Multidimensional Poverty Measurement: Informing Policy Around the World

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How we measure poverty can importantly influence how we come to understand it, how we analyse it, and how we create policies to influence it. For this reason, measurement methodologies can be of tremendous practical relevance.

Most countries of the world define poverty in a unidimensional way, using income or consumption levels.

But poor people go beyond income in defining their experience of poverty. They often include a lack of education, health, housing, empowerment, humiliation, employment, personal security and more. No one indicator, such as income or consumption, is uniquely able to capture the multiple aspects that contribute to poverty. Furthermore, levels and trends of income poverty are not highly correlated with trends in other basic variables such as child mortality, primary school completion rates, or undernourishment (Bourguignon et al 2010: 24, 27). A person or household can be income poor but multidimensionally non-poor, or income rich but in multidimensional poverty.

In recent years, the literature on multidimensional poverty measurement has blossomed in a number of different directions. The 1997 Human Development Report and the 2000/1 World Development Report vividly introduced poverty as a multidimensional phenomenon, and the Millennium Declaration and Millennium Development Goals (MDGs) have highlighted multiple dimensions of poverty since 2000. New academic measurement methodologies are being created.

At the same time, the number of countries conducting multi-topic household surveys that provide the required inputs for the construction of multidimensional measures have increased dramatically from the mid-1980s, to around 130 developing countries at present. This phenomenon, together with advances in techniques and the increasing demand to understand poverty and social policies, generate a unique framework for the implementation of these kinds of measures.

**Counting approaches to multidimensional poverty measurement: the AF method**

Multidimensional poverty measures that are based on people’s own deprivation profiles can, at a glance, provide an integrated view of poverty. The most widely used multidimensional poverty measures since the 1970s have been what are called ‘counting approaches’.1

Most applications of counting measures tend to report a headcount ratio. While this is very easy to understand and communicate, it does not provide an incentive to reduce the deprivations of the poorest of the poor. Nor can it be broken down by dimension to show how people are poor.

In 2007, OPHI Director Sabina Alkire and Professor James Foster created a new method for measuring multidimensional poverty (referred to as AF for Alkire Foster). It uses a counting approach to identifying ‘who is poor’ by considering the range of deprivations they suffer, and combines this with the Foster-Greer-Thorbecke (FGT) methodology that is the most widely used class of income poverty measures. The resulting measure aggregates information to reflect societal poverty in a way that is robust, can be broken down by regions and groups and, importantly to show who is poor and where they live, can be broken down by dimension and indicator to show how people are poor.

**It is intuitive and easy to calculate**

To identify the poor, the AF method counts the overlapping or simultaneous deprivations that a person or household experiences in different indicators. The indicators may be equally weighted or may take different weights. People are identified as multidimensionally poor if the weighted sum of their deprivations is greater than or equal to a poverty cutoff – such as 20%, 30%, or 50% of all possible (weighted) deprivations.

Having identified who is poor, the AF method then summarises information to show the deprivations experienced by the poor as a proportion of all possible deprivations in society. The simplest measure in the class – which is the most widely applied – can be computed by simple multiplication. It is the product of $H \times A$: the headcount ratio or percentage of people who are identified as poor (H) multiplied by the average share of weighted deprivations that poor people experience (A), which is termed the intensity of poverty. This product is called the adjusted headcount or $M_0$ in the AF method; in the construction of a Multidimensional Poverty Index it is termed the MPI value. This measure has been found to be rigorous, easy to ‘unpack’ and to use for policy, and flexible, which makes it adaptable to different contexts.

1. These are widely applied because most poverty data use categorical or ordinal variables, and counting measures can be created that use these data in a rigorous and appropriate manner. See Alkire, Sabina & Foster, James (2011).
It is unique

One unique aspect of the AF method is that it reveals the intensity of poverty. Thus it can distinguish between, for example, a group of poor people who suffer only two deprivations on average, and a group of poor people who suffer four deprivations on average at the same time.

This approach can be employed flexibly in a variety of situations by using different dimensions (e.g. education), indicators (e.g. how many years of education a person has), deprivation cutoffs (e.g. a person with fewer than five years of education is considered deprived), weights (e.g. education and health dimensions are equally weighted), and poverty cutoffs (e.g. a person who is deprived in one-third or more of the weighted indicators is poor).

It reveals differences within and between groups and regions

The measure can be decomposed by geographic area, ethnicity, gender or other social groups, to show the composition of poverty within and between them.

The measure can be broken down after identification to show which deprivations (i.e. which dimensions and indicators) are driving poverty within groups.

It gives information across time

The measure can be used to monitor changes in poverty and the composition of poverty over time using time series or panel data. The AF method reflects deprivations directly and changes immediately as these change. This time sensitivity makes it an effective monitoring tool because improvements in the dimensions measured, such as health and education, are reflected more quickly than with traditional approaches.

Common uses

Poverty measures: The AF method can be used to create national, regional or international measures of poverty, using dimensions and indicators that are tailored to the specific context.

Geographic: The AF method can be used to identify which regions are the poorest, for example for geographic targeting, or to inform allocation decisions.

Monitoring and Evaluation: The AF method can be used to monitor the effectiveness of programmes over time.

Targeting the poorest groups and beneficiaries: A person’s ‘deprivation score’ can be used to target the poorest beneficiaries and can be broken down to show the indicators in which they are most deprived, to further inform interventions.

Complement other metrics: The AF poverty method can be used to complement other measures, such as income poverty, GDP, and inequality measures.

These are widely applied because most poverty data use categorical or ordinal variables, and counting measures can be created that use these data in a rigorous and appropriate manner. See Alkire, Sabina & Foster, James (2011).

Using the Alkire Foster method

An AF $M_0$ measure can be intuitively constructed in 12 steps. The first 6 steps are common to many multidimensional poverty measures; the remainder are specific to the AF counting method.

Step 1
Choose the purpose of the measure, and identify the institutional framework

Step 2
Choose a unit of analysis (e.g. a person, household, or community)

Step 3
Choose dimensions (e.g. education, health, living standards)

Step 4
Choose indicators for each dimension (e.g. years of schooling, body mass index)

Step 5
Set deprivation cutoffs for each indicator

Step 6
Set and apply weights for each indicator

Step 7
Sum the share of weighted deprivations for each person (or other unit of analysis)

Step 8
Set and apply the poverty cutoff (i.e. the percentage of weighted indicators a person must be deprived in to be considered poor)

Step 9
Calculate the percentage of people identified as poor (the headcount ratio) (i.e. divide the number of poor people by the total number of people)

Step 10
Calculate the intensity of poverty (i.e. add up all poor people’s share of weighted deprivations and divide by the number of poor people)

Step 11
Calculate the adjusted headcount ratio ($M_0$ or the MPI = $H \times A$)

Step 12
Calculate the consistent indices: censored headcount ratios for each indicator, percentage contributions of each indicator to overall poverty, standard errors, etc.
In 2011, Colombian President Juan Manuel Santos announced a new National Development Plan, with poverty reduction as the centerpiece. Devised by Ministry of Planning, the Colombian Multidimensional Poverty Index (MPI-Colombia) was the first National Development Plan to use the AF method for measuring multidimensional poverty. The government’s strategy, which includes binding targets and outputs based on budget priorities, is on track to reduce multidimensional poverty by 13 percentage points by the end of 2014 – from 35% of the entire population in 2008 to 22% in 2014.

MPI Colombia—Informing Policy Programmes

Families in Action Plus

A human development conditional cash transfer programme for poverty reduction, Families in Action Plus operates in 1,102 municipalities, targeting 3 million Colombian families (approximately 13 million people). Under the scheme, selected families receive incremental direct cash transfers when the education outcomes of the members of the household improve. Since 2012, the MPI-Colombia has been used to geographically target the programme, tailoring coverage, intervention, and total monetary value to the particular needs of each region.

Families in Action Plus has had three concrete results:

1. An increase in the number of beneficiaries in poorer municipalities (according to the headcount ratio of the municipality’s MPI);

2. An increase in the value of funds transferred to rural and more deprived areas; and

3. A greater reduction of household liquidity constraints according to geographic location.

UNIDOS

The national strategy (safety net) UNIDOS, currently targeting 1,500,000 families (about 7,050,000 people), is the main policy initiative to reduce extreme poverty in Colombia. The strategy aims to enhance the income-generating abilities and the quality of life conditions of the families involved. It efficiently targets the specific needs of families, offering initiatives in the following areas: 1) income and work; 2) education and capacity; 3) health; 4) nutrition; 5) housing conditions; 6) family relationships; 7) banking and savings; and 8) access to justice.

Beneficiary families are identified using the System for the Selection of Beneficiaries of Social Programs (SISBEN) and then characterised through a census-type exercise involving a short questionnaire that collects detailed information on multidimensional and income poverty. Beneficiaries are categorised according to the type of poverty prevailing in the household (income or multidimensional) and a set of social programmes based on each household’s needs is then selected for the families.

Delegates of the UNIDOS strategy in each public agency are responsible for enrolling the families in particular interventions and monitoring their progress through regular sessions to evaluate the achievements of households. Community meetings are used as a mechanism for local management.

The enrolment of selected families is temporary until they “graduate” from extreme poverty. Only families classified as non-multidimensionally poor and non-income poor are promoted out of the programme.

Social Map

The Social Map is a new, very useful tool of the Social Prosperity Department that provides guidance to government and private actors working on social projects. The Map is based on a board of social indicators (poverty measures, quality of life indicators and administrative data) and includes the MPI-Colombia dimensions and indicators at the municipal level (1,102 municipalities). The Social Map aims to improve the efficiency and effectiveness of private social investment and encourages synergies between public and private agents around the main goals of multidimensional poverty reduction.
Institutions

The MPI-Colombia has been used both to set specific targets and to track progress towards them in the National Development Plan. The Development Plan has specific targets for multidimensional poverty reduction alongside income poverty and inequality. It also has specific targets for each of the dimensions and indicators considered in the Index.

To ensure that the targets are on track, President Santos has established and heads a special ministerial cabinet commission. The commission is composed of every minister or head of department responsible for indicators found in the Development Plan. Meetings are held at least once a year, with each member reporting on the advances of his or her sector. The technical secretariat of the commission monitors advances in the plan, producing reports based on a “traffic light” system. The reports triggers alerts when progress towards each indicator falls off track.

The characteristics of the AF-based MPI-Colombia (e.g., it can be broken down to observe the contribution of each of the dimensions to overall poverty levels and it allows analysis of specific groups or regions) result in a clear map for coordinating the design and implementation of policies to achieve an integrated strategy for the reduction of poverty.

An additional element of this monitoring system is the transparency and accountability that it generates vis-à-vis the general public as well as within government. As part of the institutionalisation of the MPI-Colombia, the government has now transferred the responsibility for the calculation of the index to the National Statistics Department (an independent institution) and established an independent board of national and international experts to oversee the data. Surveys are now fielded - and the MPI released - on an annual basis in order to support the follow up of the Development Plan. The information depicting the advances in the plan is made public annually, allowing for the results to be widely scrutinised and the lagging sectors identified.

**MPI-Colombia: A nested weighting structure**

- **Education**
  - Educational achievement
  - Literacy
  - Access to childcare services
  - Absence of child employment

- **Childhood & youth conditions**
  - School attendance
  - No school lag

- **Labour**
  - Absence of long-term unemployment
  - Formal employment

- **Health**
  - Health insurance
  - Access to health care services when needed

- **Public utilities & housing conditions**
  - Access to improved drinking water
  - Adequate elimination of sewer waste
  - Adequate flooring
  - Adequate walls
  - No critical overcrowding

Source: Archivo Oficina de Comunicaciones. Departamento para la Prosperidad Social - DPS
MPI-Colombia at the municipal level

A proxy of the national MPI-Colombia was constructed at the municipal level using census data from 2005. This MPI at the municipal level enables the creation and update of poverty maps according to the multidimensional approach and assessment tool. These maps have been used for the geographical targeting and differentiation of social programme interventions.

The MPI-Colombia at the municipal level shows that there is a high level of rural poverty relative to urban poverty, and poverty is lower in the central regions. Furthermore, urban-rural and centre-periphery gaps have intensified over recent years.

MPI-Colombia Method

Unit of analysis

The MPI-Colombia uses the household as unit of analysis. Household members are considered to be deprived or not according to the achievements of all household members simultaneously (e.g. a person is considered deprived if any of his or her fellow household members are deprived in literacy). This respects the family as the fundamental social unit in Colombia.

Three criteria based on the Colombian context were used to select this unit of analysis:

First, a normative criterion draws on the Colombian Constitution, which claims that the guarantee of living conditions and rights is the joint responsibility of the family, society and the State.

Second, an empirical criterion draws on academic evidence relating to Colombia which shows that households historically respond to adverse situations collectively.

The final criterion relates to the social policy context of the country. This criterion draws on existing policies, programmes and instruments in the country, all of which use the household as the unit of analysis and intervention.

Dimensions and indicators

Building on the flexibility inherent in the AF method, the MPI-Colombia assesses broader aspects of poverty in five dimensions using 15 indicators.

Weights and poverty cutoff

The MPI-Colombia uses a nested weighting structure where each dimension has the same weight (20%), and each indicator has the same weight within each dimension (see figure on page 5).

Based on a consultation process in which alternative weighting structures were considered, this set of weights was selected to reflect the equal importance of each dimension as a constituent element of quality of life.

The poverty cutoff—the share of dimensions in which a person must be deprived in order to be considered multidimensionally poor—was set at one third of the weighted dimensions.

Colombia’s ‘traffic light’ monitoring system shows progress towards indicators

<table>
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<tr>
<th>Poverty</th>
<th>Base Line</th>
<th>2011</th>
<th>Alert</th>
<th>Goal 2011</th>
<th>Goal 2014</th>
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<tr>
<td>Income poverty (% LP)</td>
<td>40.2%</td>
<td>34.1%</td>
<td></td>
<td>35.9%</td>
<td>32%</td>
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<tr>
<td>Extreme income poverty (%LI)</td>
<td>14.4%</td>
<td>10.6%</td>
<td></td>
<td>11.6%</td>
<td>9.5%</td>
</tr>
<tr>
<td>IPM (Multidimensional poverty) base line 2008</td>
<td>34.6%</td>
<td>29.4%</td>
<td></td>
<td>25.7%</td>
<td>22.5%</td>
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<tr>
<td>Families graduated from extreme poverty (UNIDOS)</td>
<td>0</td>
<td>581</td>
<td></td>
<td>10,000</td>
<td>350,000</td>
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<tr>
<td>Gini (Income)</td>
<td>0.557</td>
<td>0.54</td>
<td></td>
<td>0.556</td>
<td>0.544</td>
</tr>
</tbody>
</table>

Source: Archivo Oficina de Comunicaciones. Departamento para la Prosperidad Social - DPS
In 2004, a consensus among Mexican political parties led to the approval of the General Law for Social Development (LGDS), which created an independent Council for the Evaluation of Social Policy (CONEVAL) in 2006. The LGDS mandated CONEVAL to design a multidimensional poverty measure based on the insights of the Mexican law and in the social rights established in the LGDS. A new multidimensional poverty measure was adopted by the Mexican government on 10 December 2009.

At the time it was the first national poverty measure to reflect the full breadth of poverty at the household level, including social rights such as health, housing, education, access to the social protection system, and access to food, as well as income at the national, state and municipal level. In turn, the Secretariat of Social Development (SEDESOL), which is the public agency responsible for social development efforts in Mexico, has made the measure central to its work on eradicating poverty in the country.

**MPI—Informing Policy**

The measure enables policymakers to target interventions to support the poor. Several aspects of Mexico’s measure are especially important:

1. The dimensions included in the measure were chosen by Congress and are based on social rights.
2. The poverty cutoffs are primarily derived from the Constitution and other major social regulations. These two elements align the poverty measure with the country’s legal framework.
3. The methodology highlights the link between poverty and social programmes and public policy strategies.
4. Estimations are done every two years at the national and state level, and every five years for the municipality level.

**Results for 2012**

In July 2013 CONEVAL reported the results of poverty measurement in 2012. The report found 53.3 million poor people in Mexico (45.5% of the total) compared to 52.8 million (46.1%) that had been poor in 2010. Between 2010-2012, the extremely poor population was reduced from 13.0 million people (11.3% of the total) to 11.5 million (9.8%).

The reduction in the poverty figures was attributed to decreases in deprivations in indicators on educational gap, improved access to health services, quality and spaces of the dwelling, access to basic household services and access to food. The reductions occurred both in terms of the head count ratio as well as average deprivations experienced by a poor person.

However in 2012 the percentage of people considered deprived in access to social security increased, as did the percentage of population with income below the minimum wellbeing line.
Uses of multidimensional measures

The Multidimensional Poverty Index has become a central tool for public policy makers in Mexico. The National Development Plan 2013-2018 has as one of its main objectives the creation of an ‘Inclusive Mexico’ through the effective access to social rights granted by the Constitution. The Plan contains major public policy objectives and sets out specific actions to meet them. It includes indicators and goals that are based on the different dimensions of welfare considered by the Multidimensional Poverty Index, in order to track progress and, when appropriate, make necessary adjustments to insure their compliance.

In order to fight poverty and ensure a minimum floor of social protection, President Enrique Peña Nieto created a new cabinet, ‘Inclusive Mexico’ (Mexico Incluyente), with the goal of having each Minister of State – according to her/his particular responsibilities— help to close the gap of access to the social rights indicated by Mexico’s Multidimensional Poverty Index. At these Cabinet meetings, Ministers present strategies and actions to reduce these indicators of multidimensional poverty, as aligned to the National Development Plan. The Inclusive Mexico Cabinet has regular meetings with the President to report progress and monitor results.

The Multidimensional Poverty Index has been fundamental tool in the creation of two large social protection strategies in Mexico: the National Crusade Against Hunger and the universal pension system. During the period 2008-2010 the lack of access to food was the only indicator of the poverty measure that showed the situation getting worse. Hence, the President proposed the National Crusade Against Hunger as the strategy to eradicate extreme multidimensional poverty and provide access to food of 7.01 million people. During the period 2010-2012 the percentage of people considered deprived in access to social security increased. This led to the creation of the Universal Pension System that will guarantee a minimum income for all Mexicans over 65 years. This system will be fully implemented in 2015.

Change in poverty 2008-2010
Dimensions and Indicators

Mexico’s multidimensional poverty measure incorporates three elements of the population’s living conditions: economic wellbeing, social rights and territorial context. The selected method adopts a social rights approach and develops indicators for the following dimensions: educational gap, access to healthcare, access to social security, basic services at home, quality of living spaces, access to food, the current income per capita and the degree of social cohesion, as is set forth by the LGDS.

To measure the income variable, CONEVAL used the National Household Income and Expenditure Survey (ENIGH). The indicators for social cohesion (reported separately) are economic inequality, social polarisation, social networks and income ratio. This measurement is conducted at national level and for urban and rural areas.

Thresholds

The thresholds for the indicators were determined through legal criteria and through consultation with experts from public institutions (health, housing, social security, education). A person is considered multidimensionally poor when his/her income is insufficient to acquire the goods and services he/she requires to satisfy his/her needs, and experiences deprivation in at least one of the six indicators listed above.

In the educational domain, a person aged 3-15 years is considered deprived if he/she is not attending a formal educational centre. For population above 16 years of age, deprivation is reflected by the lack of mandatory basic education current at the time they should have completed it.

A person is deprived in access to health if he/she is not enrolled in or not entitled to receive medical services from public or private services.

A person is considered deprived in the dimension of social security if he/she does not receive medical services through a public, voluntary or family network, and if the person has not access to the pension system directly or through a family network.

A person is considered deprived in access to basic services if he/she is not in a location where he/she has access to fresh or piped water, public drainage services or public electricity, and uses either firewood or charcoal without a chimney for cooking.

A person is considered deprived if the construction of walls, floors and roofs is from residue material or soil, and if the ratio of people per room is greater than 2.5.

People living in households with a level of moderate or severe food insecurity are considered deprived in the dimension of access to food.

Weights and poverty cutoff

Mexican legislation requires the measure to cover two essential areas: economic wellbeing and social rights. Thus income and social rights are equally weighted. Each social right is likewise equally weighted, giving an effective weight of 50% to all social rights and the other 50% to income.

A person is identified as multidimensionally poor if they are deprived in income according to the cost of a basic needs basket, and are also deprived in one or more social right. A person is in extreme poverty if they are deprived in income according to the food basket, and are deprived in three or more social rights.
**Bhutan**

The Royal Government of Bhutan views poverty as multidimensional, an outlook consistent with the development philosophy of the country’s Gross National Happiness (GNH) index.

Bhutan’s MPI model uses 13 indicators with varying weights, pertaining to primary schooling and children out of school (education dimension); child mortality, food insecurity used as a proxy for nutrition (health dimension); and road more than 30 minutes away, electricity, housing, cooking fuel, drinking water less than 30 minutes away, sanitation and asset ownership of livestock, land ownership of less than one acre and appliances (living standards dimension). Each of the three dimensions is given an equal weight of 1/3. The three indicators used in Bhutan’s MPI in addition to the global MPI are access to roads, land ownership and livestock ownership. Efforts to further refine the model and attune it to Bhutan’s GNH index are underway as relevant data become available.

The 2012 MPI Bhutan report found that 12.7% of the population was poor. Interestingly, only 3.2% of those identified as income poor (12% of the population) were also multidimensionally poor, showing a significant mismatch between the people captured by each measure. Similarly, among the 12.7% that are multidimensionally poor, 10% are not income poor. Even geographically, those Dzongkhags (districts) that are income poor are not necessarily multidimensionally poor. This highlights the importance of using both measures to inform decision making in the country.

The MPI value for the country is estimated to be at 0.051, indicating that poor people in Bhutan experience 1/20th of the deprivations that would be experienced if all people were deprived in all indicators. The urban poverty rate which is estimated at 1.3% is much lower than the rural poverty rate estimated at 17.8%.

The MPI report also shows that the biggest contribution to national poverty comes from deprivations in years of schooling (this indicator accounts for 30% of overall multidimensional poverty), followed by child mortality (14%) and school attendance (13%). When aggregated by dimensions, the largest contribution comes from education (43%), with living standard and health dimensions contributing 32% and 25% respectively.

Of Bhutan’s 20 “Dzongkhags”, or administrative and judicial districts, 18 showed statistically significant reductions in MPI and in the percentage of people who are MPI poor, while 16 showed significant reductions in the intensity of poverty.

Datasets from two periods 2007 and 2012 can be compared to assess the change in MPI in Bhutan. In the period from 2007 to 2012, the MPI was reduced by 12 percentage points. The largest reductions in MPI were observed in sanitation (19.9%), cooking fuel (18.3%), electricity (17.4%) and road access (15.2%).

**Philippines**

Strong macroeconomic fundamentals, a wider fiscal space, and a platform of good governance have all contributed to making the Philippines one of Asia’s top economic performers today. However, the muted response of income poverty to recent growth has challenged the Philippine government’s thrust in promoting inclusive growth.

Recognising that income alone provides a one-dimensional understanding of poverty, the Government of the Philippines has recently incorporated an official multidimensional poverty measure in its updated Philippine Development Plan (2011-2016). Based on the AF method, the new multidimensional poverty indicator is adapted to the national context and priorities of the country. The measure has been used to set a key poverty reduction target in an effort to secure inclusive growth and improvements in quality of life for the country’s nearly 97 million citizens.

The Plan serves as the Philippine government’s overarching guide and framework in formulating policies and implementing programs toward inclusive economic growth. In late 2013, the Plan was updated to reflect developments halfway through the Aquino administration’s term. For the first time, targets on the reduction of multidimensional poverty have been integrated, with the target of reducing multidimensional poverty from 28.2% in 2008 to 18% in 2016.

The baseline for the incidence of multidimensional poverty comes from the 2011 study of Economic Planning Secretary Arsenio M. Balisacan. Its recent update shows that continued progress has indeed been made in reducing multidimensional poverty and at a notably faster rate than the reduction in income poverty. Such progress has also been felt in nearly all of the Philippines’ 17 regions, demonstrating that multidimensional poverty has in fact responded favourably to economic growth.

Evidently, understanding multidimensional poverty is extremely relevant and useful in the Philippine setting. Its inclusion in the Philippine government’s overall strategy toward development and inclusive growth underscores its importance, and the MPI is envisioned to be eventually part of the official statistics regularly published by the Philippine statistical system.
In its 12th Five-Year Plan (FYP) for the period 2011-2015, the Communist Party of China (CPC) placed the issue of income inequality high on its policy agenda.

In November 2011, the CPC Central Committee convened the Poverty Reduction Working Meeting at its highest level and officially released the *Outline for Development-oriented Poverty Reduction for Rural China (2011-2020)*, with the objective of rapidly moving people out of poverty. The Outline prioritises 14 regions for national anti-poverty programmes over the next ten years, the first of which is Wu Ling Mountain Region in South and West China.

**Institutions**

Established in 2005, by CPC in partnership with the United Nations Development Programme, the International Poverty Reduction Center in China (IPRCC) over the past several years has undertaken a study of multidimensional poverty in the Wu Ling Mountain Region. The resulting comprehensive report detailed its findings and included policy recommendations. Based on this initial work, IPRCC and the National Bureau of Statistics, China (NBS), with the participation of OPHI, is planning to undertake a national multidimensional poverty measurement study between 2014 and 2015.

To more fully understand the characteristics of poverty in China, IPRCC has also developed an innovative Geographic Information System (GIS) for National Poverty Reduction, which identifies and monitors multidimensional poverty in each region. The system will be piloted in the Wu Ling Mountain Region by the end of 2014.

**South-South Experience Sharing**

In March 2014, IPRCC hosted a two-day workshop on multidimensional poverty, which brought together officials from China, Colombia, Minas Gerais (Brazil) and OPHI to share their experiences using the MPI in their own countries or regions. This provided a useful sharing of expertise and experiences by way of South-South knowledge exchange.

**Developing the MPI in Wu Ling Mountain Region**

The objective of the initial study was to use a multidimensional approach to measure the extent, the underlying character, and causes of poverty in the selected region.

**Coverage**

The Wu Ling Mountain Region, with a population of 36.45 million, is both the largest poverty-stricken area in China as well as home to the highest number of minorities in the country. This region comprises the four provinces of Hubei, Hunan, Chongqing and Guizhou, covering an area of 71,800 km².

**Methodology**

Using the AF method, IPRCC is working to determine the domains relevant to wellbeing, their respective indicators and threshold levels, and how best to aggregate it together. Uniquely, the study integrates household and village survey information with GIS data on the environment. The resulting measurement includes demographic, economic, social, ecological and environmental dimensions, and employs both standard poverty indicators (e.g. type of house, access to drinking water, electricity) as well as natural resource indicators (e.g. soil quality, environmental safety and ecology fragility).

**Nigeria**

In 2012, Nigeria’s National Bureau of Statistics (NBS), with the support of the United Nations Development Programme, for the first time computed a national MPI. The results demonstrated the importance of considering several scopes in determining poverty.

The recent rebasing of Nigeria’s national account estimates resulted in an increase nearly 89% higher than the previous base year (1990). This tremendous economic growth highlights the importance of a poverty measure that is not based on consumption or income alone. This is particularly evident in rural areas, where many households consume food produced at home. A broader understanding of the dimensions of poverty in Nigeria will provide a more full indication of standards of living.

Plans are underway to include multidimensional poverty indicators in the NBS’ regular data production exercise, building it into the biannual General Household Panel Survey to begin in August 2014. In addition, NBS staff will attend OPHI’s summer training programme on MPI in 2014.
Vietnam

Vietnam plans to have a national MPI developed by the end of 2014 to submit to the Prime Minister for approval and inclusion in the next five-year government plan. This will be the culmination of a partnership of the Vietnamese Government with the UNDP and OPHI.

In June 2013, Vice-Minister Nguyen Trong Dam announced that Vietnam’s Ministry of Labour, Invalids and Social Affairs (MoLISA), as the leading agency developing the national MPI, would join the global Multidimensional Poverty Peer Network as part of the country’s move to adopt a multidimensional framework for measuring poverty.

Over the next several months, Vietnamese missions from Ho Chi Minh City and the National government visited Mexico to learn of its experiences with their MPI. The Vietnamese also invited practitioners from Minas Gerais, Brazil and Colombia to Vietnam to share their experiences. OPHI later provided them with two short seminars on the MPI methodology.

A key part of Vietnam’s strategy was to test the MPI in Ho Chi Minh City. A pilot survey was undertaken and results informed the development of the national MPI. A technical committee was formed, led by MoLISA and the UNDP but with strong participation from other government ministries and the strong support of the National Assembly’s Social Affairs Committee. This MPI committee is tasked with drafting the framework of the national MPI and developing dimensions and indicators.

In September of 2013, the National Assembly’s Social Affairs Committee and the United Nations Development Programme hosted policymakers from Mexico and Brazil to discuss multidimensional approaches to setting poverty reduction targets and drafting social welfare policies. Participants discussed practical, sustainable initiatives for poverty reduction and evaluated the implementation of Vietnam’s current poverty reduction legislation and policies. At the seminar, the Prime Minister tasked MoLISA with creating a national poverty reduction and living standard improvement plan, to be submitted by the end of 2014.

El Salvador

In 2011, the Government of El Salvador, supported by the UNDP and funded by the Grand Duke of Luxembourg, prioritised the development of a national multidimensional poverty measure.

The government created an Advisory Board and a Technical Committee, both under the auspices of the Ministry of the Presidency, with representatives from government, academia, civil society and international organisations, to help build a poverty measurement methodology.

These bodies reviewed existing approaches to measuring multidimensional poverty and national statistical information available in household survey data. Focus groups were then conducted throughout the country to identify those living in poverty. Team members were supported by local, grassroots NGOs.

Eight dimensions significant for measurement emerged from this highly-participatory process: employment, housing, education, security, recreation, health, nutrition and income. In early 2014, the Technical Committee reported to the government its decision to adopt the AF method, dimensions and indicators. The current government is now reviewing these recommendations for implementation.

Malaysia

In 2011 the Government of Malaysia, through its the Economic Planning Unit (EPU), started considering the implementation of a multidimensional poverty index based on the AF method, which would provide relevant information for the efficient design, and monitoring of social policies.

The suggested purposes of the measure include: complementing the national income poverty measure; monitoring the effectiveness of poverty reduction programmes and strategies; and enabling better targeting and design of poverty reduction policies.

Malaysia developed a preliminary MPI based on the Household Income/Basic Amenities Survey (HIS/BA) 2009. The dimensions and indicators used in this initial work are the same as those included in the global MPI. Utilising the 2012 HIS/BA, the EPU has developed two versions of MPI:

1) without income (3 dimensions and 10 indicators);
2) with income (4 dimensions and 11 indicators).

The MPI figures will be revised according to the 2014 HIS/BA for utilisation in the 11th Malaysia Development Plan.
The government of President Michelle Bachelet, who came to power in 2014, is committed to a series of social reforms to achieve a reduction in poverty and inequality. In this context, it has become clear that there is a need for improving the way Chile has measured poverty since 1987. The new measures of poverty proposed include an update of the country’s absolute poverty measure as well as a new approach that takes into account vulnerability and multidimensional deprivations.

Earlier this year, an Expert Commission established by the previous government to review and improve the way poverty is measured put forward a range of recommendations, including the introduction of a multidimensional poverty measure. It also suggested changes in the current income poverty line in order to better capture the full reality of poverty in a higher-income context.

The proposed new multidimensional measure divides households into four groups: extremely poor, poor, vulnerable, and those who are neither poor nor vulnerable. Multidimensional measurement is based on the AF method and is used to define the extreme poverty and vulnerability categories. Alongside income, five additional dimensions (education, health, employment and social security, housing, and the community networks and environment) are suggested to assess the condition of Chile’s population.

The Bachelet administration has established an inter-institutional task-force involving the Ministry of Social Development and the National Statistics Institute, with the technical assistance of the Economic Commission for Latin America and the Caribbean (ECLAC) to review the Commission’s proposal, and also an independent panel of experts to assist the government in assessing the recommendations and suggestions on how to implement them. It is expected that the new official poverty line and the multidimensional measure will be launched by the end of 2014.

Minas Gerais, Brazil: Collecting data door to door

The State Government of Minas Gerais in Brazil has established a state-wide poverty reduction programme called Travessia, focused on multidimensional poverty. Utilising the AF measure, Travessia uses a Multidimensional Poverty Index (MPI) and has been implemented in 202 of 853 municipalities to date.

Results

Through early 2014, Travessia visited 474,976 households, spending approximately US$2 million in research. The results showed that 19.26% of the households are multidimensionally poor; 19.78% are vulnerable to poverty; and 1.26% could be classified as severely multidimensionally poor. By analysing the results in light of the contribution of each dimension to the index, the programme determined that education accounted for 65.24% of the MPI rank, followed by child mortality and sanitation, which together accounted for 12.27% of the MPI.

Household selection

Municipalities are selected for participation in Travessia based on their Human Development Index (HDI) score. Programme officers then visit the chosen municipalities to administer MPI questionnaires. The officers train local citizens to administer the questionnaires in every household of the chosen municipality. Travessia does not do a sample survey, but rather a full census of the municipality. This phase of the program is called Door to Door (Porta a Porta).

Based on the results of the questionnaire, each household is ranked by its MPI score and transferred to a municipal map. State-level Secretariats then use these data, along with complementary data from other sources, to target Travessia initiatives specific to their work. Each Secretariat uses complementary data from other sources on dimensions related to its work to enrich the municipal deprivation map. Each Secretariat is responsible for its outreach programme to the MPI chosen municipalities. At the present time Travessia uses the global MPI indicators, but the government is in the process of modification.

Chile

The State Government of Minas Gerais in Brazil has established a state-wide poverty reduction programme called Travessia, focused on multidimensional poverty. Utilising the AF measure, Travessia uses a Multidimensional Poverty Index (MPI) and has been implemented in 202 of 853 municipalities to date.

Minas Gerais: Secretariats responsible for MPI outreach programmes

<table>
<thead>
<tr>
<th>Secretary of Social Development (Coordinator)</th>
<th>Secretary of Work &amp; Employment</th>
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<tr>
<td>Secretary of Government</td>
<td>Secretary of Education</td>
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<td>Secretary of Institutional Relations</td>
<td>Secretary of Sports &amp; Youth</td>
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<td>Secretary of Planning &amp; Management</td>
<td>Secretary of Regional Development &amp; Urban Politics</td>
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<td>Secretary of Social Defence</td>
<td>Secretary of Transportation &amp; Public Works</td>
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<tr>
<td>Secretary of Health</td>
<td>Secretary of Development of the Jequitinhonha &amp; Mucuri Valleys &amp; the North of Minas Gerais</td>
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<tr>
<td>Secretary of Land Regularization</td>
<td>COPASA (Minas Gerais Water &amp; Sanitation Company)</td>
</tr>
<tr>
<td>Secretary of Supply, Agriculture &amp; Livestock</td>
<td>CEMIG (Minas Gerais Electricity Company)</td>
</tr>
<tr>
<td>Social Articulation, Partnership &amp; Participation Advisory Body</td>
<td>COPANOR (Minas Gerais North &amp; Northeast Water &amp; Sanitation Company)</td>
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</table>
Coordination and implementation

The success of Travessia’s targeting efforts comes from coordination among the different state-level Secretariats. A formal meeting of the secretaries is held every two months to plan, coordinate and review results of the MPI. The deputy secretaries in each Secretariat are in turn part of an on-going technical committee.

Essential to the success of the programme is a small, central technical unit. Headed by the Governor’s deputy, the unit is the coordinator and facilitator of the state’s multidimensional poverty work. The unit handles the MPI data analysis, monitoring and evaluation, and communicates frequently with each Secretariat to ensure cohesion. The technical unit is also engaged in international dialogue on multidimensional poverty and has been instrumental in the transfer of this technology to other municipalities in Brazil.

Gross National Happiness

The Gross National Happiness Index, of the Royal Government of Bhutan, is generated to reflect the happiness and general wellbeing of the Bhutanese population more accurately and profoundly than a monetary measure. The measure informs both the Bhutanese people and the wider world about the current levels of human fulfilment in Bhutan, and how these vary across districts and across time. It also informs government policy.

Using an adaptation of the AF methodology, the Government of Bhutan’s Centre for Bhutan Studies released a GNH index in 2008 and revised and updated it in 2011. The recent version has 33 indicators in the nine domains.

The domains are:

- Psychological wellbeing
- Health
- Time use
- Education
- Cultural diversity and resilience
- Good governance
- Community vitality
- Ecological diversity and resilience
- Living standard

The index weights the nine domains equally. The nation’s wellbeing is measured directly by starting with each person’s achievements in each indicator. It identifies four groups of people – unhappy, narrowly happy, extensively happy, and deeply happy – using graded happiness cutoffs.

The GNH index uses two kinds of thresholds or cutoffs: sufficiency thresholds, and happiness thresholds. Sufficiency thresholds show how much a person needs in order to enjoy sufficiency in each of the 33 cluster indicators. Happiness cutoffs identify people who enjoy sufficiency in different proportions of indicators (less than 50%, 50-66%, 66-77%, and above 77%).

Policy selection tools are used to review the potential effects of proposed policies on GNH, and the results of the GNH index will be tracked over time to evaluate interventions. This ‘GNH Policy Lens’ requires that the policy consequences on all relevant dimensions be considered prior to implementation. In addition, project-screening tools are to be implemented in nearly twenty project areas. An important innovation is the ability to track results across states. The stated goal is that all government projects and policies work together to maximise GNH.
OPHI and the Multidimensional Poverty Peer Network have proposed a Multidimensional Poverty Index (MPI) 2015+ to support poverty eradication in the context of the post-2015 development agenda. This headline indicator of multidimensional poverty can reflect participatory inputs and be easily disaggregated, for example by gender, ethnicity, region and other social characteristics (Alkire and Sumner 2013).

Most projections suggest ending $1.25/day poverty would not require much in the way of bending the current trend – so it is achievable. But ending $1.25/day poverty is unlikely to mean the end of the many overlapping disadvantages faced by people living in poverty, including malnutrition, poor sanitation, a lack of electricity, or ramshackle schools.

The goal of the MPI2015+ therefore is to support the eradication of poverty. To make this a key target for national and global action post-2015, poverty must be measured in all its forms. To that end, poverty must first be clearly defined as a multidimensional phenomenon in the new Sustainable Development Goals (SDGs). To support this, OPHI and the MPPN have proposed that a new global MPI 2015+ should be used as a headline indicator of poverty within the post-2015 SDGs, providing an overview of multidimensional poverty to complement a $1.25/day measure.

Such a measure would show:
• How people are poor (what disadvantages they experience);
• To which regions or ethnic groups they belong;
• Inequalities between those living in poverty.

An MPI 2015+ is needed because many studies have found that people who are multidimensionally poor are not necessarily income poor (and vice versa). By focusing only on the $1.25/day poor we may thereby fail to reduce or eradicate acute multidimensional poverty.

Unlike a traditional dashboard, an MPI 2015+ will show how many different aspects of poverty poor people experience at once. This ability to see the relationships between different deprivations can inform more joined-up policy and provide incentives to reduce the many aspects of poverty together, thus breaking apart the silos of poverty-reduction programmes.

The MPI 2015+ will also reflect effective policy interventions quickly. With measures of income poverty, a positive social change – for example in schooling or clean water – may not be reflected for a number of years. The MPI 2015+ measures these aspects of poverty directly, and can therefore inform better policy by showing us which groups experienced the biggest reduction in poverty, and how.

It could also be used to monitor inclusive growth, and to show the nexus between challenges of poverty and environmental sustainability. It can also capture different ‘degrees’ of poverty, making it universally applicable to all countries, whatever their income levels.

The Multidimensional Poverty Peer Network supports policymakers to develop multidimensional measures of poverty. It has been created in response to overwhelming demand for information on implementing multidimensional measures, and for technical and institutional support. It enables early adopters of such measures to share their experiences directly with policymakers in other countries by way of South-South exchanges, including input into the design of the measures, and the political processes and institutional arrangements that will sustain them.

The aim of the network is to improve poverty eradication by bringing poverty measures closer to the lived realities of poor peoples’ lives. It works toward policies that are better designed, more accurately targeted, and more effective in alleviating poverty in all its dimensions.

The network has attracted high-level policymakers such as Ministers from over 30 country, as well as a number of regional and international agency representatives. The network promotes the adoption of national and sub-regional MPIs, advocates for the MPI 2015+ at the international level, and supports research on multidimensional poverty. OPHI acts as the Secretariat of the network, while the German Federal Ministry for Economic Cooperation and Development (BMZ), the network’s participants and OPHI support the network financially.
The Oxford Poverty and Human Development Initiative (OPHI)

The Oxford Poverty and Human Development Initiative (OPHI) is an economic research centre at Oxford University’s Department for International Development (ODID). Led by Director Sabina Alkire, our aim is to build and advance a more systematic methodological and economic framework for reducing multidimensional poverty, grounded in people’s experiences and values.

One of the ways in which we do this is by developing and implementing multidimensional measures of poverty, wellbeing and inequality. These measures go beyond traditional one-dimensional approaches, to incorporate dimensions such as health, education, living standards, quality of work and more innovative dimensions.

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