CHAPTER SIX
PILOTING THE INDIVIDUAL DEPRIVATION MEASURE IN THE PHILIPPINES

THE THIRD AND FINAL PHASE IN OUR PROJECT TESTED OUR NEW PROPOSED INDIVIDUAL DEPRIVATION MEASURE. THE AIM OF THE PILOT WAS THREEFOLD: FIRST, WE SOUGHT TO EVALUATE THE QUALITY OF OUR SURVEY AGAINST ITS PROPOSED AIMS, SUCH AS WHETHER IT WAS FEASIBLE TO ASSESS POVERTY MULTIDIMENSIONALLY AT THE INDIVIDUAL LEVEL, WHETHER THE SURVEY COULD REVEAL INTRA-HOUSEHOLD DISPARITY, AND WHETHER IT COULD MAKE COMPARABLE ASSESSMENTS ACROSS CONTEXTS; SECOND, WE SOUGHT TO COMPARE THE RESULTS OF THE IDM AGAINST OTHER MEASURES OF POVERTY; AND THIRD, WE HOPED TO VALIDATE THE RESULTS OF THE IDM AGAINST PERCEPTIONS OF POVERTY AMONGST OUR PARTICIPANTS AND NATIONAL RESEARCH TEAMS.

Data enumeration, entry and initial analysis were conducted by Pulse Asia, a survey and analytics firm based in Manila. Their report on the experience of administering the IDM is available at www.genderpovertymeasure.org.

Sampling

Our project aimed to address a long-standing challenge with survey collection. Many multi-topic surveys interview only a single member of the household or, if they do interview a second person, it is only for separate modules than those covered by the primary respondent. For example, the head of household may be asked a range of questions on consumption, education and health, but then a female in the household may be asked about use of contraception, pregnancy, childbirth, and prenatal care. In order to evaluate the intra-household distribution of deprivation, we abandoned this common practice and asked questions of multiple household members about each dimension.

Recently, USAID and other research partners developed the Women’s Empowerment in Agriculture Index. The survey used to construct that index required sending two data enumerators to each household interviewed to assess the level of empowerment among men and women within the household. By doing so, the survey challenged the long-standing tradition of having a single enumerator per household. While this is a welcome improvement, interviewing only two household members would not have allowed us to explore other possible variations of intra-household distribution, such as between generations. It was therefore necessary to design a sampling method that allows for both randomised sampling of households that would generate nationally representative figures and interviewing multiple members of households to examine intra-household differences. As noted in the preceding chapter, we attempted to interview all adult household members, thereby ensuring the intra-household distribution could be investigated across all adult members.

A total of 750 households consisting of a random sampling of Filipino households were surveyed in the third phase. Using the 2000 National Statistics Office Census as the sampling frame, Pulse Asia randomly selected households within five sub-national regions: the National Capital Region, North and Central Luzon, South Luzon, the Visayas, and Mindanao. A total of 150 households were interviewed in each of these five areas. Following the random selection of households, data enumerators aimed to interview every adult household member. Following discussion with an external expert, 80 small financial inducements were used to encourage participation by all household members. In some cases, data enumerators remained in the surveyed area for multiple subsequent days to attain interviews with additional household members. However, it was still not possible to always interview all household members, and this may have resulted in a slightly non-randomised and potentially biased selection of individual respondents. This will be discussed further below. Briefly, it may be that individuals who were not available for interview, because they were away at work, systematically differed from those interviewed, both in terms of gender and in terms of deprivation.

The initial respondent answered a series of questions relevant to all household members—that is, questions that could not have individual variation (such as the nature of the dwelling, whether it had electricity, the nature of the household toilet, and so on). Both the initial respondent and all subsequent respondents answered the individual questionnaire, regarding their own life circumstances.

80. Juan Munoz, one of the founding partners of Sistemas Integrales, is an expert in the design and implementation of household, impact evaluation and agricultural surveys. www.ariel.cl/index.php/partners/87-juan-munoz
A total of 750 households were interviewed, and had at least one respondent.

<table>
<thead>
<tr>
<th>NO. OF HOUSEHOLDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st respondent</td>
</tr>
<tr>
<td>2nd respondent</td>
</tr>
<tr>
<td>3rd respondent</td>
</tr>
<tr>
<td>4th respondent</td>
</tr>
<tr>
<td>5th respondent</td>
</tr>
<tr>
<td>6th respondent</td>
</tr>
<tr>
<td>7th respondent</td>
</tr>
<tr>
<td>8th respondent</td>
</tr>
<tr>
<td>TOTAL</td>
</tr>
</tbody>
</table>

**TABLE 13: RESULTS OF COMPLETED HOUSEHOLD INTERVIEWS IN THE PHILIPPINES**

The ratio of completed interviews to attempted interviews is high. Only a small fraction of attempted interviews could not be completed (104 uncompleted out of 1,910 attempted interviews). The interview completion rate indicates that the survey design and length are feasible options for a range of development actors that might be interested in multidimensional deprivation measurement.

The completion rate of modules within the survey was also high. In the case of four dimensions—(i) freedom from violence, (ii) family planning; (iii) voice and (iv) respect in relation to paid and unpaid work—not all respondents received a score. In the case of violence, respondents were given an explicit choice whether they wished to answer the module, and 163 (just over 9%) declined to do so. In the case of family planning, some respondents were not asked the module (females 50 years and over), while others said that family planning was not relevant to their life circumstances (a total of 775 respondents or 43 per cent of the sample received no score for this dimension81). In relation to voice, some said they did not know to what extent they could raise issues or affect outcomes (17 respondents or under 1%), while in the dimension dealing with respect in relation to paid and/or unpaid work, 78 respondents (4.3%) said they performed neither paid nor unpaid work.

**Initial Results**

According to our survey, Filipinos fall into the following categories of the IDM.

**TABLE 14: INITIAL RESULTS OF HOUSEHOLDS IN THE PHILIPPINES**

<table>
<thead>
<tr>
<th>IDM score</th>
<th>Males (no.)</th>
<th>Males (%)</th>
<th>Females (no.)</th>
<th>Females (%)</th>
<th>Full Sample (no.)</th>
<th>Full Sample (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>90+ Not deprived</td>
<td>61</td>
<td>7.4</td>
<td>129</td>
<td>13.1</td>
<td>190</td>
<td>10.5</td>
</tr>
<tr>
<td>80-90 Somewhat deprived</td>
<td>322</td>
<td>39.1</td>
<td>426</td>
<td>43.3</td>
<td>748</td>
<td>41.4</td>
</tr>
<tr>
<td>70-80 Deprived</td>
<td>259</td>
<td>31.5</td>
<td>276</td>
<td>28.1</td>
<td>535</td>
<td>29.6</td>
</tr>
<tr>
<td>60-70 Very deprived</td>
<td>130</td>
<td>15.8</td>
<td>120</td>
<td>12.2</td>
<td>250</td>
<td>13.8</td>
</tr>
<tr>
<td>50-60 Extremely Deprived</td>
<td>44</td>
<td>5.3</td>
<td>30</td>
<td>3.1</td>
<td>74</td>
<td>4.1</td>
</tr>
<tr>
<td>40-50</td>
<td>7</td>
<td>0.9</td>
<td>1</td>
<td>0.1</td>
<td>8</td>
<td>0.4</td>
</tr>
<tr>
<td>Less than 40</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0.1</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>Total</td>
<td>823</td>
<td>100</td>
<td>983</td>
<td>100</td>
<td>1,806</td>
<td>100</td>
</tr>
</tbody>
</table>

**TABLE 15: COMPARING PERCENTAGE OF POOR PEOPLE IN THE PHILIPPINES BY MEASURES**

At the population level, we find considerable variation with other estimates of poverty in the Philippines. In the chart below, we compare the percentage of poor people in the Philippines as estimated by the World Bank’s two monetary poverty lines, the MPI, and the national poverty line.

The results of the IDM appear initially consistent with a plausible interpretation of the deprivation experienced by people in the Philippines. According to the IDM, 48% of the population counts as deprived, very deprived, or extremely deprived. This is slightly higher than the percentage of Filipinos thought to be living on less than two dollars per day (with all the problems associated with purchasing power conversion entails). A further 41.4% of the population fall in the category of being somewhat deprived. This result is striking, as only 10.5% of the population clearly counts as not deprived according to

82. www.nscb.gov.ph/poverty/defaultnew.asp

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the IDM. However, this too may be plausible. General surveys are conducted for marketing purposes that use proxies for household income to categorise families on a scale of A-B-C-D-E, where each letter represents a socio-economic classification based on wealth/assets, as determined by proxies including the conditions in the community, the house itself, whether it is owned, and its furnishing. On this scale, estimates place approximately ten per cent of Filipino families in the classes of A, B, and C combined, with approximately 60% in class D, and 30% in class E. These figures are broadly consistent with our categorisations, on which many Filipinos are classified as somewhat deprived or experiencing deprivation, while recognising that within these groups there is significant variation in the extent of the deprivation. None of these reflections are intended to stand alone as verifications of the value of the IDM, and the fact that it deserves to complement other measures of deprivation. Since our method seeks to improve upon what we see as the shortcomings of other methods, we should expect this new measure to differ from these. Nonetheless, it is useful to see whether the results it generates are at least somewhat plausible when compared with the results of other measures.

Another way to check the plausibility of the IDM is by plotting all IDM scores against the household asset index which comprises the financial axis of the measure. As mentioned in the preceding chapter, our fieldwork indicated that individuals consider income, wealth and overall financial status very important as dimensions necessary for a life free from poverty and hardship. We therefore used a crude asset index as a proxy for a household’s financial status (recognising that this is imprecise, but feasible given time constraints associated with a short multi-topic survey).

As above, the middle line represents the median, the edges of the boxes represent the 25 and 75 percentiles, the dots represent extreme/outlying cases, with the numbers specifying the relevant respondent. The horizontal line within each box shows the median. The x axis is the asset index interval, and the y axis is the composite IDM score.

Plotting the asset index on a one to five interval scale shows a positive relationship between household assets and IDM score. However, it should be noted that there is still a great range among individual scores at any given asset level. This result confirms what we had suspected: that an individual’s multidimensional deprivation can diverge greatly from her financial status. Some individuals with fewer financial assets may avoid many deprivations through the provision of public services, strong interpersonal and communal relations and generally high conversion factors between material goods and individual achievements. Others may be in the opposite situation—possessing a number of modern assets but failing to avoid multidimensional deprivation, perhaps in the absence of the provision of public goods such as roads, or when facing a lack of social cohesion, oppressive social structures and other challenges that make it difficult to convert material goods into individual achievements.

One final check on the plausibility of the IDM is a comparison of individual hunger scores versus an IDM. Absent any further information, going hungry is a good proxy for being more generally deprived. The less hungry an individual is, the better her multidimensional score. But again, there is considerable variation between a person’s IDM and hunger score.

As above, the middle line represents the median, the edges of the boxes represent the 25 and 75 percentiles,

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84. UN WOMEN still claims that 70% of the poor are women at www.unifem.org/gender_issues/women_poverty_economics. The oft-repeated claim that women eat last was made perhaps most prominently at the Fourth World Conference on Women in 1995, by the Executive Director of the World Food Program. See www.un.org/esa/gopher-data/conf/wfcs/conf/una/950906150325.txt.
the end lines represent 0 and 100 percentile, and the dots represent outliers. The x axis is the prioritarian weighted score in the hunger dimension, and the y axis is the composite IDM score.

We also find that the thresholds we have proposed for the IDM appear to be useful guides for anti-poverty work. With 4.6% of the population falling in extreme deprivation, and a further 13.8% being very deprived, the thresholds suggest an ability to identify a small group of individuals that are the ‘poorest of the poor’ and a larger group who are extremely poor. These findings need to be validated and explored in further detail (for example, through longitudinal studies that examine whether the very deprived and extremely deprived are chronically poor).

Gender differences

The reader will note in the table of initial results above a striking finding. Women appear slightly better off than men in our sample. This was unexpected. Our examination, using a t-test, finds that this difference is statistically significant. Women, on average, scored 79.97, and men, on average, scored 77.43.

Women had statistically significant higher scores in the following dimensions: shelter, health, education, toilet, decision-making and personal support, clothing and personal care, freedom from violence, family planning, and respect in paid and unpaid work. Men had statistically significant higher scores in leisure time.

While we do not endorse the unsubstantiated slogans that women make up 70% of the poor or that poverty always wears a woman’s face or women always eat last and worst,84 it is fair to say that we did expect that a gender-sensitive multidimensional measure of deprivation would reveal women to be worse off in the Philippines. It did not. There are several possible explanations for how this result came about.

First, it bears noting that the Philippines scores well in many composite indices of gender equity. The Philippines ranks 12th on the OECD’s SIGI, 9th on the Global Gender Gap Index,85 and 25th on the Gender Equity Index. Women in the Philippines have slightly higher literacy than men, are much more likely to attend tertiary education, and live longer (a life expectancy ratio of 1.06). Based on these figures, we expect that when the measure is piloted in a different country, with more pronounced gender inequalities in dimensions addressed by our measure, we will see different results. But we recognise that in several important dimensions, such as income, men are doing better than women in the Philippines.86

Second, the design of the sampling method may slightly bias our results by excluding men who are well off. Households, we aimed to interview every adult family member if possible. This was to help us explore a) whether it was possible to capture deprivation information on multiple household members for the purpose of multidimensional measurement and b) to see whether there were systematic intra-household differences. But it may be that by using this sampling method, we tended to miss interviews with men who were well-off in their households and engaged in high-quality, formal employment. Such men may have (arguably) been less likely to take the survey, and therefore did not balance the worse-off men engaged in subsistence agriculture or informal employment who were still available for interview. At this point, this explanation is purely speculative.87

Third, in some dimensions, individuals’ subjective assessment of their objective situation is the basis for their score. It is possible that standards of assessment vary in a systematic way between men and women such that men, on average, tend to rate things as slightly worse than when women evaluate the same objective situation. Men scored slightly worse than women on the environment. But this seems difficult to reconcile with the fact that men and women should more or less live and work in the same environment (though some forms of employment dominated by men could potentially expose them to additional environmental hazards). It is possible that men were more likely to register that environmental hazards exist even when in fact they did not face higher rates of environmental hazards.

Fourth, the nature of the IDM is such that it treats deprivations equally between men and women, even if in fact a particular deprivation is experientially worse for a woman than a man (or vice versa). For example, both women received the same score as men when subject to violence. But it may be that violence of a private or sexual nature suffered by a woman, especially in the home where she typically cannot avoid the violence, is experientially worse than a similar degree of violence of a public physical nature suffered by a man. Most obviously, lack of access to or control over contraception is arguably worse for a woman than a man, because she faces the direct physical and health implications of an unwanted pregnancy. The reader will note in the table of initial results above a striking finding. Women appear slightly better off than men in our sample. This was unexpected. Our examination, using a t-test, finds that this difference is statistically significant. Women, on average, scored 79.97, and men, on average, scored 77.43.

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pregnancy and a disproportionate share of the unpaid care work associated with an additional child, with flow-on implications for her ability to undertake paid work. However for the IDM, women are scored the same as men when they do not have access to modern contraception or face barriers in its use.

Fifth, it is important to recognise that many important gender inequities occur above the minimum deprivation threshold where our measure stops tracking individual achievement. For example, women hold only 27% of the parliamentary seats in the Philippines⁸⁸, and they have fewer opportunities for economic empowerment. But these are areas in which our measure will not capture information, as it is focused on deprivations below a minimally acceptable threshold. All that our measure shows in the Philippines is that deprivations in the areas we measured are not registered more frequently among women than men.

Sixth, and finally, the fact that men are worse off in some dimensions is a separate question from whether this constitutes gender injustice. Higher dropout rates among men, or worse health outcomes, may or may not be an instance of gender injustice, depending on what the causes of those outcomes are. If men are smoking and drinking at higher rates, and this explains worse health outcomes, it is arguably not a form of gender injustice (even if it might be an appropriate problem to target with social policy). Just as a persecuted minority group may have higher objective living standards than the majority group that persecutes them, so too may women face (slightly) less objective deprivation, despite the patriarchy they face.

Contrast with MPI, individual level

We measured, as close as possible, the MPI for each household in our sample by including the same questions that are used to calculate the MPI in the administered survey. We were not able to use the exact same data because our survey instrument did not include a measure of child nourishment due to practical and financial limitations. However, for the most recent MPI assessment of the Philippines (using a 2008 Demographic and Health Survey), OPHI did not have information on either child nourishment or household nutrition. With this information in hand, we were able to compare an individual’s IDM score, our evaluation of their MPI status, and OPHI’s reported levels of MPI poverty in the country.

On our calculation, 7.3% or 55 households appear MPI poor. This is lower than the current calculation reported by OPHI for the MPI of 13.4%.⁸⁹ There are several possible explanations for the difference. First, the OPHI MPI calculation for the Philippines currently contains no data for both school attendance and nutrition. It is likely that if this data were collected the MPI would be lower. Second, we do not capture BMI (which is the MPI indicator for nutrition), and so use a hunger score as a substitute indicator to populate the MPI (using a cut-off of six points or under from a maximum of 15 as MPI deprived in nutrition). It is possible that this contributes to a slight lowering of our approximated MPI. Third, the MPI calculation reported by OPHI is from a 2008 DHS survey, while ours is from our 2013 survey. It is possible that progress in the intervening years has lowered the MPI deprivation (for example, through gains in education and reductions in child mortality). Finally, one expects some variation between any calculations of the MPI and both reported figures may be within a sensible standard error.

For those households in the Philippines that were not MPI deprived (695 of the 750 households surveyed), 402 contained at least one household member who scored in the deprived range, or under 80, on the IDM. Of these 402 households, 152 contained a household member with an IDM score of 70 or less and 33 contained a household member who scored under 60. In other words, nearly 58% of the 695 households in our sample, which count all individuals in the household as not poor using our MPI assessment contain at least one member who is deprived on the IDM. Of the households in our sample that are not classified as deprived on our MPI assessment, nearly 22% includes a member who is very deprived or extremely deprived on the IDM.

In the other direction, there are only two households in the sample that count as deprived using our application of the MPI which do not have at least one member who scores lower than 80, i.e. in the deprived range, on the IDM.

It appears quite clear that the IDM reveals a good deal of deprivation that the MPI masks. The IDM certainly sets a higher bar for measuring deprivation. But more importantly it reveals deprivation within households that is not visible using the MPI.

Intra-household differences

By measuring deprivation at the individual level, the IDM provides an opportunity to explore whether differences exist among members of the same household. One way to explore this variation is simply to compare each respondent in the household to all other respondents. In our sample there was wide variation within households, as demonstrated by comparing each respondent in the household to every other respondent, and measuring the difference in their IDM scores.

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Generational differences

Our sampling method was also designed to allow for explorations of generational differences in the level of deprivation. On average, there is effectively no difference in the IDM score between those who are 35 or under (IDM of 78.79), those who are between 36 and 54 (IDM of 78.78), and those who are 55 and over (78.93). This too might be regarded as a slightly surprising result. One might have expected, for example, older people to be more deprived than middle aged or young adults. But it may be that the nature of deprivation, rather than its overall level, changes with age. For example, as indicated by the table below, older people are less likely to be well educated, but are also less likely to face violence. Because the IDM does not yet apply to children, we cannot explore whether differences exist between those under 18 and the older generations. The possibility of applying the measure to children will be discussed in the next chapter.

Dimension and IDM averages by age group

Numbers in parentheses are the number of respondents when less than the total sample. The total sample breakdown is shown in the hunger dimension. Note the small number of respondents over age 55. This is because many participants would not have answered these questions on account of their lack of a need for contraception.
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91. As noted more fully in chapter five, the survey incorporates a brief set of questions on disability to identify limitations in basic activity functioning. The questions were developed for use in census or similar multi-topic survey contexts where only brief information can be sought on any one topic. In contexts where women and men living with disability experience discrimination and stigma, simply asking respondents whether they have a disability may result in significant under-reporting of functional limitations.

People with disabilities

One final application of the IDM to differences amongst individuals is possible. Asking participants whether they have a disability or not generally leads to low reporting rates and mistakenly treats what is at least partially a matter of degree as a simple binary variable. Therefore, the IDM survey asked several questions that allowed for the categorisation of individuals as living with no disabilities, some disabilities, or significant disabilities. Using this categorisation, we find that people with no disabilities average 79.9, people with some disabilities average 77.07, and people with significant disabilities average 74.34. This confirms both that the survey is capable of revealing disparities based on living with disabilities and that there is a considerable difference in the level of deprivation between those who have no disabilities and those who live with significant disabilities.

Overall assessment

The pilot of the IDM in the Philippines was successful in several ways. The strategy of sampling multiple respondents within a household allowed for an exploration of the distribution of deprivation within a household. Each of the survey modules was able to produce interval scores of deprivation for respondents. Very few survey modules were not completed. The amount of time to complete a full interview (both the household and individual questionnaire) was about 90 minutes, and the individual survey alone could be done in under 60 minutes, a feasible length of time for development agencies, national statistics agencies, NGOs, civil society groups, and most importantly participants themselves.
The results provide useful, action-guiding information regarding deprivation in the Philippines. They show a) the dimensions in which shortfalls occur, b) the depth of those shortfalls and c) the geographic and social location of those shortfalls. With this dataset, further analysis can be conducted to explore correlations among shortfalls in various dimensions. If used in a longitudinal study, the results would allow for the exploration of changes of multidimensional deprivation over time.