



Global Multidimensional Poverty: Key Findings



Conference on How Can Science and Technology contribute to the reduction of poverty and inequality



End Poverty in all its forms everywhere



 SDG 1.2: 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.





GLOBAL MULTIDIMENSIONAL POVERTY INDEX 2018

The Most Detailed Picture to Date of the World's Poorest People

https://ophi.org.uk/multidimensional-poverty-index/global-mpi-2018/#t1



What is the global MPI?

Developed in 2010 by UNDP & OPHI for the UNDP flagship publication of the Human Development Report 2010 (Alkire & Santos, 2010; 2014).

• Updated annually to include newly released data.



What is new in 2018?

- In 2018, OPHI and UNDP undertook a joint revision of the global MPI, adjusting five of its ten indicators to better align the global MPI with the SDGs.
- Results cover 100+ countries. Disaggregated by over 1000 sub-national regions, as well as by ruralurban areas and age groups. Particularly useful in identifying people who are left behind in multiple SDGs.







The global MPI 2018

A person who is deprived in <u>1/3 or more</u> of the weighted indicators is MPI poor.

DIMENSIONS OF POVERTY	INDICATOR	SDG AREA	DEPRIVED IF	WEIGHT
l la site	Nutrition	SDG 2	Any person under 70 years of age for whom there is nutritional information is undernourished.	1/6
Health	Child mortality	SDG 3	Any child has died in the family in the five-year period preceding the survey.	1/6
DIMENSIONS OF POVERTY Health Education	Years of schooling	SDG 4	No household member aged 10 years or older has completed six years of schooling.	1/6
	School attendance	SDG 4	Any school-aged child ⁺ is not attending school up to the age at which he/she would complete class 8.	1/6
Living Standards	Cooking fuel	SDG 7	A household cooks with dung, agricultural crop, shrubs, wood, charcoal or coal.	1/18
	Sanitation	SDG 11	The household's sanitation facility is not improved (according to SDG guidelines) or it is improved but shared with other households.	1/18
	Drinking water	SDG 6	The household does not have access to improved drinking water (according to SDG guidelines) or safe drinking water is at least a 30-minute walk from home, roundtrip.	1/18
	Electricity	SDG 7	The household has no electricity.	1/18
	Housing	SDG 11	The household has inadequate housing: the floor is of natural materials or the roof or walls are of rudimentary materials.	1/18
	Assets	SDG 1	The household does not own more than one of these assets: radio, TV, telephone, computer, animal cart, bicycle, motorbike, or refrigerator, and does not own a car or truck.	1/18

The global MPI 2018 - definitions

- A person who is deprived in <u>1/5 or more</u> but less than 1/3 of the weighted indicators is vulnerable to be MPI poor.
- A person who is deprived in <u>1/3 or more</u> of the weighted indicators is **MPI poor**.
- A person who is deprived in <u>1/2 or more</u> of the weighted indicators is severely MPI poor.



How do you calculate the MPI?

The MPI uses the Alkire & Foster (2011) Method:

Formula: MPI =
$$M_0 = H \times A$$

1) Incidence or the headcount ratio $(H) \sim$ the percentage of people who are poor.

2) Intensity of people's deprivation $(A) \sim$ the average share of dimensions (proportion of weighted deprivations) people suffer at the same time. It shows the *joint distribution* of their deprivations.



Data: Surveys (MPI 2018)

- 51 Demographic & Health Surveys (DHS)
- 43 Multiple Indicator Cluster Surveys (MICS)
- 2 DHS-MICS
- 3 PanArab Project for Family Health (PAPFAM)
- 6 national surveys: China (CFPS), Ecuador (ECV), Jamaica (JSLC), Mexico (ENSANUT), South Africa (NIDS), Brazil (PNAD).

Overall datasets are 2006-2016/17. 96 countries have data 2010-2016. 63 countries have data 2014-2016.



KEY FINDING: 1.3 BILLION PEOPLE LIVE IN MULTIDIMENSIONAL POVERTY IN THE 100+ COUNTRIES COVERED

This represents **over 23%** – nearly a quarter – of the population in the countries for which the 2018 MPI is calculated.

And 46% of the 1.3B (611M) are in <u>severe</u> poverty.

How are they poor? What deprivations do these 1.3b experience?

PEOPLE MPI POOR AND DEPRIVED IN	MILLION	SHARE OF MPI POOR
COOKING FUEL	1.218	91%
HOUSING	1064	80%
SANITATION	1.058	79%
NUTRITION	827	62%
ELECTRICITY	740	56%
YEARS OF SCHOOLING	671	50%
WATER	602	45%
ASSETS	585	44%
SCHOOL ATTENDANCE	493	37%
CHILD MORTALITY	173	13%

KEY FINDING: SOME TWO-THIRDS OF THE WORLD'S MPI POOR LIVE IN MIDDLE INCOME COUNTRIES

A. Where Do the World's Poor Live?



But nearly 65% of people in Low Income Countries are poor compared to 18% on average in middle income countries.





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THE MPI ACROSS MAJOR GEOGRAPHIC REGIONS







Human Development Initiative

KEY FINDING: 85% OF MPI POOR IN THE WORLD LIVE IN

RURAL AREAS



LAC: Lower severity but higher vulnerability

- MPI- LAC: 20 countries 516 million people
- 8% of people (around 40 million) are MPI poor – Average of 43% of weighted deprivations
- 2% (11 million) are in severe poverty

• 8% (around 40 million) are vulnerable to MPI poverty.



KEY FINDING: NEARLY HALF OF THE MPI POOR PEOPLE ARE CHILDREN

- 665 million children live in MPI poverty
- 34% of children in the world are multidimensionally poor - On average deprived in 52% of the weighted indicators (vs. 18% incidence and 47% intensity for adults).
- 18% of children live in **severe** poverty.
- 84% of poor children live in SSA and SA



• 38% of poor children live in LICs; 62% in MICs.

Amudha. 14-years old girl. Interviewed by students of Lady Doak College, Madurai, India.



Incidence and Intensity of MPI Child Poverty by Region



The global MPI 2018





The global MPI 2018 – 1127 subnational regions





INFORMING POLICY:

THE MPI SHOWS THE SHAPE OF

POVERTY FOR

EACH GROUP – AND IT VARIES.

percent)

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Breaking down the MPI by indicator to show the composition of poverty in a country

Example: Tajikistan and Peru have **similar MPI levels**, but **they differ markedly in the poverty compositon**. In Peru years of schooling contributes 18 percent of the MPI while in Tajikistan it is only 1 percent.





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Growth &

Multidimensional Poverty

Santos, Dabus & Delbianco (2019), Journal of Develoment Studies

First Difference Estimator Model (Ravallion y Chen, 1997)

$\Delta log P_{it} = \gamma + \beta \Delta log \mu_{it} + \Delta \varepsilon_{it}$

- $\Delta logPit$: the change in (the log of) two observed MPI values between some point in 1999 and 2014.
- $\Delta loguit$ is the growth rate (the mean value over the five years previous to the poverty measure observation).
- β : elasticity of poverty to growth



Data

• Unbalanced panel of 78 countries with 2 or more MPI observations, a total of 105 *pairs* of observations.

- The average distance between two point observations is 5.2 years.
- Data Sources: OPHI for MPI, WDI for the explanatory variables.



	Poverty Elasticity to Growth P Var: change in log(MPI)							
		1	2	3	4	5	6	
	GR	-0.56*	-1.20**	-0.56*	-0.57*	-0.55*	-0.72**	
	Gini		-0.10					
	Trad.			-0.02			0.04	
	Х				0.08			
	Μ				-0.10			
	Ind.					-0.54		
	Ss.					-0.56		
	Mnf.						-0.25	
	R2	0.03	0.12	0.03	0.04	0.06	0.06	
	Ν	100	65	100	100	96	94	
0]	PHI ^{Oxford} Human	Poverty & Development Initiativ	e				UNIVERSITY OF OXFORD	

Key Results on Growth & Poverty

- A 1% increase in the average growth rate leads –on average– to a reduction of 0.56% in MPI and of 0.73% in H
- The impact of growth is bigger:
 - On multidimensional poverty **INCIDENCE** than over incidence adjusted by intensity.
 - On **INCOME** poverty than over multidimensional poverty
- Other explanatory variables are non-significant and essentially do not change the elasticity. But results from cross-section model suggests that countries that export more, have a bigger industrial and services sector, and better control of corruption, have lower MD poverty.







Use of the Multidimensional Poverty Index in Public Policy

Prosperidad.social You 🌆 Prosperidadsocial_Col 🈏 ProsperidadCol 💽 ProsperidadCol

Summarizing: We have used MPI :

- **1** To quantify how many people are living with multiple deprivation
- 2 To encourage institutional coordination
- **3** To track behavior of different poverty dimensions
- 4 To target social programs to the poorest municipalities
- **5** As a criterion for entry and exit from the strategy for overcoming extreme poverty
- 6 As a tool for prioritizing interventions
- 7 Multidimensional poverty is the Core Agenda 2030



To encourage institutional coordination



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Atkinson's Report Recommendations for Monitoring Global Poverty

Recommendation 19: Use of an MPI

Recommendation 19: "Complementary Indicators should include a multidimensioned poverty indicator based on the counting approach" p xxi and p 170-174. (Complementing the \$1.90/day measure)

The MPI should use the <u>same methodology</u> as UNDP's MPI – "the adjusted headcount ratio" from a 'counting' method p 171

Dimensions to Consider

- 1. Nutrition
- 2. Health status
- 3. Education
- 4. Housing conditions
- 5. Access to work
- 6. Personal security

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Report of the Commission on Global Poverty

CTS WORLD BANK GROUP

The global MPI 2018





Some Global Poverty Measures

• \$1.90/day •

• Global MPI







Global MPI vs. WB 2018 MPM

• Global MPI

Dimensions to Consider

- 1. Nutrition
- 2. Health status
- 3. Education
- 4. Housing conditions

- 5. Access to work
- 6. Personal security

• WB 2018 MPM

Dimensions to Consider

- 1. Nutrition
- 2. Health status
- 3. Education
- 4. Housing conditions
- 5. Access to work
- 6. Personal security (**Monetary**)



Achieving SDG 1.2

- Data Challenges advance further on international consensus on minimum thresholds, collect harmonized data, nutrition & health alongside income?
- **Policy Challenges** enhance pro-poor growth accompanied by specific & interconnected policies across the different fundamental dimensions.



GLOBAL MULTIDIMENSIONAL POVERTY INDEX 2018 The Most Detailed Picture to Date of the World's Poorest People WWW.OPHI.ORG.UK



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Thank You!