Addressing Multi-Dimensions of Poverty and Inequality

Sabina Alkire, OPHI, University of Oxford
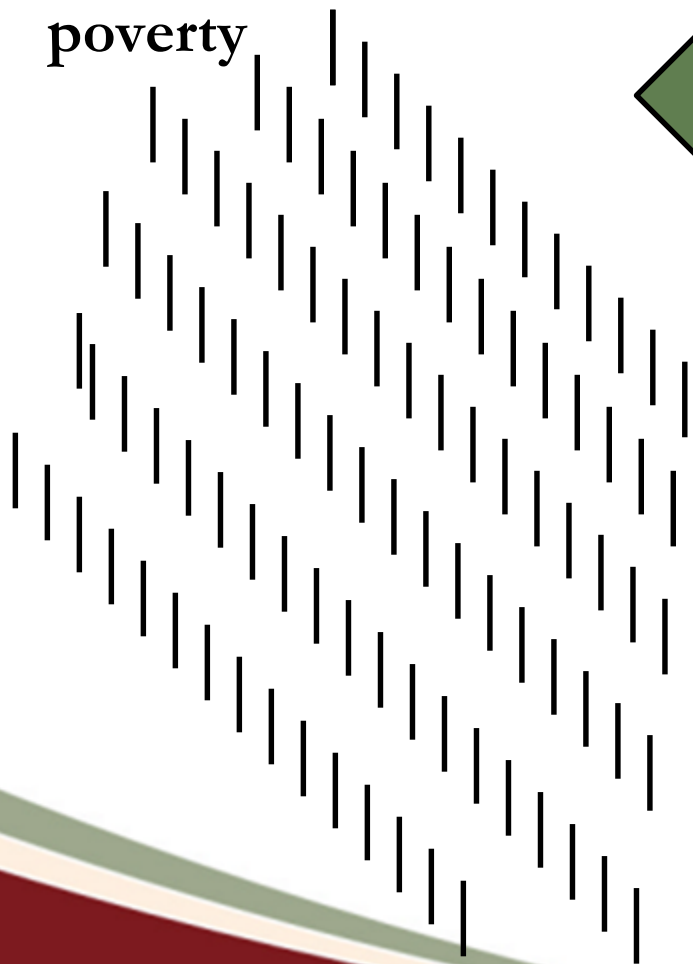
10 July 2017, HLPF

www.ophi.org.uk   www.mppn.org

"A number can awaken consciences; it can mobilize the reluctant, it can ignite action, it can generate debate; it can even, in the best of circumstances, end a pressing problem"

Numbers that Move the World
by Miguel Szekely (2005, 13).

How do these connect?

❖ - SDG Indicators covering multiple dimensions of poverty

❖ Integrated, Multisectoral Policies
(break Silos & coordinate)

❖ Leaving No One Behind
(Disaggregated Data)

Governance
(but it's a handful!)

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MPIs jointly analyse multiple SDGs
Example: Global Multidimensional Poverty Index (MPI)

Dimension	Indicator	Related SDG
Health	Nutrition	SDG 2 (Zero Hunger)
	Child Mortality	SDG 3 (Health & Well-being)
Education	Years of Education	SDG 4 (Quality Education)
	School Attendance	SDG 4 (Quality Education)
Living Standard	Cooking Fuel	SDG 7 (Affordable & Clean Energy)
	Sanitation	SDG 6 (Clean Water & Sanitation)
	Drinking Water	SDG 6 (Clean Water & Sanitation)
	Electricity	SDG 7 (Affordable & Clean Energy)
	Floor	SDG 11 (Sustainable Cities & Communities)
	Assets	SDG 1 (No Poverty)

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How do these connect?

❖ - SDG Indicators covering multiple dimensions of poverty

MPI

❖ **MPIs:** a headline *and* the indicator level detail on interlinkages

❖ **Integrated, Multisectoral Policies** (break Silos & coordinate)

❖ **Leaving No One Behind** (Disaggregated Data)

Governance

MPI makes it manageable

Motivation

Fighting Multidimensional Poverty requires Multidimensional Measures

'The need for a multidimensional view of poverty and deprivation guides the search for an adequate indicator of human poverty'
S. Anand & Amartya Sen

'Poverty measures should reflect the multi-dimensional nature of poverty.''
Ban Ki Moon, Dec 2014

"invites Member States, supported by the international community, to consider developing complementary measurements, including methodologies and indicators … that better reflect that multidimensionality."
UNGA A/RES/69/238, Dec 2014

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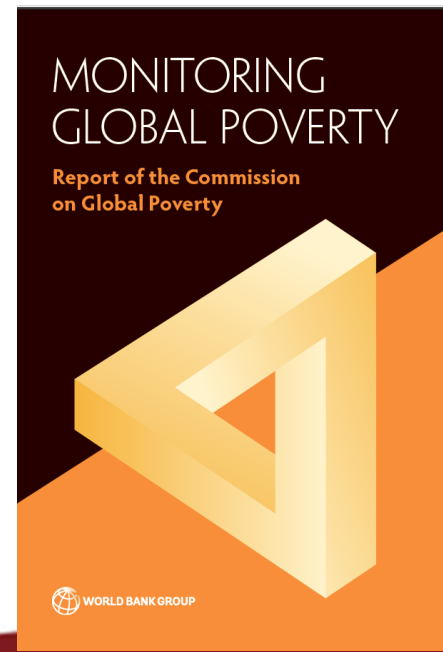# World Bank Commission: Monitoring Global Poverty
Chaired by Sir Tony Atkinson

➢ To complement other indicators, the 2016 Atkinson Commission report called for a global Multidimensioned Poverty Index based on the AF counting approach – perhaps including health, nutrition, education, living standards, work, and violence.　　　Recommendation 19

This Recommendation was accepted by the Chief Economist & Leadership.

3.5　Non-monetary poverty
　　　The case for a dashboard
　　　Choice of dimensions
　　　Clarifying concepts
　　　From domains to indicators
　　　A global reach
　　　Multidimensional poverty indices
　　　Overlapping deprivations and the counting approach
　　　The data required

MONITORING GLOBAL POVERTY

Report of the Commission on Global Poverty
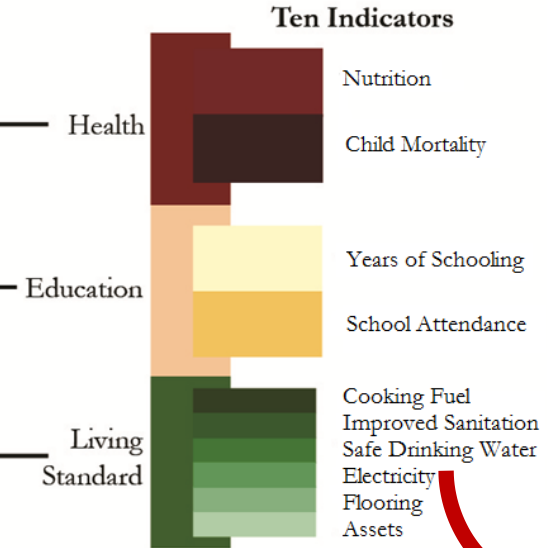
WORLD BANK GROUP

How to make a MPI

(Multidimenisonal Poverty Index)

Methodology for the National and Global MPIs

1. Select Indicators, Cutoffs, Values

Ten Indicators

Health
- Nutrition
- Child Mortality

Education
- Years of Schooling
- School Attendance

Living Standard
- Cooking Fuel
- Improved Sanitation
- Safe Drinking Water
- Electricity
- Flooring
- Assets

4. Use: MPI, Incidence Intensity & Composition

3. Identify who is poor

Grace is Deprived In

Health 1/2
- Nutrition
- Education

Living Standard 2/3
- Toilet
- Water
- Electricity
- Assets

Education
Nutrition
Toilet
Water
Electricity
Assets

Two Dimen
One Dimen

33%
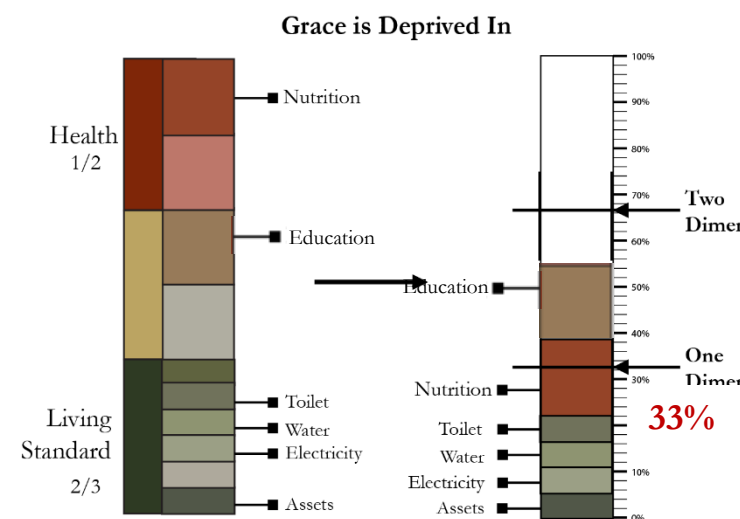
2. Build a deprivation score for each person

10 Indicators

| Nutrition | Child Mortality | Years of Schooling | School Attendance | Cooking Fuel | Sanitation | Water | Electricity | Flooring | Asset Ownership |
| Health | | Education | | Standard of Living | | | | | |

3 Dimensions

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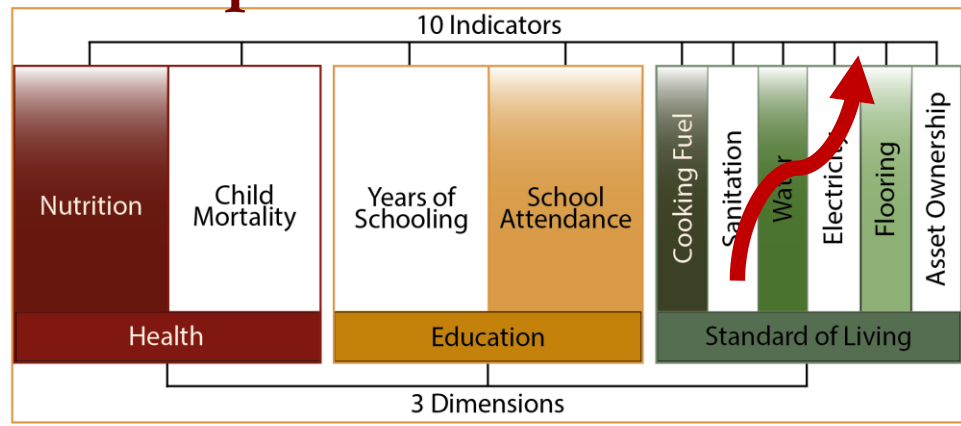
MPI: Full Technical methodology published

Statistical methods include:

Standard errors and confidence intervals for all statistics

Statistical inference for all comparisons

Validation for component indicators, alone and jointly

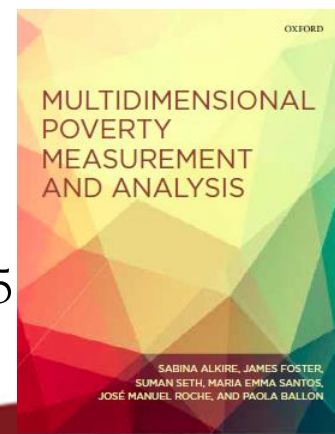**Robustness tests** for cutoffs and weights

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

OXFORD

MULTIDIMENSIONAL POVERTY MEASUREMENT AND ANALYSIS

SABINA ALKIRE, JAMES FOSTER, SUMAN SETH, MARIA EMMA SANTOS, JOSÉ MANUEL ROCHE, AND PAOLA BALLON

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MPIs:
Can be *either* National or Comparable (to halve).
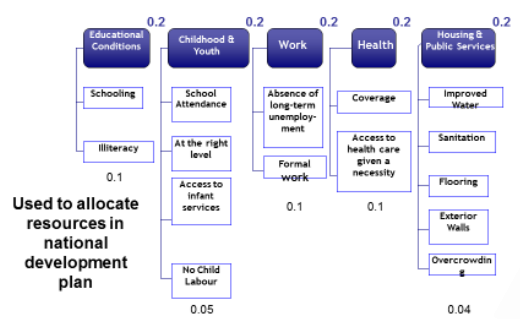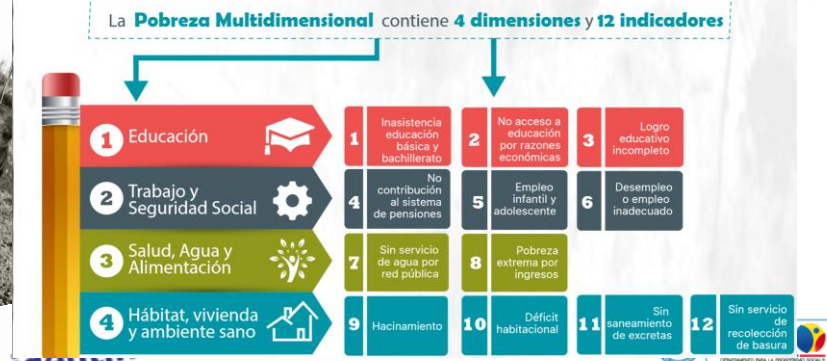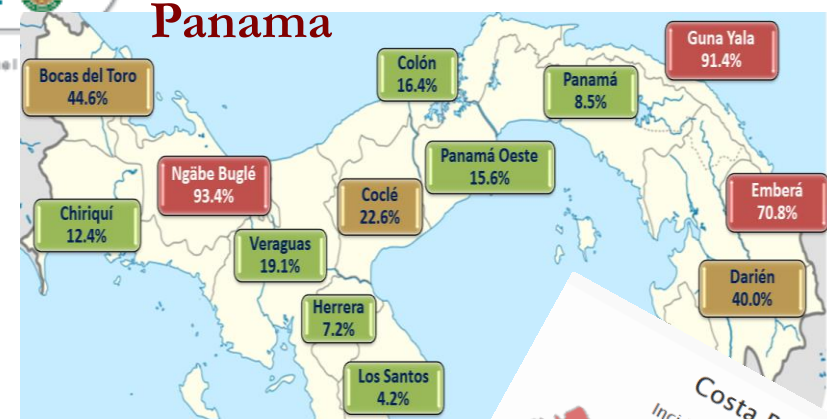
National MPIs: Tailor made for policy

- **Reflect National Priorities**
- **Compute as official national statistics**
- **Vital for policy: target, coordinate, monitor**
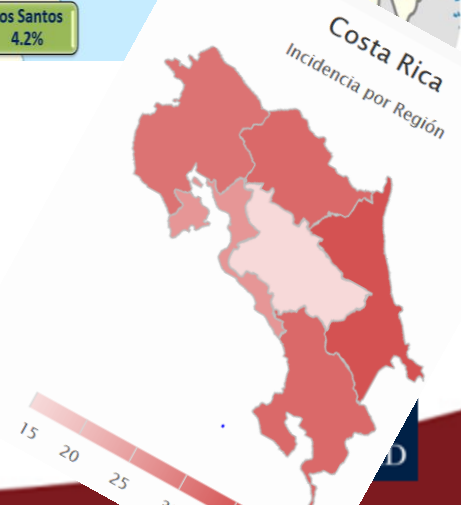- **Comparable over time, groups, provinces**

MAPA 1. Incidencia de pobreza multidimensional por departamento (expresada en porcentaje de hogares)

Fuente: Elaboración propia con base en DIGESTYC (2014)

El Salvador publishes national MPI results

Ecuador

Statistics South Africa

The South African MPI
Creating a multidimensional poverty index using census data

Panama

Region	%
Bocas del Toro	44.6%
Colón	16.4%
Guna Yala	91.4%
Panamá	8.5%
Ngäbe Buglé	93.4%
Panamá Oeste	15.6%
Chiriquí	12.4%
Coclé	22.6%
Emberá	70.8%
Veraguas	19.1%
Herrera	7.2%
Darién	40.0%
Los Santos	4.2%

Multidimensional Poverty

BHUTAN

La **Pobreza Multidimensional** contiene **4 dimensiones** y **12 indicadores**

1 Educación
2 Trabajo y Seguridad Social
3 Salud, Agua y Alimentación
4 Hábitat, vivienda y ambiente sano

1 Inasistencia educación básica y bachillerato
2 No acceso a educación por razones económicas
3 Logro educativo incompleto
4 No contribución al sistema de pensiones
5 Empleo infantil y adolescente
6 Desempleo o empleo inadecuado
7 Sin servicio de agua por red pública
8 Pobreza extrema por ingresos
9 Hacinamiento
10 Déficit habitacional
11 Sin saneamiento de excretas
12 Sin servicio de recolección de basura

Poverty Identif...

Mexico

Not poor and not vulnerable

Public policy

Income cut-off

Minimum Income Cut-off

Extreme poor

6 5 4 3 2 1 0

Denivations

- Education
- Health services
- Social security
- Quality housing
- Dwelling's services
- Access to food

Costa Rica
Incidencia por Región

	0.2	0.2	0.2	0.2	0.2
	Educational Conditions	Childhood & Youth	Work	Health	Housing & Public Services
	Schooling	School Attendance	Absence of long-term unemployment	Coverage	Improved Water
	Illiteracy	At the right level	Formal work	Access to health care given a necessity	Sanitation
	0.1	Access to infant services	0.1	0.1	Flooring
					Exterior Walls
		No Child Labour			Overcrowding
		0.05			0.04

Used to allocate resources in national development plan

15 20 25

Chile

Comparable MPIs (Global MPI, ECLAC MPI)

- Like $1.90/day and $3.10/day poverty measures
- Can also compare <u>countries</u> (& subnational groups, over time)
- Could track SDG-1: <u>halve</u> poverty in its many dimensions;
- Could measure both acute and moderate poverty
- Useful for policy analysis as as a supplement to national MPIs

The Headcount Ratios of MPI Poor and $1.90/day Poor differ
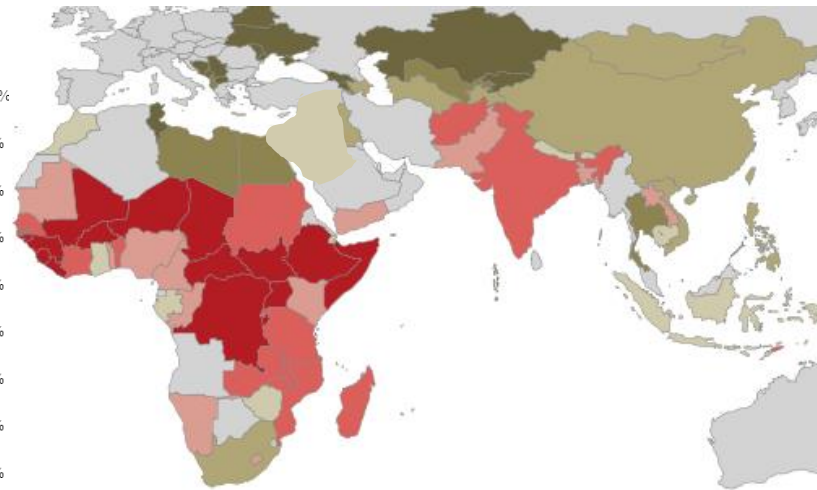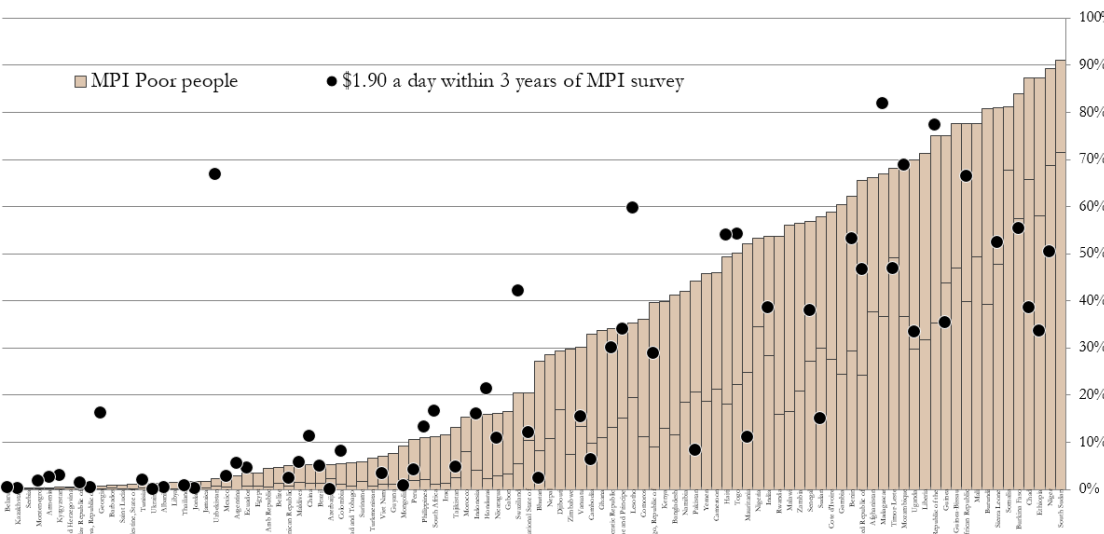
■ MPI Poor people   ● $1.90 a day within 3 years of MPI survey

MPI as a Governance Tool

New <u>National MPIs</u> launched as official statistics since September 2015

- **El Salvador** – MPI based on the 'protagonists' of poverty (2015)
- **Costa Rica** – MPI aligns allocation with national goals (2015)
- **Ecuador** –MPI reflects political commitment to *Buen Vivir* (Feb 2016)
- **Pakistan** –MPI reflects the Vision 2025, in detail (June 2016).
- **Chile** – MPI-2 includes dimension of environment & networks (2016)
- **Honduras** – MPI includes work and informs targeting (August 2016)
- **Mozambique** – MPI shows trends from 1996-2014/15 (Oct 2016)
- **Armenia –** MPI reflects complexity & persistence (November 2016)
- **Panama –** annual MPI profiles high disparity subnationally (June 2017)
- **Dominican Republic –** innovative MPI with digital divide (June 2017)

New National MPIs launched as official statistics since September 2015

- **El Salvador** – MPI b
- **Costa Rica** – MPI al
- **Ecuador** –MPI refle
- **Pakistan** –MPI refle
- **Chile** – MPI-2 includ
- **Honduras** – MPI inc
- **Mozambique** – MPI
- **Armenia –** MPI refle
- **Panama –** annual M
- **Dominican Republ**

Voluntary Reviews by
- **Bangladesh**
- **Chile**
- **Costa Rica**
- **Egypt**
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- **Indonesia**
- **Panama**
- **Philippines**
- **Sierra Leone**
- **Tajikistan   all mention MPIs.**

OPHI Oxford Poverty & Human Development Initiative

New National MPIs launched as official statistics since September 2015

- **El Salvador** – MPI b...
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- **Mozambique** – MPI...
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- **Panama –** annual M...
- **Dominican Republi...**

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Multidimensional Poverty Peer Network (www.mppn.org) has **53 participating countries.**

The 2017 meeting is by **China**; the 2018 meeting is hosted by **South Africa**.

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   - Private Sector etc, all parts of government.

Most countries launch national monetary and multidimensional poverty measures on the same day. Example: Chile

El nuevo estándar oficial de medición

▶▶ Era una de las dos innovaciones prometidas para la Casen 2013. "Nos hemos puesto más exigentes", dijo la ministra de Desarrollo Social, María Fernanda Villegas, al referirse a la nueva metodología que se aplicará para medir los índices de pobreza y de pobreza extrema en el país. Este estándar constituirá desde ahora el reporte oficial del gobierno.

Según detalló la secretaria de Estado, con este nuevo criterio en 2013 una persona estaba en situación de pobreza si recibía un ingreso mensual inferior a $136.911. Esto representa un incremento de 107% respecto del estándar que regía bajo la forma tradicional, situado en $66.084 por individuo.

"Esto muestra con toda claridad lo que nos decía la gente; que no era posible considerar a alguien no pobre porque ganaba o tenía recursos por 66 mil pesos", aseveró la titular de Desarrollo Social.

De la misma forma, una persona es indigente o está en extrema pobreza si su ingreso es menor a $91.274. Bajo el mecanismo tradicional, la canasta básica de alimentos que determinaba esta condición equivalía a un ingreso mensual bajo $51.549.

La modificación se aplica también para hogares compuestos por dos, tres y cuatro personas. Por ejemplo, en el caso de una familia de cuatro integrantes, la línea de pobreza sube de $264.336 a $361.310, mientras que para la pobreza extrema se eleva de $158 mil a $240 mil, es decir, crece 51,5%.

El nuevo estándar fue aplicado por el gobierno en la medición de pobreza, que se estableció en 14,4%. Además, se construyeron cifras comparativas hacia atrás hasta 2006, estableciendo que siete años antes, esa tasa estaba en 29,1% **(ver infografía)**.

Evolución del porcentaje de personas en situación de pobreza por ingresos basados en metodología nueva

FUENTE: Casen 2013. **LA TERCERA**

La pobreza multidimensional: 20,4%

▶▶ Medir la vulnerabilidad social más allá del factor de ingresos económicos es a lo que apunta la nueva metodología incorporada a la Encuesta Casen 2013, denominada "pobreza multidimensional".
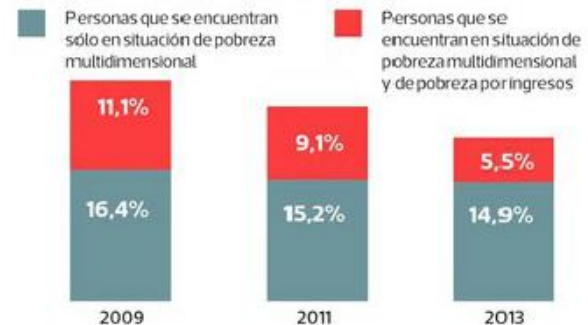
Se trata de un sistema que contempla cuatro dimensiones: educación; salud; vivienda y trabajo, y seguridad social. Cada uno de ellos contiene tres indicadores, los que se ponderan con un 8,33%. Por ejemplo, en el caso del factor salud los indicadores que se consideran para determinar el nivel de vulnerabilidad son: malnutrición en niños de cero a seis años; adscripción al sistema de salud y prestaciones de atención.

De dicho modo se determinará la existencia de pobreza multidimensional cuando las carencias sumen un 25% o más en los indicadores que componen la medida.

"Esta nueva mirada nos permite ahondar en más detalle en la situación en la que viven los hogares en nuestro país, sea tanto por la falta de ingresos necesarios para adquirir una canasta básica de consumo, como por sufrir carencias en otras dimensiones relevantes", explicó la ministra de Desarrollo Social, María Fernanda Villegas.

A modo de ejemplo, indicó que "en servicio básicos, Chile tiene unos estándares extremadamente elevados, pero eso no significa que haya gente que no esté carente de ellos".
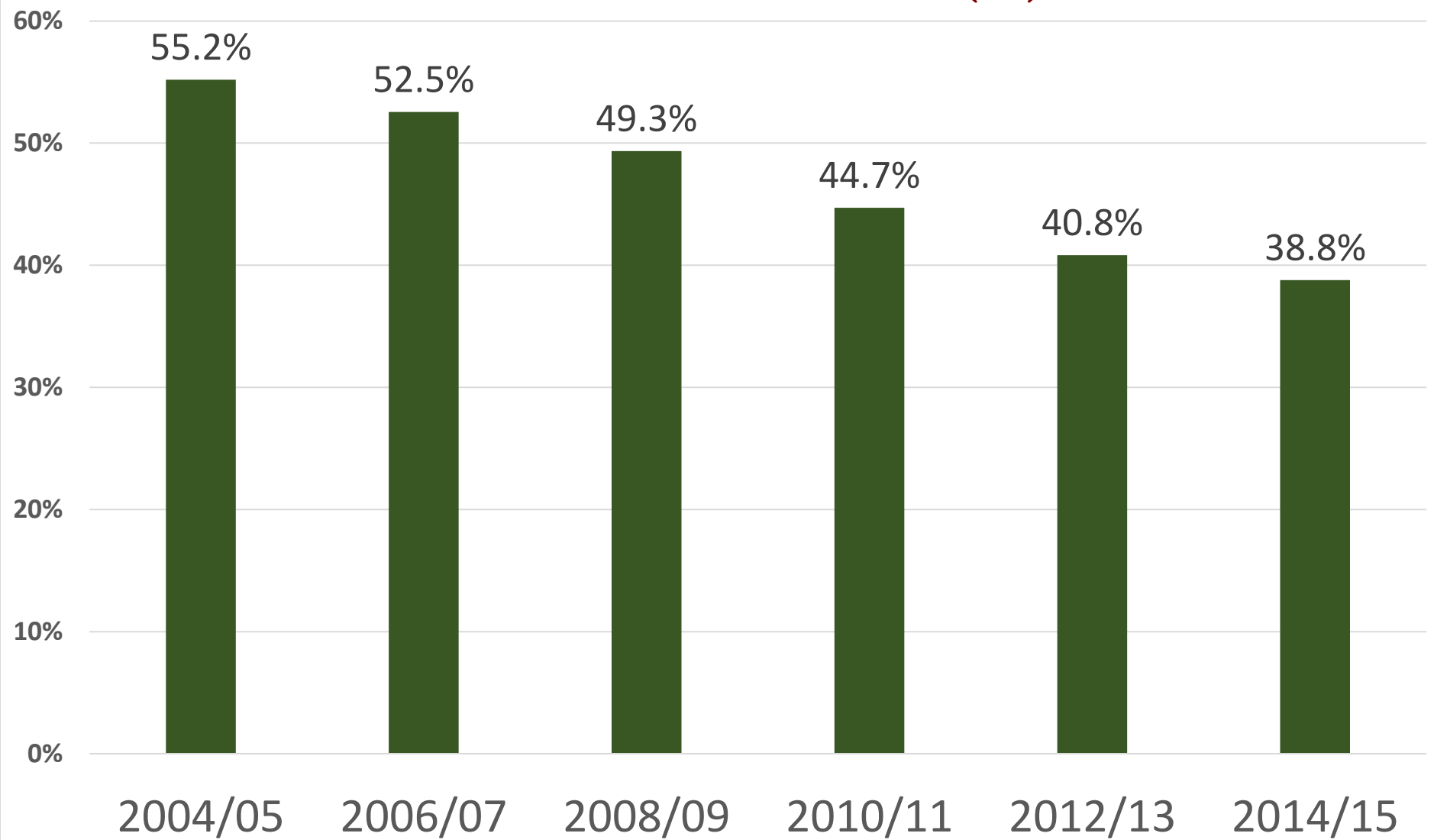
Según los resultados entregados por Desarrollo Social, en 2013 un 20,4% de los chilenos se encontraba en situación de pobreza multidimensional. De ese total, un 5,5% está en condición de pobreza multidimensional y por ingresos, mientras un 14,9% está sólo en situación de pobreza multidimensional.

POBREZA MULTIDIMENSIONAL

Porcentaje de personas en situación de pobreza multidimensional según situación de pobreza por ingresos, año 2009-2013

FUENTE: Casen 2013. **LA TERCERA**

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   - Private Sector etc, all parts of government.

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

Year	Incidence
2004/05	55.2%
2006/07	52.5%
2008/09	49.3%
2010/11	44.7%
2012/13	40.8%
2014/15	38.8%

Ecuador

¿Por qué son pobres?

Descomposición del IPM

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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

COSTA RICA
GOBIERNO DE LA REPÚBLICA

PUENTE
AL DESARROLLO

Costa Rica: Because the 2015 MPI showed big mismatches between policy objectives and llocations, President Solis issued a **Presidential Decree** that MPI must be part of allocation formulae in the future.

The 2017 budget reflects the MPI

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

COSTA RICA
GOBIERNO DE LA REPÚBLICA

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THE 13TH FIVE-YEAR PLAN

FOR ECONOMIC AND SOCIAL DEVELOPMENT OF THE PEOPLE'S REPUBLIC OF CHINA

(2016–2020)

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In keeping with the need to ensure that poverty reduction efforts are well-defined in terms of targeting population, designing projects, using funds, implementing measures, appointing village personnel, and achieving outcomes, we will work to see that assistance programs become more effective so that people living in poverty in rural areas have adequate food and clothing and are able to access compulsory education, basic medical care, and safe housing.

<u>Dimensions</u>   CHINA

Compulsory Education (9 years)

Basic Medical Care

Safe Housing (includes water etc)

Adequate Food and Clothing

Sufficient income and livelihood.

Aim: end this poverty by 2020.

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INCLUSIVE CABINET OF MEXICO

SEDESOL

In order to built basic levels of social protection and guarantee social inclusion, Enrique Peña Nieto, President of Mexico, created the Cabinet *Mexico Incluyente*. Every Ministry at the federal level undertakes a full commitment to reduce social inclusion gaps related with the Mexican MPI. SEDESOL coordinates the Cabinet Mexico Incluyente.

Cabinet *México Incluyente*

Education	•SEP •(CDI, INEA)	Educational gap reduction
Healthcare	•**SALUD, SEGOB**	Increase Healthcare memberships
Social Security	• **SHCP-SALUD** • (STPS-SEDESOL, IMSS, ISSSTE)	Increase access to social security
Basic Services in Homes	• **SEDESOL** • (SEMARNAT-CONAGUA, CDI, SEDATU, CFE, SENER, SCT, CNA)	Potable water, power, drainage
Housing, quality and spaces	• **SEDATU** • (SEDESOL, INFONAVIT)	Floor, roof, walls, household overcrowding
Food Access	•**SEDESOL** •(SEP, SALUD, SAGARPA, DIF)	Household food insecurity scale
Income	• **ECONOMÍA** (SEDESOL, CDI, SCT, • SEMARNAT, SALUD-DIF, STPS, SEDATU, • SAGARPA, SHCP, SRE)	Income above the Basic Food Basket

FULL COOPERATION BETWEEN THE FEDERAL GOVERMENT, GOVERMENTS FROM ALL STATES AND MUNICIPALITIES

NEW PARADIGM: FROM THE SECTORIAL GLANCE TO A INTERSECTORIAL AND TRANSVERSAL APPROACH

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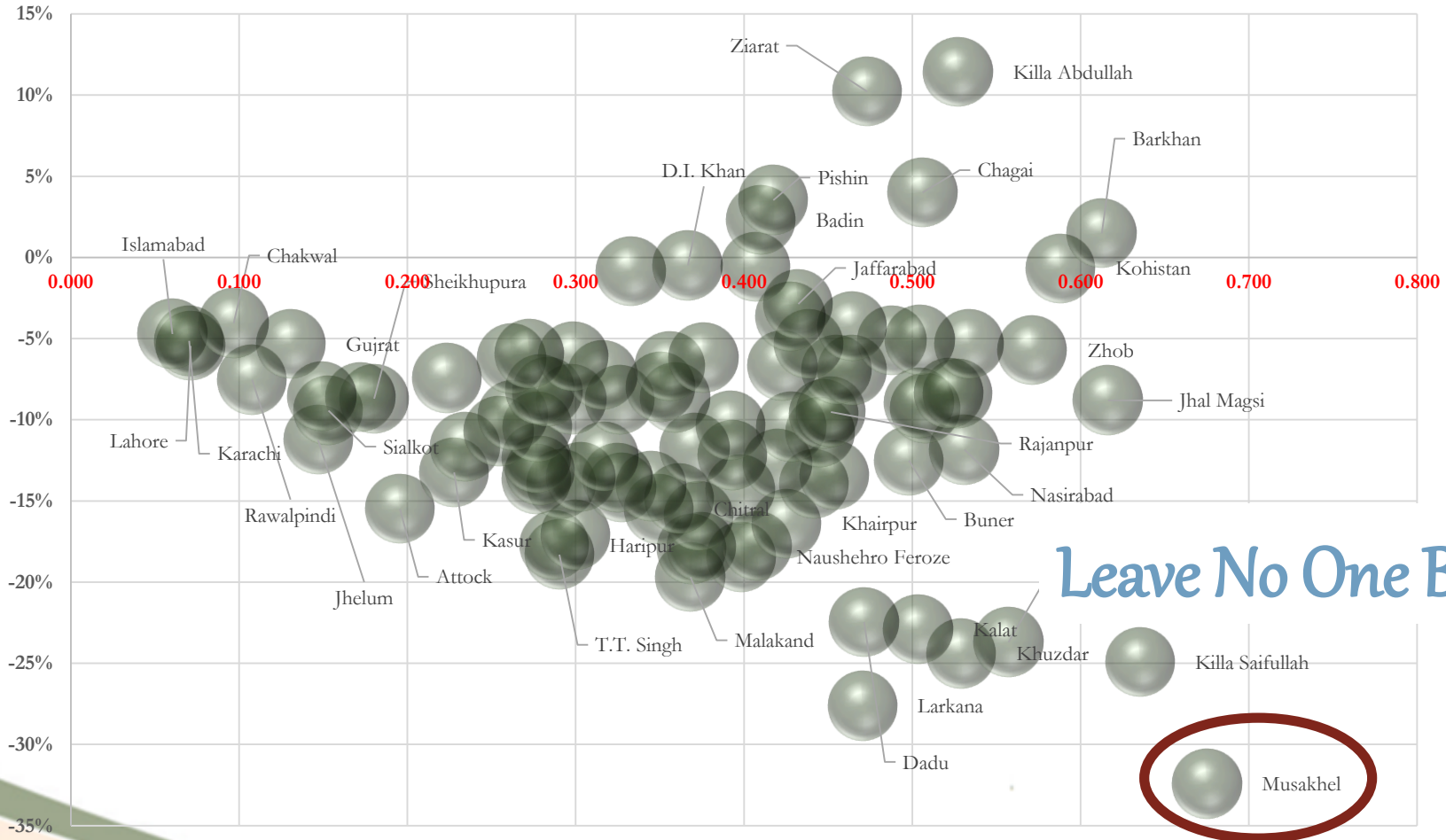8. **Be Transparent** so NGOs, Private Sector, all levels of government, engage.

Panama 2017: MPI rates vary nationally from 4.2% to over 90% in two Indigenous Comarcas
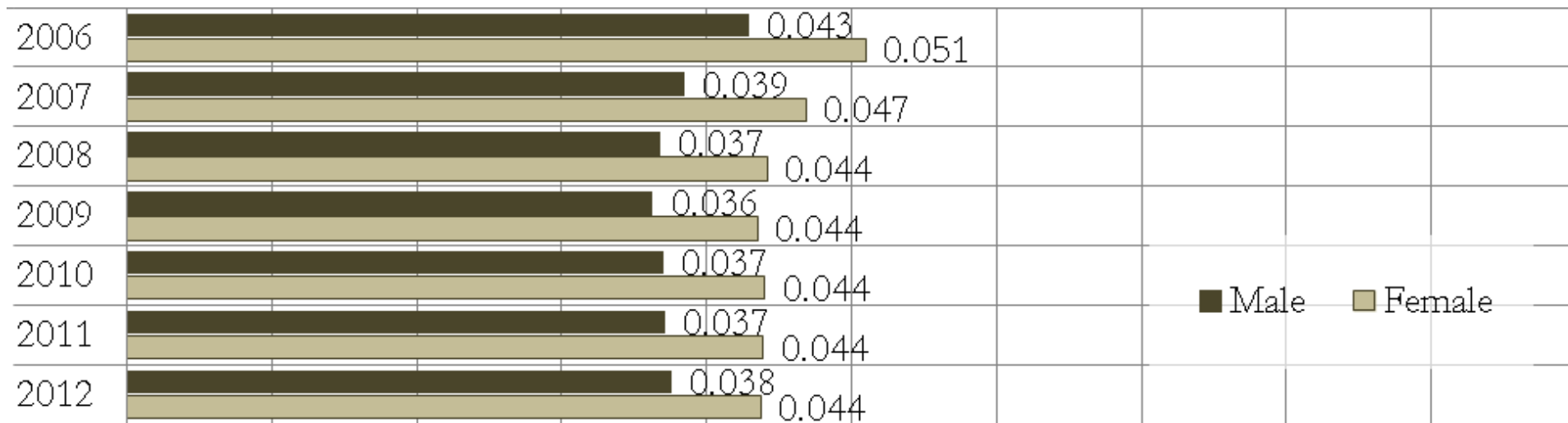
Leave No One Behind
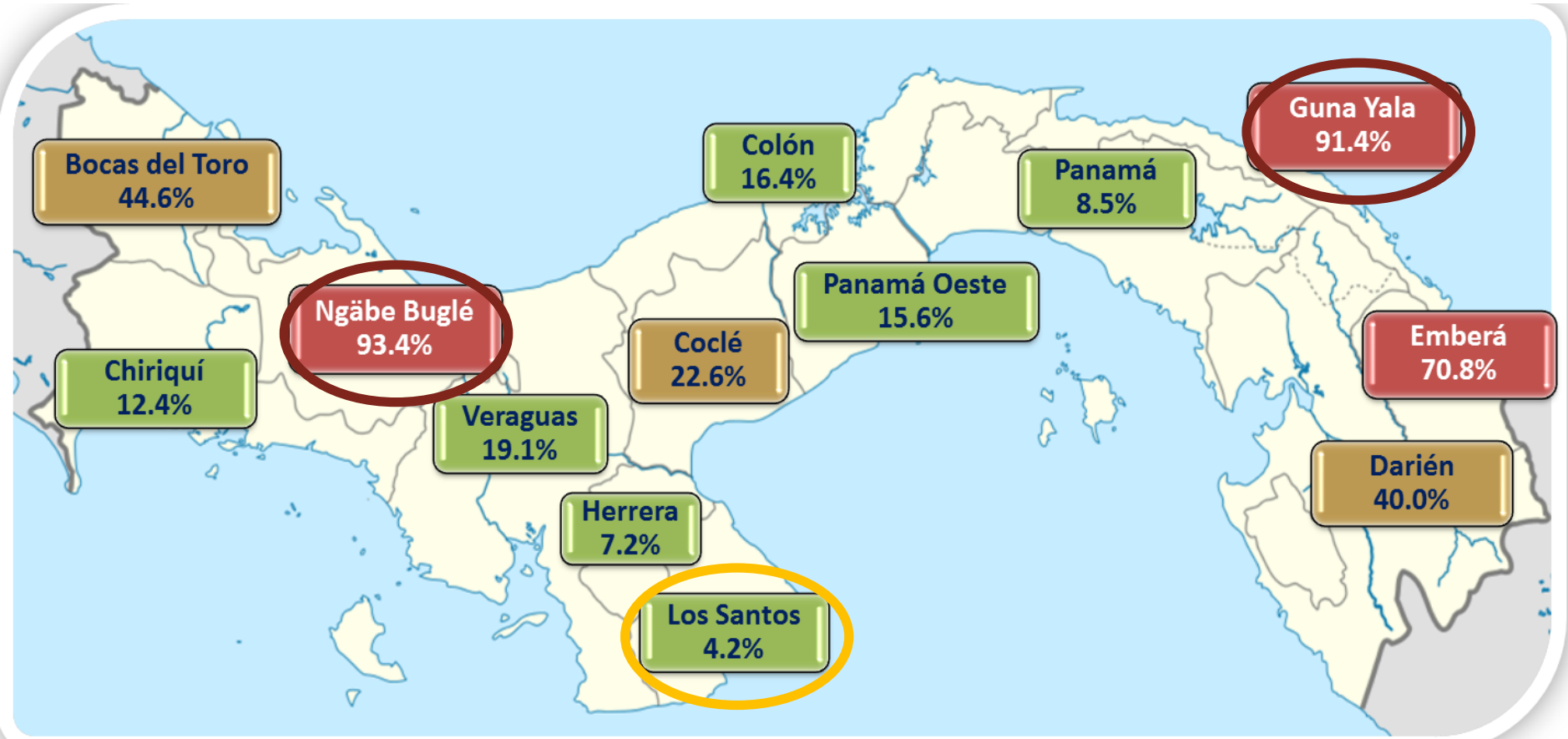
Pakistan: the poorest district reduced MPI most

Starting MPI value vs Absolute Reduction of MPI
2004-2015

Leave No One Behind

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Multidimensional Poverty across Europe
by Gender and Year

	Male	Female
2006	0.043	0.051
2007	0.039	0.047
2008	0.037	0.044
2009	0.036	0.044
2010	0.037	0.044
2011	0.037	0.044
2012	0.038	0.044

Alkire & Apablaza 2016 in Marlier et al.

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Fig. 6. MPI and income poverty disaggregations by age cohorts for children and adults
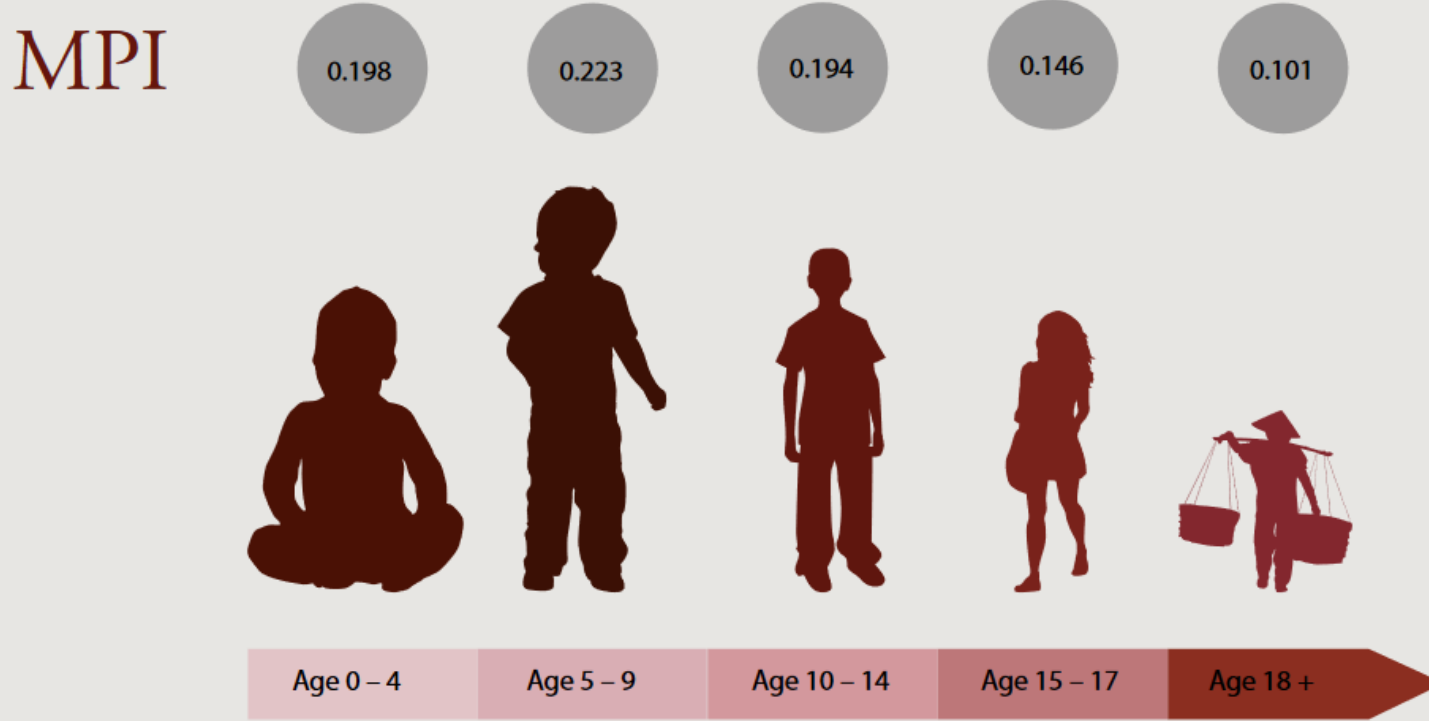
	Age 0 – 4	Age 5 – 9	Age 10 – 14	Age 15 – 17	Age 18 +
Headcount (H)	37.2	41.5	37.5	30.1	21.0
Intensity (A)	53.1	53.8	51.7	48.5	48.0
$1.90/day (H)	21.0	21.5	18.7	14.6	9.2

MPI: 0.198, 0.223, 0.194, 0.146, 0.101

- Size of figures reflects Headcount
- Colour of figures reflects Intensity
- Global MPI 2017 figures found *here*
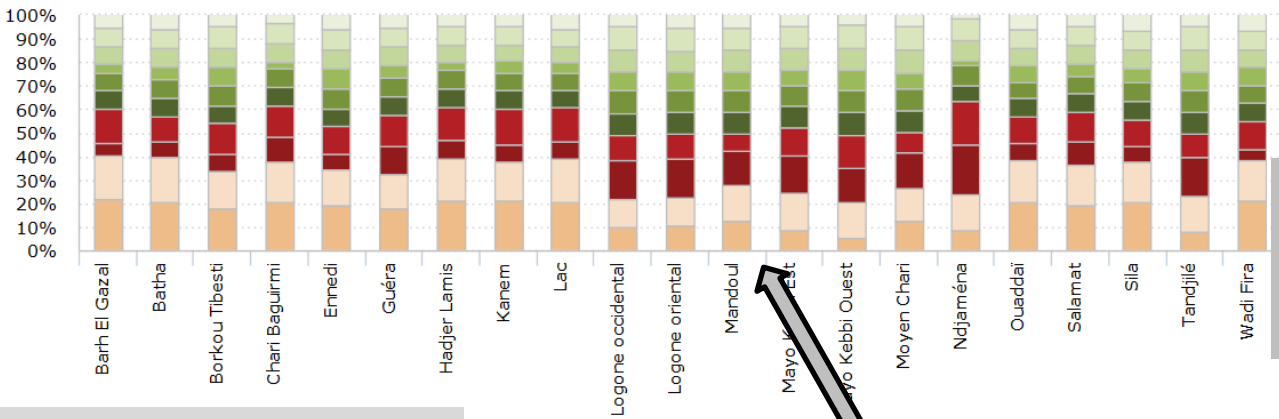- World Bank 2016 decomposition found *here*

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Across 103 countries and 5.4 billion people

Half the MPI poor people are children

Leave No One Behind
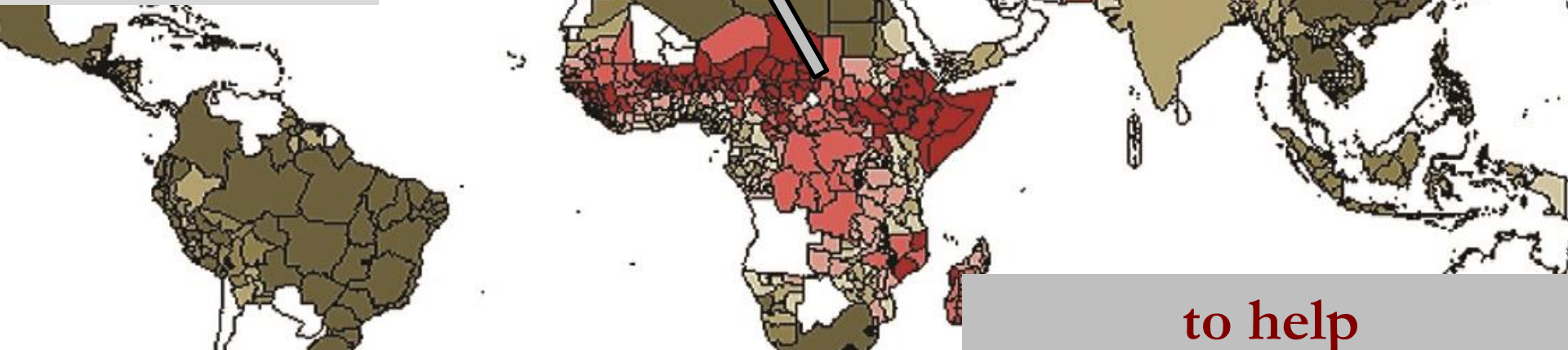
An MPI offers: a Headline, Disaggregation & Interlinkages

to inform integrated action

to complement monetary measures

Percentage Contribution of Each Indicator to the MPI at the Sub-national Level

OPHI MPI

Categories (x-axis): Barh El Gazal, Batha, Borkou Tibesti, Chari Baguirmi, Ennedi, Guéra, Hadjer Lamis, Kanem, Lac, Logone occidental, Logone oriental, Mandoul, Mayo Kebbi Est, Mayo Kebbi Ouest, Moyen Chari, Ndjaména, Ouaddaï, Salamat, Sila, Tandjilé, Wadi Fira

Example: the Global MPI

to help
Leave No One Behind

''**Poverty measures should reflect the multidimensional nature of poverty.**''

Ban Ki Moon (Dec, 2014), Former UN Secretary

www.ophi.org.uk   www.mppn.org