Global Multidimensional Poverty Index 2014

Sabina Alkire, Mihika Chatterjee, Adriana Conconi, Suman Seth and Ana Vaz | June 2014

The Global Multidimensional Poverty Index (MPI) is an index of acute multidimensional poverty that covers over 100 developing countries. It assesses the nature and intensity of poverty at the individual level, by directly measuring the overlapping deprivations poor people experience simultaneously. It provides a vivid picture of how and where people are poor, within and across countries, regions and the world, enabling policymakers to better target their resources at those most in need through policy interventions that tackle the many different aspects of poverty together.

This brief explains how the Global MPI is constructed and how it can be used, and summarises a number of analyses of the Global MPI figures released in June 2014.

Inside this briefing

- Page 2: What is the Global Multidimensional Poverty Index (MPI)? See how it’s made, by directly measuring overlapping deprivations
- Page 3: Global MPI 2014: Distribution and Disparity
  An overview of the 2014 findings
- Page 4: Reducing Multidimensional Poverty over Time: Pace and Patterns in 34 countries
- Page 5: Destitution: Who and Where are the Poorest of the Poor? We find out using a new measure
- Page 6: Poverty Levels in Rural and Urban Areas – and how they differ
- Page 7: Inequality Among the MPI Poor: Levels and Trends using new and cutting-edge measures
- Page 8: Multidimensional Poverty and Income Poverty: Comparing Headcount Ratios View at a glance how MPI and $1.25/day poverty headcount ratios vary

Key findings from 2014

- A total of 1.6 billion people are living in multidimensional poverty; more than 30% of the people living in the 108 countries analysed
- Of these 1.6 billion people, 52% live in South Asia, and 29% in Sub-Saharan Africa. Most MPI poor people - 71% - live in Middle Income Countries
- The country with the highest percentage of MPI poor people is still Niger; 2012 data from Niger shows 89.3% of its population are multidimensionally poor
- Of the 1.6 billion identified as MPI poor, 85% live in rural areas; significantly higher than income poverty estimates of 70-75%
- Of 34 countries for which we have time-series data, 30 - covering 98% of the MPI poor people across all 34 - had statistically significant reductions in multidimensional poverty
- The countries that reduced MPI and destitution most in absolute terms were mostly Low Income Countries and Least Developed Countries
- Nepal made the fastest progress, showing a fall in the percentage of the population who were MPI poor from 65% to 44% in a five-year period (2006-2011)
- Nearly all countries that reduced MPI poverty also reduced inequality among the poor
- Across the 49 countries analysed so far, half of all MPI poor people are destitute; over 638 million people
- India is home to 343.5 million destitute people – 28.5% of its population is destitute. Overall in South Asia, over 420 million people are destitute
- In Niger, 68.8% of the population is destitute – the highest share of any country

Global MPI 2014: Updates and coverage

- In 2014, we have added two new countries and updated 31; the index now includes 108 countries
- The Global MPI has been calculated for 780 sub-national regions across 69 countries
- The 108 countries analysed include 31 Low-Income Countries, 67 Middle-Income Countries and 10 High-Income Countries
- These countries have a total population of 5.4 billion people, which is 78% of the world’s population
- Data on destitution are currently available for 49 countries, and we will add others soon
- Changes in MPI over time have been analysed for 34 countries and 338 sub-national regions, covering 2.5 billion people
WHAT IS THE GLOBAL MULTIDIMENSIONAL POVERTY INDEX (MPI)?

Aruna - an individual poverty profile

Aruna, her husband and their four children live beside the railway tracks beneath a bridge in Mumbai, India. Their only light comes from the streetlights, and they rely on a pay-and-use toilet, which closes at night, for water and sanitation. 30-year-old Aruna earns a living by making and selling flower garlands with a gentle smile, and the children blow up balloons and sell them at the seaside each day after school, returning ‘home’ at 10pm. Aruna and her family are multidimensionally poor.

CONSTRUCTING THE GLOBAL MPI

The Global MPI was created using a method developed by Sabina Alkire, OPHI Director, and James Foster, OPHI Research Associate and Professor of Economics and International Affairs at George Washington University (2011). The Alkire Foster method is flexible and can be used with different dimensions, indicators, weights and cutoffs to create measures specific to different societies and situations.

The MPI is the product of two components:
- Incidence: the percentage of people who are poor (or the headcount ratio, $H$);
- Intensity: the average share of indicators in which poor people are deprived ($A$).

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

Table 1: The dimensions, indicators, deprivation thresholds and weights of the MPI

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Indicator</th>
<th>Deprived if...</th>
<th>Relative Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>Years of Schooling</td>
<td>No household member has completed five years of schooling.</td>
<td>1/6</td>
</tr>
<tr>
<td></td>
<td>Child School Attendance</td>
<td>Any school-aged child is not attending school up to the age at which they would complete class 8.</td>
<td>1/6</td>
</tr>
<tr>
<td>Health</td>
<td>Child Mortality</td>
<td>Any child has died in the household.</td>
<td>1/6</td>
</tr>
<tr>
<td></td>
<td>Nutrition</td>
<td>Any adult or child for whom there is nutritional information is malnourished.</td>
<td>1/6</td>
</tr>
<tr>
<td>Living Standard</td>
<td>Electricity</td>
<td>The household has no electricity.</td>
<td>1/18</td>
</tr>
<tr>
<td></td>
<td>Improved Sanitation</td>
<td>The household’s sanitation facility is not improved (according to MDG guidelines), or it is improved but shared with other households.</td>
<td>1/18</td>
</tr>
<tr>
<td></td>
<td>Safe Drinking Water</td>
<td>The household does not have access to safe drinking water (according to MDG guidelines) or safe drinking water is more than a 30-minute walk from home, roundtrip.</td>
<td>1/18</td>
</tr>
<tr>
<td></td>
<td>Flooring</td>
<td>The household has a dirt, sand or dung floor.</td>
<td>1/18</td>
</tr>
<tr>
<td></td>
<td>Cooking Fuel</td>
<td>The household cooks with dung, wood or charcoal.</td>
<td>1/18</td>
</tr>
<tr>
<td></td>
<td>Assets</td>
<td>The household does not own more than one radio, TV, telephone, bike, motorbike or refrigerator and does not own a car or truck.</td>
<td>1/18</td>
</tr>
</tbody>
</table>

The coloured indicators show Aruna’s deprivations: she is deprived in 66% of the MPI indicators.
THE GLOBAL MPI 2014 - DISTRIBUTION AND DISPARITY

DISTRIBUTION
The Global MPI 2014 covers 108 countries, which are home to 5.4 billion people using 2010 population data (UNDESA 2013). In 2014, a total of 1.6 billion people are living in multidimensional poverty; more than 30% of all people living in these countries.

Where do the world’s poor call home? Of these 1.6 billion people, 52% live in South Asia, and 29% in Sub-Saharan Africa. Most MPI poor people - 71% - live in Middle Income Countries.

The country with the highest percentage of MPI poor people is Niger, where 2012 data shows it has a headcount ratio (H) of 89.3%. This means that in 2014, no country has a proportion of MPI poor people higher than 90%, although subnational headcount ratios exceed 90% for 43 out of the 780 subnational regions for which we have subnational MPI figures.

DISPARITY
We can zoom in further on the MPI poor and see the disparities between people in terms of the intensity of poverty being experienced. Aruna (see opposite page) was deprived in 66% of deprivations – what deprivation scores did others experience?

Figure 2 shows this distribution for the Central African Republic and Guinea-Bissau. In both countries, nearly 77.5 percent of the population are multidimensionally poor. However, the distribution of people’s deprivation scores is quite different. Nearly 12 percent of the MPI poor in the Central African Republic experience intensities of poverty above 70%; in Guinea-Bissau, this proportion climbs to 21 percent of the MPI poor.

You can see this breakdown in each of the 108 Country Briefings, or via the Global MPI Interactive Databank - visit www.ophi.org.uk/multidimensional-poverty-index.

DATA SOURCES
The MPI relies on the most recent data available, mainly from three datasets that are publicly available and comparable for most developing countries: USAID’s Demographic and Health Survey (DHS), UNICEF’s Multiple Indicators Cluster Survey (MICS), and the WHO’s World Health Survey ( WHS).

Additionally, we used six special surveys covering urban Argentina (ENNyS), Brazil (PNDS), Mexico (ENSANUT), Morocco (ENNVM), the Occupied Palestinian Territories (PAPFAM), and South Africa (NIDS). The Global MPI was computed for different numbers of countries and dates of data.

- In 2010: 104 developing countries with data 2000-2008
- In 2011: 109 countries with data 2001-2010, including 25 new datasets
- In 2013: 104 countries with data 2002-2011, including 16 new datasets
- In 2014: 108 countries with data 2002-2013, including 33 new datasets
- Recall that the most up-to-date data in the 2010 Global MPI was from 2008; in the 2014 MPI, 57 countries have data that is more recent – from 2009-2013.

- In 2010, we observed that the poorest 8 large states in India were home to more MPI poor people than the 26 poorest African countries. If we update that comparison using MPI 2014 estimations, the poorest 8 large Indian states are home to more MPI poor people than the 28 poorest African countries (435M vs 428M), and their combined MPI values are very similar (0.374 vs 0.377).

- However this comparison is sorely affected by the fact that India’s data are from 2005/6, whereas data for 25 of those Africa countries are more recent than India’s, and 17 have data that are 2010 or later. India’s data are out of date.
In 2014, we analysed how multidimensional poverty changed in 34 countries and 338 sub-national regions covering 2.5 billion people - just over one-third of the world’s population. These nations are in every geographic region in the developing world, and include Low, Lower Middle, and Upper Middle Income Countries, with a Gross National Income per capita in 2012 ranging from $320 in Malawi to $10,040 in Gabon.

Of the 34 countries, 30 - covering 98% of the poor people across all 34 - showed statistically significant reductions in multidimensional poverty. Nepal had the fastest progress, showing a fall in MPI from 0.350 to 0.217 – about -0.027 per year – and a fall in incidence (H) from 65% to 44% in a five-year period (2006-2011). Rwanda and Ghana were close behind, reducing poverty rates by 3.4 percentage points per year. Bangladesh, Cambodia, Tanzania and Bolivia showed the next fastest reduction of MPI, reducing poverty rates between 2.5 and 3.4 percentage points, and MPI by -0.017 to -0.021 per year.

Strikingly, the countries that reduced MPI most in absolute terms were predominantly Low Income Countries and Least Developed Countries; in 2012 Nepal’s GNI per capita is $700; Rwanda’s is $600; Bangladesh’s $840; Cambodia’s $880 and Tanzania’s $570. All are Low Income Countries, with Rwanda’s pace of growth being the fastest at over 8% during the survey period.

Absolute reductions in the intensity of MPI poverty – the average share of deprivations poor people experience at once - were strongest in Rwanda, Ethiopia, Nepal, Bolivia, Niger, Tanzania, Cambodia and Ghana. These countries made most progress in ensuring their ongoing poor people are ‘less poor’, by reducing the number of hardships they experience.

BREAKDOWN BY INDICATOR

Ten countries reduced all MPI indicators significantly: Bolivia, Cambodia, Colombia, the Dominican Republic, Gabon, India, Indonesia, Mozambique, Nepal, and Rwanda. Seven countries reduced 9 MPI indicators significantly, and six countries reduced 8 MPI indicators significantly.

Countries had different profiles. Figure 3 shows how country profiles of reductions in censored headcount ratios vary: Rwanda had the highest reductions in sanitation; Ghana in school attendance; Tanzania in child mortality as well as sanitation, and Uganda in water and assets.

DISAGGREGATING BY REGION

Eight countries – Bangladesh (2007-11), Bolivia, Gabon, Ghana, Malawi, Mozambique, Niger, and Rwanda - showed statistically significant reductions in each of their subnational regions, which is truly stellar progress. And in total, 208 out of 338 regions housing 78% of the poor had statistically significant reductions in MPI.

Happily, in nine countries, the poorest subnational area made the biggest strides in reducing multidimensional poverty. In Bangladesh (2007-2011), Bolivia, Colombia, Egypt, Kenya, Malawi, Mozambique, Namibia and Niger, the poorest region reduced poverty the most.

MPI, INCOME POVERTY AND ECONOMIC GROWTH

Around half of the countries for which we have income data for a similar period reduced multidimensional poverty faster than income poverty; in the others income poverty fell faster. Bolivia, Ghana, and Rwanda cut MPI poverty two to three times faster than income poverty, while Nepal made stellar progress in both. In Nigeria and Zambia, while MPI poverty fell, income poverty actually increased.

How did poverty change across ethnic groups?

Benin and Kenya both had statistically significant reductions in MPI poverty. But when we disaggregate by ethnic groups, we see these gains were distributed very differently.

Benin reduced MPI poverty significantly for only two out of the eight main ethnic groups, and poverty reduction was practically zero among the poorest ethnic group, the Peulh, reflecting an increase in horizontal inequality among the poor.

In contrast Kenya had an excellent performance. The multidimensionally poorest group, the Somali, had the biggest poverty reduction. The Somali group reduced poverty at a yearly rate of 4.6 percent, well above the national rate of 3.5 percent. In Kenya the poorest ethnic groups are catching up.
This year the Global MPI shines a light on the poorest of the poor – the destitute. Those identified as ‘Destitute’ are already MPI poor. In addition, they are deprived in at least one-third of the same weighted indicators, but according to more extreme criteria than those used to identify the MPI poor, described in the table above; for example, two or more children in the household have died (rather than one); the household practises open defecation.

Data on destitution is available for 49 of the 108 countries analysed in 2014. These 49 countries house 1.2 billion out of the total 1.6 billion MPI poor in the complete set of 108 countries. Over the coming months we will be making data on destitution available for over 40 more countries covered by the Global MPI; check www.ophi.org.uk/multidimensional-poverty-index for updates.

### DESTITUTION – KEY FINDINGS

- **Over 638 million people are destitute across only 49 countries analysed so far.**
- **Across these 49 countries half of MPI poor people are destitute.**
- **India** is home to 343.5 million destitute people – 28.5% of its population is destitute. And overall in South Asia, over 1.6 billion people are destitute.
- **In Niger, 68.8% of the population is destitute** – the highest share of any country. In **Ethiopia** this figure is 58.1% and in **Burkina Faso, 57.5%**.
- **Ethiopia** reduced the percentage of destitute people 30 percentage points from 2000-2011.
- Of the 34 countries for which we have time-series data, **eight of the top ten** performers at tackling destitution were **Low Income Countries or Least Developed Countries**.

### ENDING DESTITUTION

In the same 34 countries as before we study how destitution has changed.\(^6\) Fully 28 of these 34 countries significantly reduced destitution, while in Armenia, Egypt, Jordan, Madagascar and Pakistan there was no change.

The good news is that in nearly all of the countries analysed, destitution is being reduced in relative annualized terms\(^7\) faster than multidimensional poverty. In **Ethiopia, Guyana, Niger and Tanzania** that is also true in absolute terms. When this happens, the poorest of the poor are being reached, and there is potential for those who are destitute to ‘catch up’.

Strikingly, the countries doing best at tackling destitution are mostly **Low Income** and **Least Developed Countries** (LICs and LDCs). The largest absolute reduction in the destitution MPI was seen in Ethiopia, followed by Niger, Ghana, Bolivia, Rwanda, Tanzania, Nepal, Haiti, Bangladesh and Zambia – all of them LICs or Least Developed Countries except Ghana and Bolivia.\(^6\)

### Table 2: The deprivation thresholds of those who are both MPI poor and destitute

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Indicator</th>
<th>Deprived if...</th>
<th>Relative Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>Years of Schooling</td>
<td>No household member has completed at least one year of schooling (≥ 1).</td>
<td>1/6</td>
</tr>
<tr>
<td></td>
<td>Child School Attendance</td>
<td>No child is attending school up to the age at which they should finish class 6.</td>
<td>1/6</td>
</tr>
<tr>
<td>Health</td>
<td>Child Mortality</td>
<td>2 or more children have died in the household.</td>
<td>1/6</td>
</tr>
<tr>
<td></td>
<td>Nutrition</td>
<td>Severe undernourishment of any adult (BMI &lt; 17 kg/m(^2)) or any child &lt; 3 standard deviations from the median.</td>
<td>1/6</td>
</tr>
<tr>
<td></td>
<td>Electricity</td>
<td>The household has no electricity (no change).</td>
<td>1/18</td>
</tr>
<tr>
<td></td>
<td>Improved Sanitation</td>
<td>There is no facility (open defecation).</td>
<td>1/18</td>
</tr>
<tr>
<td>Living Standard</td>
<td>Safe Drinking Water</td>
<td>The household does not have access to safe drinking water, or safe water is more than a 45-minute walk (round trip).</td>
<td>1/18</td>
</tr>
<tr>
<td></td>
<td>Flooring</td>
<td>The household has a dirt, sand, or dung floor (no change).</td>
<td>1/18</td>
</tr>
<tr>
<td></td>
<td>Cooking Fuel</td>
<td>The household cooks with dung or wood (coal/lignite/charcoal are now non-deprived).</td>
<td>1/18</td>
</tr>
<tr>
<td></td>
<td>Assets</td>
<td>The household has no assets (radio, mobile phone etc.) and no car.</td>
<td>1/18</td>
</tr>
</tbody>
</table>

---

\(^6\) Alkire, Chatterjee, Conconi, Seth and Vaz

www.ophi.org.uk
POVERTY LEVELS IN RURAL AND URBAN AREAS

As the analyses of destitution and dynamics elsewhere in this brief show, there are marked discrepancies between poverty levels in **urban and rural areas**. The population split in 105 countries that allow for urban/rural comparisons shows that in the most recent period analysed, 1/3 of people in these countries live in urban areas, and 2/3 live in rural areas.

We find that across these countries, 85% of the MPI poor live in rural areas, and 15% in urban ones. The population-weighted ‘average’ urban MPI is 0.059, and the ‘average’ rural MPI is 0.284. Strikingly, the highest proportion of MPI poor people in an urban area is 69.5% (Niger), while in a rural setting it is 96.9% (Somalia). The greatest intensity (A) in an urban area is 55% (Mali), while in a rural setting it is 69.5% (Niger).

As Table 3 shows, this share varies across geographical regions – from 28.6 percent in high-income countries to 86% in Sub-Saharan Africa and South Asia. Most of the MPI poor – both urban and rural – live in South Asia. The rural-urban difference in the headcount ratio (proportion of poor) is particularly stark in South Asia and Sub-Saharan Africa – 39.3 and 46.3 percentage points, respectively. The intensities of poverty are consistently higher in rural areas for all regions and much higher in Sub-Saharan Africa and Middle East and North Africa, where they differ by nearly ten percentage points.

CHANGES IN RURAL AND URBAN POVERTY OVER TIME

We compare changes over time in rural and urban areas for 34 countries, with a combined population of over 2.5 billion people. For three countries, Bangladesh, Ethiopia and Peru, we have changes over two periods.

In terms of changes over time, both rural and urban regions reduced MPI strongly although rural areas as a whole reduced MPI significantly faster than urban areas – as might be expected given the higher rates of poverty in rural areas. For example, rural areas reduced the headcount ratio by 1.3 percentage points per year instead of 1 percentage point per year for urban areas. The annualized average rural MPI reduction was 0.009, whereas the urban MPI reduction was 0.005.

Rural and urban areas both reduced sanitation deprivations most, and tended to have stronger reductions in living standard indicators. However, rural areas had faster rates of reduction in most indicators.

### Table 3: MPI Poverty by Region

<table>
<thead>
<tr>
<th>Region</th>
<th>Number of Countries</th>
<th>Total Population (thousands)</th>
<th>Number of MPI Poor (thousands)</th>
<th>Number of Rural Poor (thousands)</th>
<th>Number of Urban Poor (thousands)</th>
<th>MPI Poor living in rural areas 'Rural Share' (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Countries</td>
<td>105</td>
<td>4,001,345</td>
<td>1,433,456</td>
<td>1,214,322</td>
<td>219,134</td>
<td>84.7%</td>
</tr>
<tr>
<td>East Asia &amp; Pacific</td>
<td>9</td>
<td>514,360</td>
<td>64,663</td>
<td>46,863</td>
<td>17,800</td>
<td>72.5%</td>
</tr>
<tr>
<td>Europe &amp; Central Asia</td>
<td>17</td>
<td>233,731</td>
<td>8,820</td>
<td>5,543</td>
<td>3,277</td>
<td>62.8%</td>
</tr>
<tr>
<td>Latin America &amp; Caribbean</td>
<td>15</td>
<td>469,739</td>
<td>28,697</td>
<td>19,953</td>
<td>8,744</td>
<td>69.5%</td>
</tr>
<tr>
<td>Middle East &amp; North Africa</td>
<td>9</td>
<td>206,909</td>
<td>25,345</td>
<td>19,074</td>
<td>6,271</td>
<td>75.3%</td>
</tr>
<tr>
<td>South Asia</td>
<td>8</td>
<td>1,606,945</td>
<td>833,946</td>
<td>719,496</td>
<td>114,450</td>
<td>86.3%</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>38</td>
<td>789,187</td>
<td>469,342</td>
<td>402,637</td>
<td>66,705</td>
<td>85.8%</td>
</tr>
<tr>
<td>High Income Countries</td>
<td>9</td>
<td>180,474</td>
<td>2,643</td>
<td>756</td>
<td>1,887</td>
<td>28.6%</td>
</tr>
</tbody>
</table>

Source: This and other tables use the MPI estimations for 105 countries (Alkire, Conconi and Seth 2014) using data from 2002-2013, with 60 countries’ data being from 2008-13. Argentina and Slovenia are excluded as their surveys do not cover rural areas. China is also excluded since data are from 2002. Estimates are aggregated using 2010 UN Population Statistics from UNDESA (2013).

### Table 4: MPI in Rural and Urban Regions

<table>
<thead>
<tr>
<th>Region</th>
<th>Urban Areas</th>
<th>Rural Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MPI</td>
<td>Incidence (H)</td>
</tr>
<tr>
<td>All Countries</td>
<td>0.059</td>
<td>13%</td>
</tr>
<tr>
<td>East Asia &amp; Pacific</td>
<td>0.032</td>
<td>8.1%</td>
</tr>
<tr>
<td>Europe &amp; Central Asia</td>
<td>0.009</td>
<td>2.5%</td>
</tr>
<tr>
<td>Latin America &amp; Caribbean</td>
<td>0.010</td>
<td>2.5%</td>
</tr>
<tr>
<td>Middle East &amp; North Africa</td>
<td>0.023</td>
<td>5.8%</td>
</tr>
<tr>
<td>South Asia</td>
<td>0.113</td>
<td>24.2%</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>0.131</td>
<td>27.4%</td>
</tr>
<tr>
<td>High Income Countries</td>
<td>0.005</td>
<td>1.2%</td>
</tr>
</tbody>
</table>

INEQUALITY AMONG THE MPI POOR: LEVELS AND TRENDS

Poverty reduction is not necessarily uniform across all poor people in a country, or across population sub-groups; an improvement overall may yet leave the poorest of the poor behind. In 2014 we used a separate, decomposable measure of inequality – a positive multiple of variance – to analyse inequality among the MPI poor (Alkire and Seth 2014).

The measure gives a value between zero and one; if all poor people have the same deprivation score, there is no inequality and the value is zero. But if half of MPI poor people are deprived in all of the MPI indicators, and half of them are deprived in only one third – the minimum at which they are identified as MPI poor – the inequality measure would show the maximum value of one.

In 2014, we measured inequality among the poor in 90 countries, and found the highest levels are to be found in 15 Sub-Saharan African countries; in Pakistan, India and Afghanistan; and in Yemen and Somalia. The lowest rate of inequality we found was in Belarus at 0.006, and the greatest inequality was in Burkina Faso, with a value of 0.3. In general, countries with higher rates of MPI poverty also show greater inequality among the poor, but there are several instances where this is not the case.

An analysis of how inequality among the MPI poor has changed in 51 countries reveals a generally positive story: nearly all countries that reduced MPI poverty also reduced inequality among the poor.

REGIONAL DISPARITIES

We used another new measure to analyse changes in subnational disparity in MPIs – in other words, disparity between subnational MPI values – in 31 countries. We found that national reductions in MPI poverty are not shared uniformly across all sub-national regions within these countries; less than half of the 31 countries analysed significantly reduced sub-national disparity. In those that did not, horizontal inequalities were replicated – or worse, the poorest groups were being left behind.

The inequality measure can provide insights into these disparities and help us to understand whether the differences are due to geographical causes or something else, such as rural-urban differences or cultural factors.

The table below, for example, shows results for Togo and Bangladesh. The two countries show fairly similar values for MPI, H (the incidence of poverty) and A (the intensity of poverty). Inequality among the poor is also very similar. However, though both countries have roughly the same number of sub-national regions, the level of sub-national disparity is much higher in Togo than in Bangladesh.

NOTES

2. For more details, see ‘Multidimensional Poverty Index 2014: Brief Methodological Note and Results’, Alkire, Conconi and Seth (2014).
3. All statistical significance is evaluated at p ≤ 0.05. 29 of the 30 countries’ changes were significant at p ≤ 0.01. Ethiopia, Peru and Bangladesh had comparisons for two periods. Guyana had statistically significant reductions but only at p = 0.10, as did Peru 2005-2008. Madagascar had a statistically significant increase in MPI at p = 0.01.
4. Indonesia reduced all nine indicators for which it has information.
5. These 71 datasets have been harmonized for strict comparability, so the numbers may not match the published destination figures exactly.
6. We use a significance level of 0.05. Senegal’s reduction in the destitution MPI was statistically significant only at 0.1 level. Bangladesh, Ethiopia and Peru reduced destitution significantly in both periods.
7. The relative rate of change is the difference in levels across two periods as a percentage of the initial period. The annualized relative rate of change is the compound rate of reduction per year between the initial and the final periods.
8. According to the DAC figures for 2012 and 2013 aid flows.
10. Figures do not change significantly when including China. Results with and without China and India are available at OPHI’s website.

REFERENCES


<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>MPI</th>
<th>A</th>
<th>H</th>
<th>Inequality Among The Poor V¹</th>
<th>Disparity Between MPIs V²</th>
<th>Number of Regions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Togo</td>
<td>2010</td>
<td>0.250</td>
<td>50.3%</td>
<td>49.8%</td>
<td>0.194</td>
<td>0.042</td>
<td>6</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>2011</td>
<td>0.253</td>
<td>49.5%</td>
<td>51.2%</td>
<td>0.192</td>
<td>0.004</td>
<td>7</td>
</tr>
</tbody>
</table>

Source: Seth and Alkire (2014)
In order to have strict comparability between the MPI headcount rates and the $1.25/day headcount rates, this graph reports the $1.25/day rates that are the very closest to the MPI survey year. This graph does not present the $1.25/day headcount rates if the $1.25/day and MPI survey years are more than three years apart.