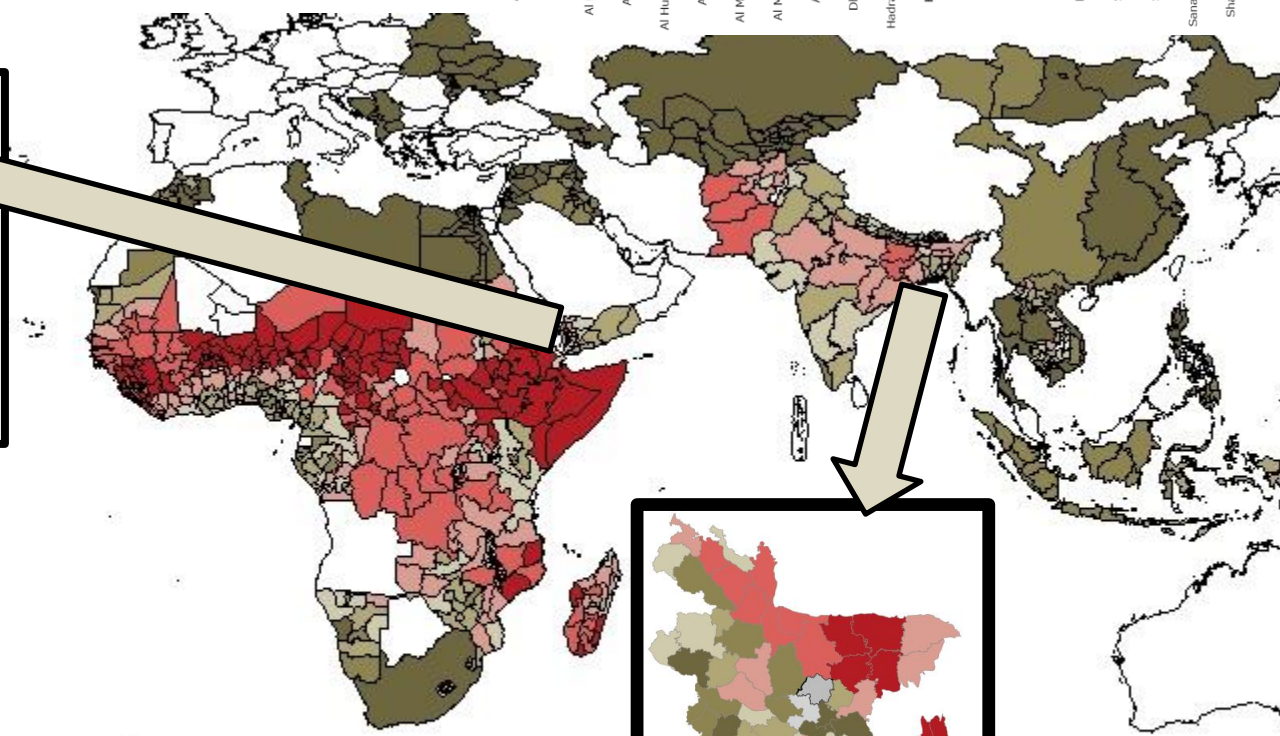
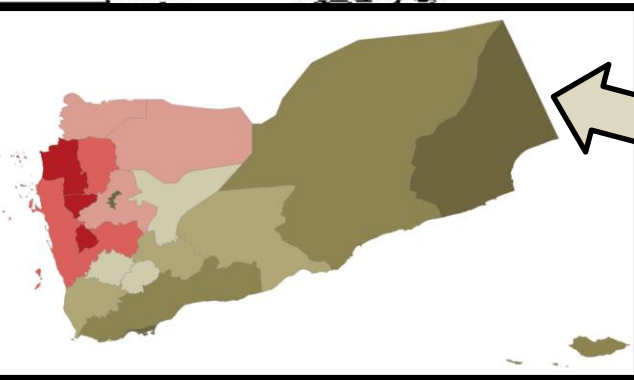
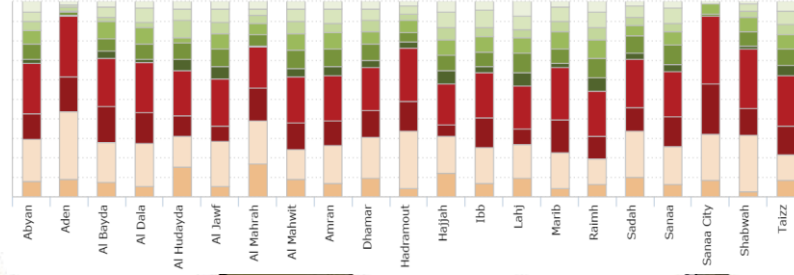
- **Track poverty** over time (official statistics)
- **Allocate** resources by sector, programme and region
- **Set priorities** for effective policies using diagnostics
- **Monitor** indicator changes (measure to manage)
- **Coordinate** policy across actors and levels
- **Target** marginalized regions, groups, or households
- **Evaluate** joint policy impacts on households
- **Map** interventions so NGOs/businesses engage
- *Data:* MPIS use less than 77 survey questions to date

MPIs: Headline + Disaggregated detail

Censored headcount ratio



Percentage composition



Disaggregated: H, MPI, A & c