Multidimensional Poverty Index 2015+

Many SDG-related documents have drawn attention to the multidimensionality of poverty, and called for measures that illuminate the overlapping dimensions of poverty. This brief sketches what a Multidimensional Poverty Index (MPI) is and what a new version of it (MPI 2015+) could look like in the Sustainable Development Goals (SDGs). The final page reprints for readers' convenience key references to multidimensional poverty in prominent SDG documents.

WHY An MPI 2015+?
The MPI 2015+, supported by a data revolution, can help to eradicate extreme poverty by complementing income poverty measures and shining a high-resolution lens on poverty, showing who is poor and how they are poor. Such a measure will help to ensure that the SDGs “leave no one behind”.

A Multidimensional Poverty Index:
- Measures acute poverty in multiple dimensions.
- Builds from profiles of people’s linked deprivations.
- Provides a clear, informative poverty headline.
- Tracks change in poverty and its dimension.
- Enables policy coordination across sectors.
- Can be disaggregated by groups and indicators, to show success in leaving no one behind.
- May be mapped to environmental conditions.
- Compares non-monetary deprivations directly, independent of prices, inflation, or currency.
- Can be examined for robustness to weights and cutoffs.

Acute and Moderate MPIs: To achieve universal relevance, an MPI for acute poverty needs to be complemented by an MPI for moderate poverty, just as the $1.25/day measure is complemented by $2 and $4 versions. Regions like Latin America and the Caribbean have—and the Arab states are—developing moderate MPIs that can be used alongside the acute global MPI.

Global and National Applications: SDG-related MPIs could be Global and/or National. Ideally, as for monetary poverty, there would be both global and national MPIs. A Global MPI 2015+ could be used to track and compare a set of deprivations across countries. It can incentivise change and cross-fertilise good practices. It complements the global $1.25/day measure by capturing some acute deprivations that each person faces at the same time with respect to education, health and living standards.

National multidimensional poverty measures are tailored to the policy, cultural, and environmental context. They galvanise political will, and energise and inform national policy at all phases. They complement national monetary poverty measures. The Alkire Foster method that underlies the Global MPI has been used to create official national MPIs that reflect national priorities. For example:
- Mexico released an MPI in 2009 which has a legal basis, biannual updates, and shapes key multi-actor policies.
- Colombia’s MPI, updated every year, is used to coordinate policy and monitor the national plan.
- The Philippines’ official national MPI is a target related to inclusive growth, updated annually.
- Bhutan’s national MPI informs resource allocation across sectors and regions, and tracks changes over time.
- The Chilean MPI, released in 2015, covers a wide range of deprivations, including health, safety and employment.

The nexus between policy, measurement and management in these countries provides powerful examples of how national MPIs can become policy tools, and help create clear systems of accountability.

What is the Global MPI?
- The Global Multidimensional Poverty Index is an index of acute multidimensional poverty.
- Since 2010, OPHI have computed and the UNDP Human Development Reports have published this MPI using the most recent publicly available data.
- The 2014 Global MPI covers 110 countries and 5.4 billion people, disaggregated by 803 subnational regions. On average 30% of people are MPI poor. Changes over time are reported for 2.5 billion people.

OWG Goal 1. End poverty in all its forms
1.1 by 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than $1.25 a day.
1.2 by 2030, 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.

Outcome Document, OWG (2014)
MPI Methodology: Rigorous yet Flexible

The building blocks of the MPI are direct measures of the overlapping deprivations poor people experience simultaneously. Endah (pictured below) is poor because she is deprived in more than one-third of the weighted indicators together – in fact she’s deprived in 73% (illustrated by the shaded boxes of the figure below).

The MPI is calculated by multiplying the incidence of poverty (H) - the percentage of people who are poor - by the intensity of poverty (A) - the average percentage of simultaneous deprivations poor people experience. 

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

**OTHER MULTIDIMENSIONAL MEASURES**

A particularly policy-relevant methodology, the AF method, has been used with appropriate modifications in multiple measurement exercises. Some examples relevant to the SDGs are as follows:

**Child Poverty Measures** are naturally multidimensional. Child poverty analyses of the global MPI are available, and child AF measures been designed in academic work (e.g. in Bangladesh). Individual-level child poverty AF measures can be disaggregated by age and gender, and can illuminate intra-household patterns. Elements of the Alkire-Foster methodology have also been adopted in UNICEF’s multiple overlapping deprivation analysis (MODA) (de Neubourg et al. 2012).

The **Women's Empowerment in Agriculture** Index (WEAI) was designed to measure the empowerment, agency, and inclusion of women in the agriculture sector. Created by OPHI and the International Food Policy Research Institute (IFPRI) for the United States Agency for International Development, the WEAI tracks women’s empowerment in five areas: production, resources, income, leadership, and time use; and measures gender parity.

The **Gross National Happiness** (GNH) Index of the Royal Government of Bhutan, has been constructed by the Centre for Bhutan Studies since 2008. The GNH Index gives visible importance to non-economic aspects of wellbeing. Unlike subjective happiness indicators, the GNH Index is a holistic reflection of the general wellbeing of the Bhutanese population, and can be decomposed by variables like region, gender, or occupation; and broken down by domain and indicator.

**REFERENCES**


High Visibility
How disaggregated metrics help to reduce multidimensional poverty
Excerpt from Sabina Alkire and Gisela Robles Aguilar, January 2015

In the digital age, it is becoming ever-easier to take crystal clear photos to share with family and friends. New technologies enable us to zoom in and capture vivid details, so photos are no longer low-resolution and blurred. And just as we demand clarity from pictures, so we need high resolution poverty metrics.

The Global Multidimensional Poverty Index (MPI) can be and has been disaggregated by sub-national regions, by rural and urban areas, and by groups such as children, ethnic groups, and caste (all posted on ophi.org.uk). Disaggregated data provide a more detailed picture of the interlinked conditions of the poorest, so that policies can be most effectively designed and targeted.

The Global MPI is an international measure of poverty that combines simultaneous disadvantages experienced by the poor across different areas of their lives, covering education, health and living standards (Alkire & Santos 2014; UNDP 2014; Alkire Conconi Robles and Seth 2015). If a person is deprived in one-third or more of ten weighted indicators, they are identified as multidimensionally poor (Figure 1). The MPI has been estimated by OPHI and published in UNDP’s Human Development Reports since 2010.

Coverage & Statistics: The Global MPI covers 110 developing countries. Across 71 of these countries, the MPI has been decomposed into 803 sub-national regions. This information, including maps and sub-national MPI values, is available in OPHI’s interactive databank. For each country and region, we post the MPI value plus consistent indicators that are intuitive, like the percentage of people who are MPI poor—or information-rich, like the percentage of people who are poor and, specifically, are deprived in electricity. Rural-urban decompositions are also available online.

The five poorest sub-national regions in different geographical areas
Sub-Saharan Africa: Salamat, Hadjer Lamis and Lac in Chad; and Est and Sahel in Burkina Faso.
Central and Eastern Europe and Central Asia: Eastern Turkey; and four areas in Tajikistan: Khatlon, Gorno-Badakhshan, Sughd, and Districts of Republican Subordination.
Arab States: ‘the Capital and all other districts’ of Djibouti; and Missan, Al-Qadisiva and Al-Muthanna in Iraq.
Latin America and Caribbean: Central, Grande-Anse, North-East, Artibonite and North-West - all in Haiti.
East Asia and the Pacific: Oecussi, Ermera, Ainaro and Viqueque in Timor-Leste; and Mondol Kiri/Rattanak Kiri in Cambodia.
South Asia: Bihar and Jharkhand in India; South and West Afghanistan; and Balochistan in Pakistan.

Disaggregated data in low-income countries: It might seem unlikely to be feasible to collect good quality, disaggregated data in poor countries. But consider the 30 low income countries that have MPI estimations, and have a 2010 gross national income (GNI) per capita of less than $1000. In fully 29 of those 30 countries, the MPI can be and has been disaggregated sub-nationally. Furthermore, 10 of these countries have data that were collected in 2012-14, and 26 of these countries have data that are from 2010-14. This illustrates what is possible—universally.

Policy View: The policy demand for high resolution and integrated poverty optics that permit multiple actors to make a visible and well-informed dent in poverty is apparent. While it can be difficult to disaggregate global income poverty measures, zooming in on multidimensional poverty at a sub-national level is vital to shine a light on the different levels and characteristics of poverty within countries, and help to design high-impact policy responses.

Multidimensional Poverty Peer Network (MPPN): Over 30 governments have formed the MPPN to support those in the process of exploring or developing national MPIs, as well as to undertake a focused exploration of an MPI 2015.
Multidimensional Poverty in SDG Documents

The importance of the concept of multidimensional poverty and its measurement has been expressed in official UN documents related to the development of the SDGs. We reprint for convenience key passages here.

Open Working Group on Sustainable Development Goals. In 2014, the collaborative OWG reasserted the need to end poverty in all its forms everywhere as the top Sustainable Development Goal. The open working group uses a multidimensional concept of poverty.

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Sixty-Ninth Session of the UN General Assembly. A resolution of the UNGA (A/RES/69/238) on 19 December 2014 reasserted the need for a global MPI as a necessary conceptual framework for the global community of policy-makers that measure and tackle extreme poverty.

5. [UNGA] Underlines the need to better reflect the multidimensional nature of development and poverty, as well as the importance of developing a common understanding among Member States and other stakeholders of that multidimensionality and reflecting it in the context of the post-2015 development agenda, and in this regard invites Member States, supported by the international community, to consider developing complementary measurements, including methodologies and indicators for measuring human development, that better reflect that multidimensionality.

Sustainable Development Solutions Network (SDSN). In a report issued on 18 February 2015, the SDSN presents the MPI as Indicator 3 of Goal 1 (“End poverty in all its forms everywhere”).

Indicator 3: Multidimensional Poverty Index

To ensure our conceptualization of multidimensional poverty is firmly rooted in the Open Working Group Outcome Document and proposed SDGs, we support the creation of a revised MPI. At a minimum this “MPI2015” would track extreme deprivation in nutrition, health, education, water, sanitation, clean cooking fuel and reliable electricity, to show continuity with MDG priorities… We therefore propose using the Alkire and Foster method of calculation, and setting a threshold of multiple deprivations, to determine who is or is not considered poor.

Synthesis report of the Secretary-General on the post-2015 sustainable development agenda. Issued 4 December 2014, the report discusses multidimensional poverty several times, including in the following sections:

2.1 Shared ambitions for a shared future

50. All contributions emphasized that we should continue the march to achieve the Millennium Development Goals, but they also stressed that Member States will need to fill key sustainable development gaps left by the Goals, such as the multidimensional aspects of poverty, decent work for young people, social protection and labour rights for all. They have asked for inclusive and sustainable cities, infrastructure and industrialization. They have called for strengthening effective, accountable, participatory and inclusive governance; for free expression, information, and association; for fair justice systems; and for peaceful societies and personal security for all.

4.1 Financing our future

100. Levels of concessionality should take into account different development stages, circumstances and multiple dimensions of poverty and the particular type of investment made.

5.1 Measuring the new dynamics

135. Member States have recognized the importance of building on existing initiatives to develop measurements of progress on sustainable development that go beyond gross domestic product. Thus, work on developing alternative measures or progress, beyond GDP, must receive the dedicated attention of the United Nations, international financial institutions, the scientific community and public institutions. These metrics must be squarely focused on measuring social progress, human wellbeing, justice, security, equality, and sustainability. Poverty measures should reflect the multi-dimensional nature of poverty. New measures of subjective well-being are potentially important new tools for policymaking.