Individual Deprivation Measure
Knowing who is poor, in what ways and to what extent

The Individual Deprivation Measure (IDM) is a new, gender-sensitive measure of multidimensional poverty. It has been developed to assess deprivation at the individual level and overcome limitations of current approaches that measure poverty at the household level.

WHY A NEW MEASURE OF POVERTY?

Poverty data is incomplete. Despite increased recognition of the relationship between gender and poverty in global development discourse, the conceptualisation and measurement of poverty remains insensitive to gender. Consequently, what is evident 'on the ground' is not yet reflected in global or comparable national data.

UN Women's *Progress of the World's Women 2015-2016* report noted that while 'women's socio-economic disadvantage is reflected in pervasive gender inequalities in earned income, property ownership, access to services and time use… [t]he absence of sex disaggregated data makes it difficult to establish if women are, across the board, more likely to live in poverty than men.' [1]

It remains a challenge to turn evidence from individuals' lived experiences of poverty into information to guide decision-makers in allocating resources for greatest impact. This requires information that clearly captures and conveys:

- who is poor, in what ways, to what extent;
- how gender, age, ability/disability and rural/urban location influence the experience of poverty;
- how these aspects interact to deepen deprivation.

Current poverty measures are limited in their ability to provide these insights for a number of reasons, including a predominant focus on income or consumption and reliance on household-level measurement.

While multidimensional measures move beyond income, they tend to focus on a limited range of dimensions, such as health or education, and remain focussed at the household level.

These limitations matter. People living in poverty say there are many other dimensions of life that keep them poor and should be measured. And estimates indicate that around one-third of all inequality is *within, rather than between, households*. [2]

The Australian Research Council (ARC) research that funded the IDM was driven by a recognition that existing poverty measures are insensitive to gender differences. Additionally, current measurement approaches are not grounded in the views of those with lived experience of poverty. [3,4]

Philippines

Indonesia

Malawi

Angola

Fiji

Mozambique

The research to develop the IDM was conducted over three phases. It began with participatory fieldwork in six countries with women and men with lived experience of poverty.

DEVELOPING A NEW MEASURE OF POVERTY

A desire to improve poverty measurement and understand the relationship between gender and poverty saw the establishment of an interdisciplinary international research collaboration in 2008. The collaboration was led by the Australian National University (ANU) and undertaken in partnership with the International Women's Development Agency (IWDA), the Philippines Health Social Science Association, Oxfam Great Britain (Southern Africa), and the University of Colorado at Boulder, with additional support from Oxfam America.

This research (2009-2013) was funded by the Australian Research Council (ARC) and partner organisations, with significant additional support from the University of Oslo.

The aim was 'to develop a just and justifiable measure of poverty that is gender-sensitive and capable of revealing gender disparities.'

PHASE 1: QUALITATIVE

Three sites (urban, rural and highly marginalised) in each of the six fieldwork countries (Angola, Fiji, Indonesia, Malawi, Mozambique, the Philippines) were chosen to determine how women and men with lived experience of deprivation would define poverty. Six research methods were used: (1) informant interviews; (2) guided group discussion; (3) a threshold question about the existence of different levels of poverty followed by brainstorming the features of a 'poverty ladder'; (4) brainstorming and ranking dimensions needed to live free from poverty; (5) household mapping to explore whether poverty is different for individual members of the household; and (6) in-depth individual interviews. Each method was used with several groups of participants, in most countries categorised into six groups: older women, older men, middle aged women, middle aged men, young women and young men. A total of some 1,115 people participated.

The initial analysis of phase one data was conducted by local research teams to draw out local meaning and context relevant to interpretation. Analysis workshops involving the project team and local research teams reviewed findings, identified commonalities and differences across sites, and began to draw out common themes from rich and diverse insights. Participatory insights helped to identify measurement requirements and a long list of candidate dimensions. While the same deprivations were broadly agreed upon by men and women of all age groups, they were often explained by different reasoning.

Nearly all participants believed that age and gender can affect the content of deprivation, and recognised that highly gendered socialised roles and responsibilities affect the burdens participants face when deprived. Men and women tended to identify different types and levels of control over the decisions that affect their lives, in the different spaces of public political decisions, the household or social interactions. The opportunity sets of men and women were also different, and these changed during the life course. These insights informed a focus on which dimensions to measure, and how to measure them.

Field research in Fiji

Field research in Malawi

PHASE 2: RANKING

This phase sought to identify those dimensions of deprivation that should be included in a multidimensional measure of poverty, and give a sense of the relative priority those dimensions should have. Local research teams returned to all sites to clarify participants' priorities among 25 dimensions of poverty. The focus was to identify a feasible subset of dimensions that would preserve representative accuracy as part of a multidimensional measure. Some 1800 participants were involved in this phase. Again, research participant groups were divided by sex and age. Participants ranked their top 15 priorities individually and identified any important dimensions missing from the list of 25.

There was considerable consistency across sites and participants in dimension ranking. However, though both men and women identified similar deprivations, there were some gender differences in ranking the importance of those dimensions, or aspects of those dimensions.

PHASE 3:

DEVELOPING AND TRIALLING THE IDM

This phase involved the construction and trialling of a measure of multidimensional poverty. Researchers considered the insights from phase one and two, and drew on gender and development literature. Fifteen areas of life were selected for inclusion in the IDM: food, water, shelter, health, education, energy/ fuel, sanitation, relationships, clothing, violence, family planning, environment, voice, time use, and work. Some dimensions were included because of their capacity to reveal gender disparity; some of the original 25 dimensions were interrelated and could be reduced to a single dimension; others were assessed as less relevant to policy intervention or not adequately supported by the data collected. The research team also reviewed recent poverty measurement innovations, assessing the capacity of a new measure to improve on existing approaches.

For each dimension, indicators were selected based on their validity, reliability, specificity, feasibility, and comparability. In each case we were interested in a participant's access to, use of and achievement or outcome in the dimension. Many of the survey questions were drawn from existing or recently developed multi-topic surveys. Where necessary, we developed new questions. The IDM was then tested in a proof of concept trial in the Philippines via a nationally representative survey conducted with 750 randomly selected households, with 1806 respondents completing the questionnaire. While challenges were identified in measuring some dimensions, the trial established the feasibility of individual-level measurement of multidimensional poverty.

To read the full ARC research report, visit *individualdeprivationmeasure.org/resources*

TESTING A NEW MEASURE OF MULTIDIMENSIONAL POVERTY

The first IDM study beyond the proof-of-concept tral in the Philippines was carried out in Fiji (2014–17) by IWDA working with the Fiji Bureau of Statistics, with funding support from the Australian Government through the Department of Foreign Affairs and Trade in Fiji.

The study, with 2966 respondents, focused on areas identified by a World Bank Poverty Mapping study as poverty hot spots to explore the additional insights that could be offered by gender-sensitive, individual-level measurement. [5] The Fiji study [3] enabled the first full analysis of data generated by the IDM, which began to reveal its power as a measure as well as the potential of the data it generates. A key strength of the IDM identified by stakeholders in Fiji was its ability to illuminate lived realities, acknowledging the drivers of poverty in a way that income-based measures did not. However, the study also identified areas of uncertainty, highlighting the need for further conceptual and technical work to improve the performance and reliability of the measure and methodology. It also highlighted the challenge of effectively presenting the very large quantity of data the IDM generates. [3]

PREPARING THE IDM FOR GLOBAL USE

In 2016, the Australian Government made a further investment in the IDM through a four-year partnership with the ANU and IWDA to prepare the IDM for global use by 2020. In the first year of the new program, IWDA undertook an IDM study in Nepal, and the ANU focused on revising the survey and undertaking statistical analyses of the data to date. This allowed for identification of areas to strengthen and refine the IDM, and overcome some of the initial challenges the earlier studies had revealed.

A review of the measure and survey instrument involved workshopping with subject matter experts and technical specialists as well as an international peer review process. The multidimensional design of the IDM survey instrument creates trade-offs between comprehensive cover for each dimension, and selection of critical elements that present the extent of deprivation and, where appropriate, the gendered nature of each dimension. Because of the complexity this presents, dialogue and feedback has been key in a rigorous and iterative process to refine the survey instrument.

The following sections summarise work completed or underway as we refine and further develop the IDM for global use. See the 2017 IDM Methodology Update at *individualdeprivationmeasure.org/ resources* for further details on much of this work.

WHY DOES THE IDM MATTER?

The IDM improves on existing approaches to measuring poverty and gender equity in important ways.

- It assesses poverty at the individual level, enabling disaggregation by sex, age, disability and geographic location.

- IDM data can be analysed to reveal intersections of disadvantage.

- It assesses a wider range of factors as relevant to poverty, including dimensions important for revealing gender disparity.

- It is the first poverty measure that is grounded in the views of people with lived experience of poverty, while remaining comparable across contexts and over time.

- The IDM assesses deprivation on a scale rather than categorising people as either 'poor' or 'not poor'. Knowing how poor individuals are, and in what dimensions, matters for policy and programming, and assessing the effectiveness of action.

- The IDM uses an innovative sampling approach, seeking to interview multiple adults in sampled households, enabling analysis within households.

Data and policy success are inextricably linked, and the lack of attention to gender data over many years has created significant gender data gaps.

Data can help to make the nature and scale of problems visible, inform targeted and effective action, and track the impact of policies and programs on individuals, communities, and countries.

By measuring the situation of individuals, the IDM can highlight priorities for particular groups or in specific places, supporting decision makers to focus efforts to ensure we leave no one behind.

SAMPLING

How many respondents?

Typically, conventional household survey sampling involves interviewing one member on behalf of the household and projecting this information onto all household members, assuming equal access to resources; or interviewing one male and one female per household to identify sex-based differences.

An important innovation of the IDM is interviewing multiple adults in sampled households, to enable analysis of differences within households. Many gendered aspects of deprivation occur within the household; it is therefore not appropriate to survey a household head on behalf of all individuals within that household. But how many individuals in a household are sufficient to reveal differences within the household where they exist? What are the marginal benefits of sampling additional individuals?

Sampling multiple individuals in a household provides the data to statistically test various sampling strategies less than 'all adults', to determine the most appropriate approach given the IDM's core focus on illuminating the gendered nature of poverty. Time is an important resource, particularly for poor people, and most especially for poor women. The IDM Program will continue to assess the theoretical and statistical merits of different sampling strategies, and associated costs, as data from further studies becomes available.

Who is an adult?

Any age based definition of 'adulthood' has a degree of arbitrariness. Initially, the target population for the IDM was individuals aged 18+, in line with international definitions. However, in the countries the IDM is currently working in, people take on significant responsibilities from an earlier age. In Indonesia, South Africa and Myanmar, the younger age of 16 years has been adopted.
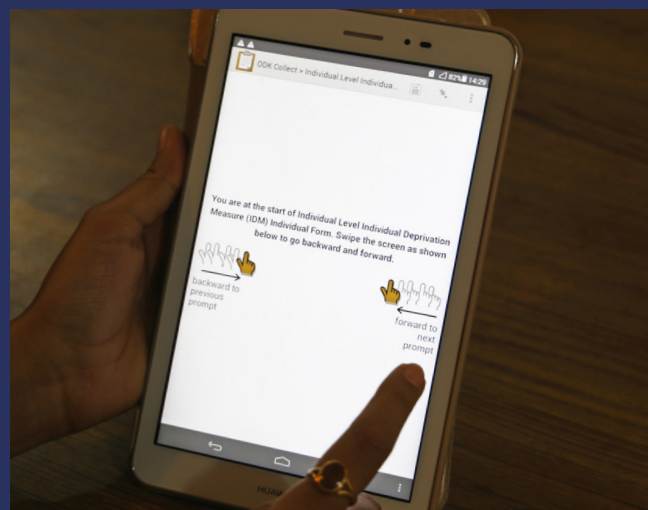
Image credit: Alice Floyd/IWDA

CONSTRUCTING AN INDEX OF MULTIDIMENSIONAL POVERTY

While the multidimensionality of poverty may be widely recognised, there is considerable debate about how best to reflect this in measurement.

Composite indices offer the simplicity of a single number that summarises and conveys complex information, and the ability to compare and rank across contexts, which can generate engagement and action. [6] However, some question whether aggregation adds value or hides important detail. [7]

Constructing a composite index such as the IDM involves two main challenges: identifying who is impoverished, and aggregating dimensions.

Who is poor?

Identifying deprived or poor individuals involves:

1. Selecting appropriate dimensions that sufficiently capture the lived reality of poverty. This was done as part of the initial ARC research to develop the IDM.

2. Constructing indicators that measure the underlying concept of each dimension, and determining cut-off scores for those dimensions to identify who is deprived. The IDM moves beyond commonly used binary cut-offs to introduce levels of deprivation for each indicator.

Initial indicators and questions were drawn from relevant existing surveys where possible.

As part of readying the IDM for global use we revisited the participatory phase of research to identify the key themes that would be represented in each dimension of the revised survey instruments. *For details see chapter 7 of the 2017 Methodology Update.*

Aggregating dimensions

The IDM incorporates 15 dimensions, each with a number of themes assessed by indicators, using a scale to identify extent of deprivation, from 'extremely deprived' to 'not deprived'. Scores on each theme are aggregated to generate a dimension score, and dimension scores are aggregated to generate an overall IDM score.
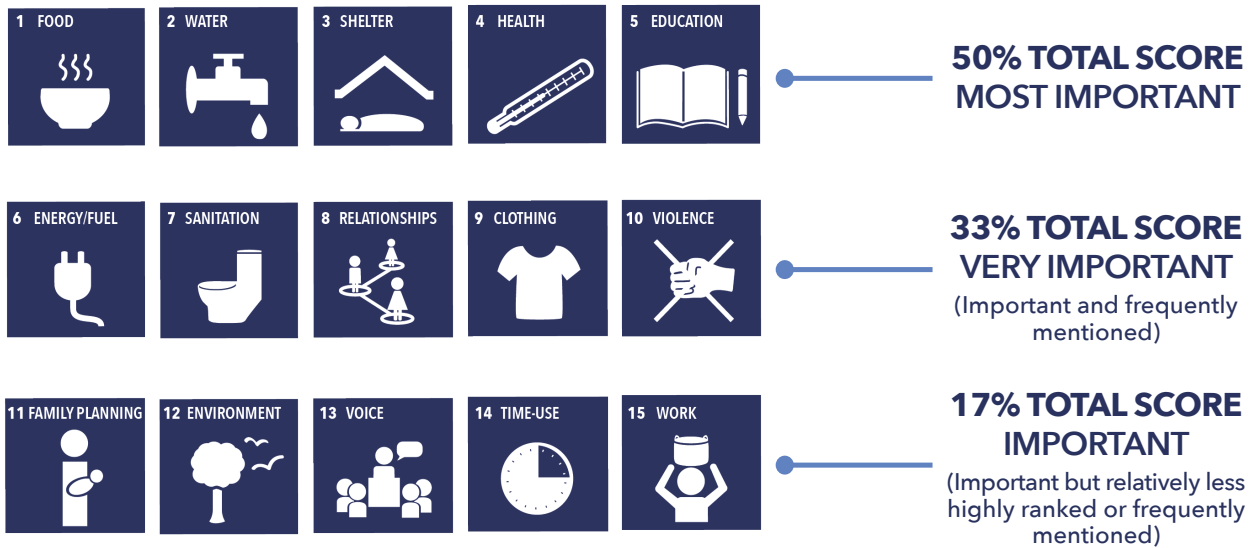
The initial method of aggregating (weighted) dimension scores into an overall IDM score meant that deprivation in one dimension, such as water, could be offset by non-deprivation in another, such as food. There are important questions about whether this is appropriate, and the IDM program continues to test and consider the implications of different approaches to aggregation.

Weighting

The initial ARC research to develop the IDM used weighting within dimensions to give greater significance to improvements from more deprived circumstances. Weighting was also used to give some dimensions greater significance than others, to reflect the relative importance of particular dimensions in the initial participants' rankings.

The figure below illustrates the relative priority initially accorded dimensions to reflect participant ranking during the ARC research to develop the IDM. The top row includes dimensions most consistently ranked as top priorities; in the middle row are the next ranked priorities; the bottom row shows priorities that were ranked as important, but relatively less so than those of other dimensions. The initial three-tiered weighting system assigned weighting of x1.5 to the top five dimensions, x1.0 to the middle ranked dimensions, and x0.5 to the lower ranked dimensions.

1 FOOD	2 WATER	3 SHELTER	4 HEALTH	5 EDUCATION	**50% TOTAL SCORE** MOST IMPORTANT
6 ENERGY/FUEL	7 SANITATION	8 RELATIONSHIPS	9 CLOTHING	10 VIOLENCE	**33% TOTAL SCORE** VERY IMPORTANT (Important and frequently mentioned)
11 FAMILY PLANNING	12 ENVIRONMENT	13 VOICE	14 TIME-USE	15 WORK	**17% TOTAL SCORE** IMPORTANT (Important but relatively less highly ranked or frequently mentioned)

Work is continuing on methods of aggregation and the impact of different approaches to weighting. A question has been added to the IDM survey to ask respondents how they would prioritise the 15 dimensions, including whether they would give some dimensions equal priority. This will enable use of participatory weights in calculating an overall IDM score.

MEASURING SENSITIVE DIMENSIONS

The IDM measures some sensitive dimensions including violence and voice in the home and community.

10 VIOLENCE

VIOLENCE

Measuring violence as a dimension of gender-sensitive, multidimensional deprivation is a new and important, yet difficult thing to do. There are various reasons for including violence as a dimension. Violence, or the absence of safety/security, is a deprivation in itself. Poor neighbourhoods are often characterised as less secure than others. Violence is gendered, and can restrict women's access to education, mobility and work (paid and unpaid). It can reduce income and increase expenses. It is disempowering and can have long lasting effects.

Violence also affects men, so it is important to capture as a dimension of deprivation for respondents of various genders (the IDM is seeking to move beyond a binary understanding of gender), although the nature and location of violence experienced by men and women often varies.

For the IDM, the key challenge is how to conceptualise and ask about violence as a dimension of deprivation in ways that keep women safe and recognise that men experience violence too. This is a particular challenge, given the IDM sampling strategy of interviewing multiple adults in a household, which allows respondents to know that a question on violence is asked of other respondents.

A range of approaches are taken to prioritise safety, including not asking questions that could identify either perpetrator or location of violence, and seeking specific consent to ask about violence. *For further information, see section 5.1.12 of the 2017 IDM Methodology Update.*
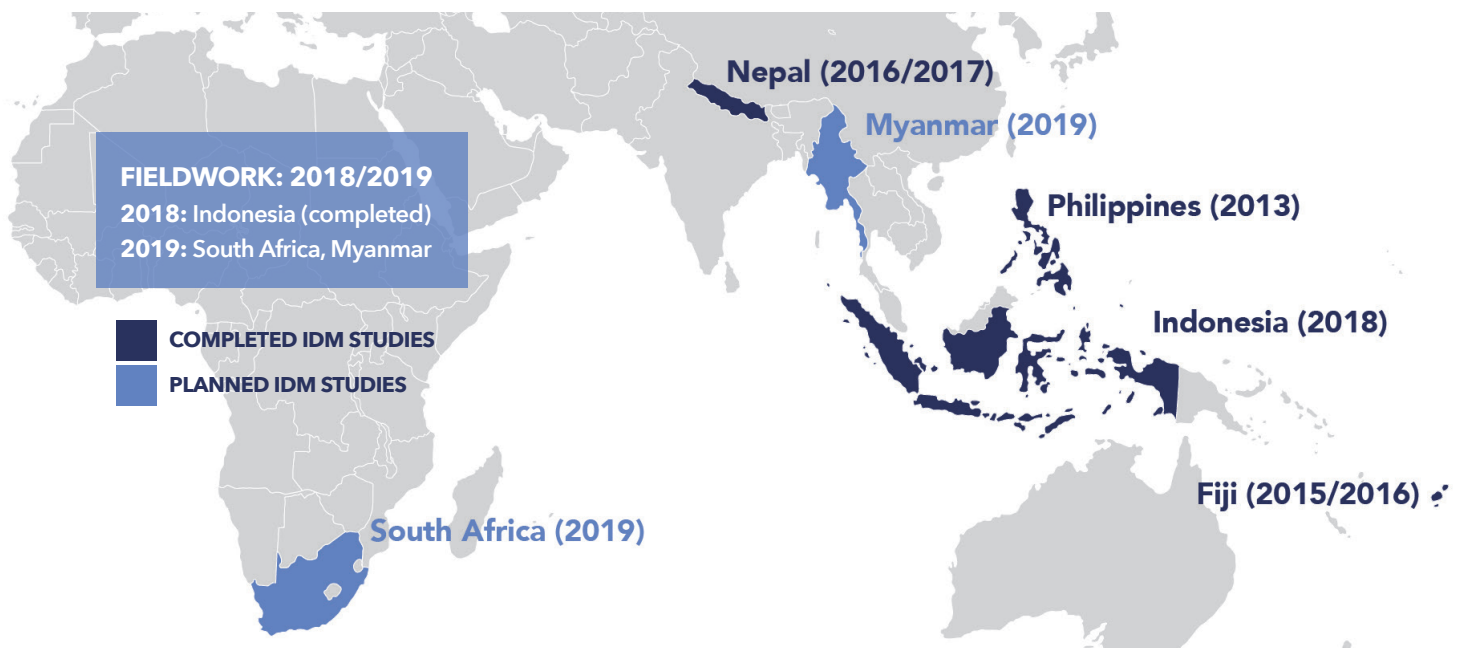
13 VOICE

VOICE

There are potential risks in asking individuals about their empowerment at the political, community and family levels. Those who have been subjected to control may be vulnerable to retribution (further control or even violence) if the perpetrator thinks they have reported such control. Controlling behaviours are a form of violence, and are sometimes associated with physical violence. Knowing about the interplay between control (lack of voice or lack of empowerment) and poverty is important for evidence-informed policy making, and is a deeply gendered issue. Consequently, it is important to ask these questions, but also to understand and mitigate risks. *For further information see section 5.1.13 of the 2017 IDM Methodology Update.*

A follow-up study was conducted in Indonesia in 2018, shortly after the main IDM study, to assess the impacts and implications for respondents of asking sensitive questions. This also provided an opportunity to follow up on respondents' experiences of answering other questions that may have been sensitive (around family planning), complicated (time use), or potentially confusing or context specific (clothing, shelter). Including these other issues ensured we were not only asking about violence and voice. Similar follow-up studies will be undertaken in subsequent IDM studies in 2019. Findings from these studies will inform the sampling strategy to be recommended, on both technical and ethical grounds.

TOWARDS 2020

The IDM Team is continuing research and testing to ready the measure for global use in 2020. Results from the study in Indonesia (2018) will be shared in 2019. Fieldwork in South Africa and Myanmar is planned for 2019, with results to be shared in late 2019. Visit *individualdeprivationmeasure.org* for updates

Nepal (2016/2017)

Myanmar (2019)

Philippines (2013)

Indonesia (2018)

Fiji (2015/2016)

South Africa (2019)

FIELDWORK: 2018/2019
2018: Indonesia (completed)
2019: South Africa, Myanmar

COMPLETED IDM STUDIES
PLANNED IDM STUDIES

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1. UN Women 2015, *Progress of the World's Women 2015-2016: Transforming Economies, Realising Rights*, UN Women, pp 44.
2. Kanbur, Wagstaff. 2014, How Useful is Inequality of Opportunity as a Policy Construct? *Policy Research Working Paper;* No. 6980. World Bank Group, Washington, DC.
3. Fisk K, Crawford J 2017, *Exploring multidimensional poverty In Fiji, findings from a study using the Individual Deprivation Measure*, International Women's Development Agency, Melbourne.
4. Bessell, S 2015, The Individual Deprivation Measure: measuring poverty as if gender and inequality matter, *Gender and Development*, vol. 23, no. 2, pp. 223–240.
5. World Bank 2011, *Republic of Fiji: Poverty trends, profiles, and small area estimation (Poverty Maps) in Republic of Fiji (2003–2009)*, World Bank Publications, Suva.
6. OECD 2008, *Handbook on constructing composite indicators: methodology and user guide*, Organisation for Economic Co-operation and Development, Paris.
7. Ravallion, M 2011, Mashup indices of development, *The World Bank Research Observer*, vol. 27, no. 1, pp 1–32.

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