Addressing Multi-Dimensions of Poverty and Inequality

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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!)
MPIs jointly analyse multiple SDGs

Example: Global Multidimensional Poverty Index (MPI)

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Indicator</th>
<th>Related SDG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>Nutrition</td>
<td>SDG 2 (Zero Hunger)</td>
</tr>
<tr>
<td></td>
<td>Child Mortality</td>
<td>SDG 3 (Health &amp; Well-being)</td>
</tr>
<tr>
<td>Education</td>
<td>Years of Education</td>
<td>SDG 4 (Quality Education)</td>
</tr>
<tr>
<td></td>
<td>School Attendance</td>
<td>SDG 4 (Quality Education)</td>
</tr>
<tr>
<td>Living Standard</td>
<td>Cooking Fuel</td>
<td>SDG 7 (Affordable &amp; Clean Energy)</td>
</tr>
<tr>
<td></td>
<td>Sanitation</td>
<td>SDG 6 (Clean Water &amp; Sanitation)</td>
</tr>
<tr>
<td></td>
<td>Drinking Water</td>
<td>SDG 6 (Clean Water &amp; Sanitation)</td>
</tr>
<tr>
<td></td>
<td>Electricity</td>
<td>SDG 7 (Affordable &amp; Clean Energy)</td>
</tr>
<tr>
<td></td>
<td>Floor</td>
<td>SDG 11 (Sustainable Cities &amp; Communities)</td>
</tr>
<tr>
<td></td>
<td>Assets</td>
<td>SDG 1 (No Poverty)</td>
</tr>
</tbody>
</table>
How do these connect?

- SDG Indicators covering multiple dimensions of poverty
- Integrated, Multisectoral Policies (break Silos & coordinate)
- Leaving No One Behind (Disaggregated Data)
- MPIs: a headline and the indicator level detail on interlinkages
- 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 multidimensional 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
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.
How to make a MPI

(Multidimensional Poverty Index)
Methodology for the National and Global MPIs

1. Select Indicators, Cutoffs, Values

2. Build a deprivation score for each person

3. Identify who is poor

4. Use: MPI, Incidence Intensity & Composition

- Health
  - Nutrition
  - Child Mortality
- Education
  - Years of Schooling
  - School Attendance
- Living Standard
  - Cooking Fuel
  - Improved Sanitation
  - Safe Drinking Water
  - Electricity
  - Flooring
  - Assets

Grace is Deprived In

- Health
  - Nutrition
- Education
- Living Standard

Three Dimensions

- Two Dimensions
  - Toilet
  - Water
  - Electricity
- One Dimension
  - Nutrition
  - Toilet
  - Water
  - Electricity
  - Assets

33%
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
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

Ecuador

Panama

Mexico

Chile
Comparable MPIs (Global MPI, ECLAC MPI)

- Like $1.90/day and $3.10/day poverty measures
- Can also compare countries (& subnational groups, over time)
- Could track SDG-1: halve 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 as a Governance Tool
New National MPIs launched as official statistics since September 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)
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Voluntary Reviews by
- Bangladesh
- Chile
- Costa Rica
- Egypt
- Honduras
- Indonesia
- Panama
- Philippines
- Sierra Leone
- Tajikistan all mention MPIs.
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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.
Policy makers are using their national MPIs to:

1. Complement monetary poverty statistics
2. Track poverty over time (official statistics)
3. Allocate resources by sector and by region
4. Target marginalized regions, groups, or households
5. Coordinate policy across sectors and subnational levels
6. Adjust policies by what works (measure to manage)
7. Leave No One Behind see the poorest & track trends
8. Be Transparent so all stakeholders engage – NGOs, • 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

La pobreza multidimensional: 20,4%

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 al estándar que regía bajo la forma tradicional, situado en $66,084 por individuo.

“Está 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”, aseguró la titular de Desarrollo Social.

De la misma forma, una persona es indigente si está en extrema pobreza si su ingreso es menor a $91,274. Bajo el mécanismo 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 $264,536 a $361,310, mientras que para la 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).

Medir la vulnerabilidad social más allá del factor de ingresos económicos es 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 superen 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 carenciada 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.
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Pakistan’s MPI Incidence (H), 2004-2015
Descomposición del IPM

¿Por qué son pobres?

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

<table>
<thead>
<tr>
<th>Indicador</th>
<th>% Carencia</th>
<th>Presupuesto Ejecutado</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sin acceso a educación</td>
<td>22.8%</td>
<td>€217,477,650,077.62</td>
</tr>
<tr>
<td>Rezago educativo</td>
<td>27.6%</td>
<td>€0</td>
</tr>
<tr>
<td>Sin bachillerato</td>
<td>27.6%</td>
<td>€0</td>
</tr>
<tr>
<td>Bajo capital humano</td>
<td>61.3%</td>
<td>€8,570,200,000.00</td>
</tr>
</tbody>
</table>

MPI: used to diagnose Mismatches between objectives & Programmes/allocations
Costa Rica: Because the 2015 MPI showed big mismatches between policy objectives and allocations, President Solis issued a Presidential Decree that MPI must be part of allocation formulae in the future.

The 2017 budget reflects the MPI

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THE 13TH FIVE-YEAR PLAN
FOR ECONOMIC AND SOCIAL DEVELOPMENT OF
THE PEOPLE’S REPUBLIC OF CHINA
(2016–2020)

PART XIII  THE FIGHT AGAINST POVERTY
Chapter 56  Take Targeted Poverty Reduction Measures
Chapter 57  Support Accelerated Development of Poor Areas
Chapter 58  Improve Poverty Reduction Systems
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.

**Dimensions**

**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**

In order to build 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

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

**NEW PARADIGM:** From the sectorial glance to a intersectorial and transversal approach

**FULL COOPERATION BETWEEN THE FEDERAL GOVERNMENT, GOVERMENTS FROM ALL STATES AND MUNICIPALITIES**
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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
### Multidimensional Poverty across Europe by Gender and Year

#### Alkire & Apablaza 2016 in Marlier et al.

<table>
<thead>
<tr>
<th>Year</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>0.043</td>
<td>0.051</td>
</tr>
<tr>
<td>2007</td>
<td>0.039</td>
<td>0.047</td>
</tr>
<tr>
<td>2008</td>
<td>0.037</td>
<td>0.044</td>
</tr>
<tr>
<td>2009</td>
<td>0.036</td>
<td>0.044</td>
</tr>
<tr>
<td>2010</td>
<td>0.037</td>
<td>0.044</td>
</tr>
<tr>
<td>2011</td>
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<td>0.044</td>
</tr>
<tr>
<td>2012</td>
<td>0.038</td>
<td>0.044</td>
</tr>
</tbody>
</table>
Across 103 countries and 5.4 billion people, half the MPI poor people are children.

Leave No One Behind.

http://www.ophi.org.uk/multidimensional-poverty-index/mpi-resources/#2016
An MPI offers: a Headline, Disaggregation & Interlinkages to inform integrated action to complement monetary measures.

Example: the Global MPI

“Poverty measures should reflect the multidimensional nature of poverty.”
Ban Ki Moon (Dec, 2014), Former UN Secretary

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