PAN-AFRICAN CONFERENCE ON INEQUALITIES IN THE CONTEXT OF STRUCTURAL TRANSFORMATION

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in partnership with:
Multidimensional Poverty Measurement: An Index MPI 2015+

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Why such interest?

**Ethics** “Human lives are battered and diminished in all kinds of different ways.” *Amartya Sen*

**Overview** “While assessing quality-of-life requires a plurality of indicators, there are strong demands to develop a single summary measure.” *Stiglitz Sen Fitoussi Commission Report*

**Effectiveness** “Acceleration in one goal often speeds up progress in others;” to meet MDGs strategically we need to see them together. *Roadmap towards Implementation …*

**Visibility** Track progress towards national plan; M&E.

**Feasibility** Surveys; direct measures; computations feasible
Income poverty is not a proxy for key non-income deprivations

Table 5. Lack of overlaps between monetary and CA poverty

<table>
<thead>
<tr>
<th>Capability poverty measured as</th>
<th>Education</th>
<th>Nutrition/health</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Children</td>
<td>Adults</td>
</tr>
<tr>
<td>% of CA poor not in monetary poverty:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>India</td>
<td>43</td>
<td>60</td>
</tr>
<tr>
<td>Peru</td>
<td>32</td>
<td><strong>37</strong></td>
</tr>
<tr>
<td>% of monetary poor not CA poor:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>India</td>
<td>65</td>
<td>38</td>
</tr>
<tr>
<td>Peru</td>
<td>93</td>
<td>73</td>
</tr>
</tbody>
</table>

Source: Franco et al. (2002).

What is the MPI?

- The MPI is an internationally comparable index of poverty for 100+ developing countries.
- It was launched in 2010 in the *Human Development Report*, and updated in 2011 and 2013 (next launch: June 2014).
- The MPI methodology is being adapted for national poverty measures – using better indicators for that policy context.
- The MPI stands on the shoulders of past measures, such as the HPI.
Global Multidimensional Poverty Index 2013
UNDP Human Development Report 2013 & Alkire Conconi and Roche 2013

Develop a deprivation profile for each person, using a set of indicators, cutoffs and weights. Example:

Three Dimensions of Poverty

Ten Indicators
- Nutrition
- Child Mortality
- Years of Schooling
- School Attendance
- Cooking Fuel
- Improved Sanitation
- Safe Drinking Water
- Electricity
- Flooring
- Assets
Identify someone as poor if he or she is deprived in 33% or more of the weighted indicators.

**MPI 2015+:** use new indicators – you decide.
The MPI is the product of two components:

\[ \text{MPI} = H \times A \]

1) *Incidence* \~ the percentage of people who are poor, or the headcount *H*.

2) *Intensity* of people’s deprivation \~ the average percentage of dimensions in which poor people are deprived *A*. 
Policy Interest – Why?

1. **Intuitive** – easy to understand
2. **Birds-eye view** - can be unpacked
   a. by region, ethnicity, rural/urban, etc.
   b. by indicator, to show composition
   c. by ‘intensity’ to show inequality among poor
3. **Adds Value:**
   a. focuses on the multiply deprived
   b. shows joint distribution of deprivation.
4. **Incentives** to reach the poorest of the poor
5. **Flexible:** you choose indicators/cutoffs/values
6. **Robust** to wide range of weights and cutoffs
7. **Academically Rigorous**
MPI 2013: 104 Developing Countries:

~ 29 Low Income Countries, (681M), 86%
~ 67 Middle Income Countries, (4634), 93%:
  ~ 42 Lower Middle Income (2433M) 98%
  ~ 28 Upper Middle Income (2201M) 89%
~ 8 High Income Countries (43M), of which:
  ~ 5 OECD (29M)
  ~ 3 non-OECD (13M)

**Total Population: 5.4 Billion people**
Which is 78% of the world’s population
(population figures from 2010; data from 2002-2011).
Half of the world’s MPI poor live in South Asia, and 29% in Sub-Saharan Africa

**MPI poor people by region**

- **South Asia**: 29.8%
- **East Asia and Pacific**: 34.6%
- **Sub-Saharan Africa**: 14.3%
- **Europe and Central Asia**: 7.5%
- **Arab States**: 4.2%
- **Latin America and Caribbean**: 9.5%
- **Europe and Central Asia**: 0.7%
- **Arab States**: 2.1%
- **Latin America & Caribbean**: 2.2%
- **East Asia & Pacific**: 14.9%
- **South Asia**: 51.3%
Most poor people live in middle-income countries. 72% of MPI poor people live in Middle Income Countries.

Total Population by Income Category

- High Income: 0.8%
- Lower Middle Income: 45.4%
- Upper Middle Income: 41.1%
- Low Income: 12.7%

2010 Population Data

MPI Poor Population

- High Income: 0.1%
- Upper Middle Income: 12.3%
- Low Income: 27.5%
- Lower Middle Income: 60.1%
DISPARITIES
MPI varies greatly within income categories.
Sub-national disparities in MPI

(Highest disaggregation available)
Ethiopia’s Regional Disparities
Ethiopia’s Regional Disparities

The graph illustrates the relationship between the percentage of people considered poor (H) and the average intensity of poverty (A) across different regions in Ethiopia. The regions marked are Addis Ababa, Harari, Dire Dawa, Afar, and Somali. The data shows a positive correlation, indicating that as the percentage of people considered poor increases, the average intensity of poverty also tends to increase.
Nigeria’s Regional Disparities

![Graph showing Nigeria’s regional disparities](image-url)
Nigeria’s Regional Disparities

The graph illustrates the relationship between the percentage of people considered poor (H) and the average intensity of poverty (A) across different regions of Nigeria. The data points for the South West, Nigeria as a whole, and the North East are clearly marked.

- The South West region shows a moderate average intensity of poverty with a corresponding percentage of people considered poor.
- Nigeria as a whole has a higher average intensity of poverty compared to the South West.
- The North East region has the highest percentage of people considered poor, indicating significant disparity.

The linear trend line suggests that there is a direct correlation between the percentage of people considered poor and the average intensity of poverty across these regions.
Ghana’s Regional Disparities

The graph shows the relationship between the percentage of people considered poor (H) and the average intensity of poverty (A) for Ghana. The data points indicate a positive correlation, suggesting that as the percentage of poor people increases, the average intensity of poverty also increases.
Ghana’s Regional Disparities

The graph illustrates the relationship between the percentage of people considered poor (H) and the average intensity of poverty (A) across various regions in Ghana. The data points for Greater Accra, Ghana, and the Northern region are highlighted, showing a general trend of increased poverty intensity with a higher percentage of people considered poor. The graph suggests a stark disparity between regions, with the Northern region showing a higher percentage of poverty compared to Greater Accra.
The composition of MPI can inform policy. It can change across countries and states.
The composition of MPI can inform policy. It can change across countries and states.
The regional MPI is highest in Sub-Saharan Africa – but...?
South Asia has a lot of diversity.

Within regions of Nepal, Bangladesh, Pakistan, and India 12% to 90% of people are MPI poor.
The 26 poorest regions in South Asia Countries

Western Mountain in Nepal (poorest) to West Bengal in India (least poor of the 26 regions).
The 26 poorest regions in South Asia Countries

Together these regions have more MPI poor people than Sub-Saharan Africa.

519 mill. vs 473 mill.
The 26 poorest regions in South Asia Countries

And their poverty is as intense as Sub-Saharan Africa.

Their combined MPI is greater than that of Sub-Saharan Africa.
A sub-regional MPI within South Asia is as large and as high as Sub-Saharan Africa’s.
Dynamics:
How have we reduced MPI?
Analysis over time includes 12 African Countries

Poorest Countries, Highest MPI

The size of the bubbles is a proportional representation of the total number of MPI poor in each country.
Compare Speed of Poverty Reduction (MPI)

18 countries have statistically significant MPI reduction at $\alpha=0.05$

Largest Absolute poverty reduction

Nepal
Rwanda
Bangladesh
Ghana
Tanzania

Annualized Absolute Change in MPI

Annualized Absolute Variation in MPI
Changes in H (MPI) vs $1.25$ headcount (Absolute)

All ‘top performing’ countries reduced MPI as fast or faster than income poverty.
Reducing incidence or intensity?

Annual Absolute Variation in Intensity (A)

Annual Absolute Variation in % Headcount Ratio (H)

Bad/Bad

Reduction in Intensity of Poverty (A)

Bad/Good

Reduction in Incidence of Poverty (H)

Good/Good

Bad/Good
Reducing incidence or intensity?

Malawi vs Ethiopia
Ghana vs Bangladesh: Same reduction in incidence but different reduction in intensity of poverty
Let us Take a Step Back in Time

Percentage of People Considered Poor (H)

Average Intensity of Poverty (A)

Ethiopia 2000
Nigeria 2003
Ghana 2003
Nigeria 2003-2008 (Reduced H more than A)
Annual Absolute Variation in % Intensity

Nigeria
MPI2003 = 0.368
MPI2008 = 0.310

Ghana
MPI2003 = 0.309
MPI2008 = 0.144

Ethiopia
MPI2003 = 0.678
MPI2008 = 0.562

Higher reduction in incidence

Higher reduction in intensity

Good / Bad

Bad / Bad

Good / Good

Bad / Good

Annual Absolute Variation in % incidence
Inside the Regions of Nigeria

Annualized Absolute Change in the Percentage Who is Poor and Deprived in...

- assets
- cooking fuel
- flooring
- safe drinking water
- improved sanitation
- electricity
- nutrition
- child mortality
- years of schooling
- school attendance

Regions:
- North Central
- North East
- North West
- South East
- South South
- South West
National MPIs

- Official National Statistics (Colombia, Mexico, Brazil, Chile, Ecuador, El Salvador, OECS, Bhutan, Philippines, Malaysia, Vietnam, Iraq, China, Pacific Islands, Turkey, Rwanda, Morocco, Mozambique, Nigeria, Arab States, etc.)
- Track poverty reduction efficiently
- Analyse poverty by state, group (indigenous)
- Monitor indicator changes; coordinate delivery
- Geographical targeting & policy design
- Linked instruments for individual targeting
The Global Multidimensional Poverty Peer Network (MPPN) – next event 7-8 July

Angola, Bhutan, Brazil, Chile, China, Colombia, ECLAC, Ecuador, El Salvador, Dominican Republic, Germany, India, Iraq, Malaysia, Mexico, Morocco, Mozambique, Nigeria, OECD, the Organization of Caribbean States, OPHI, Peru, Philippines, SADC, and Vietnam