Myanmar

EquityTool: Released September 11, 2018
The EquityTool has been updated based upon new source data. The original version is no longer active but is available upon request.

Previous version Released February 24, 2017

Source data: Myanmar DHS 2015-16

# of survey questions in full wealth index: 45
# of variables in full index: 141

# of survey questions in EquityTool: 15
# of variables in EquityTool: 16

Questions:

	Question	Option 1	Option 2	Option 3
Q1	Does your household have… a television?	Yes	No	
Q2	… a mobile telephone?	Yes	No	
Q3	… a refrigerator?	Yes	No	
Q4	… a table?	Yes	No	
Q5	… a chair?	Yes	No	
Q6	… a bed?	Yes	No	
Q7	… a cupboard?	Yes	No	
Q8	… an electric fan?	Yes	No	
Q9	… a computer?	Yes	No	

Q10	Does any member of your household own a watch?	Yes	No	
Q11	Does any member of your household have a bank account?	Yes	No	
Q12	What is the main source of drinking water for members of your household?	Bottled water	Other	
Q13	What is the main material of the floor of your dwelling?	Cement	Other	
Q14	What is the main material of the exterior walls of your dwelling?	Meshed bamboo	Other	
Q15	What type of fuel does your household mainly use for cooking?	Electricity	Wood	Other

Technical notes:

The standard simplification process was applied to achieve high agreement with the original wealth index. Kappa was greater than 0.75 for the national and urban indices. Details on the standard process can be found in this article. The data used to identify important variables comes from the factor weights released by ICF.

Level of agreement:

	National Population (n=12,500)	Urban only population (n=3,399)
% agreement	84.0%	84.1%
Kappa statistic	0.751	0.751

Respondents in the original dataset were divided into three groups for analysis – those in the 1st and 2nd quintiles (poorest 40%), those in the 3rd quintile, and those in the 4th and 5th quintiles (richest 40%). After calculating their wealth using the simplified index, they were again divided into the same three groups for analysis against the original data in the full DHS. Agreement between the original data and our simplified index is presented above.

What does this mean?

When shortening and simplifying the index to make it easier for programs to use to assess equity, it no longer matches the original index with 100% accuracy. At an aggregate level, this error is minimal, and this methodology was deemed acceptable for programmatic use by an expert panel. However, for any given individual, especially those already at a boundary

between two quintiles, the quintile the EquityTool assigns them to may differ to their quintile according to the original DHS wealth index.

The graph below illustrates the difference between the EquityTool generated index and the full DHS wealth index. Among all of those people (20% of the population) originally identified as being in the poorest quintile, approximately 76% are still identified as being in the poorest quintile when we use the simplified index. However, approximately 23% of people are now classified as being in Quintile 2. From a practical standpoint, all of these people are relatively poor. Yet, it is worthwhile to understand that the simplified index of 15 questions produces results that are not identical to using all 45 questions in the original survey.
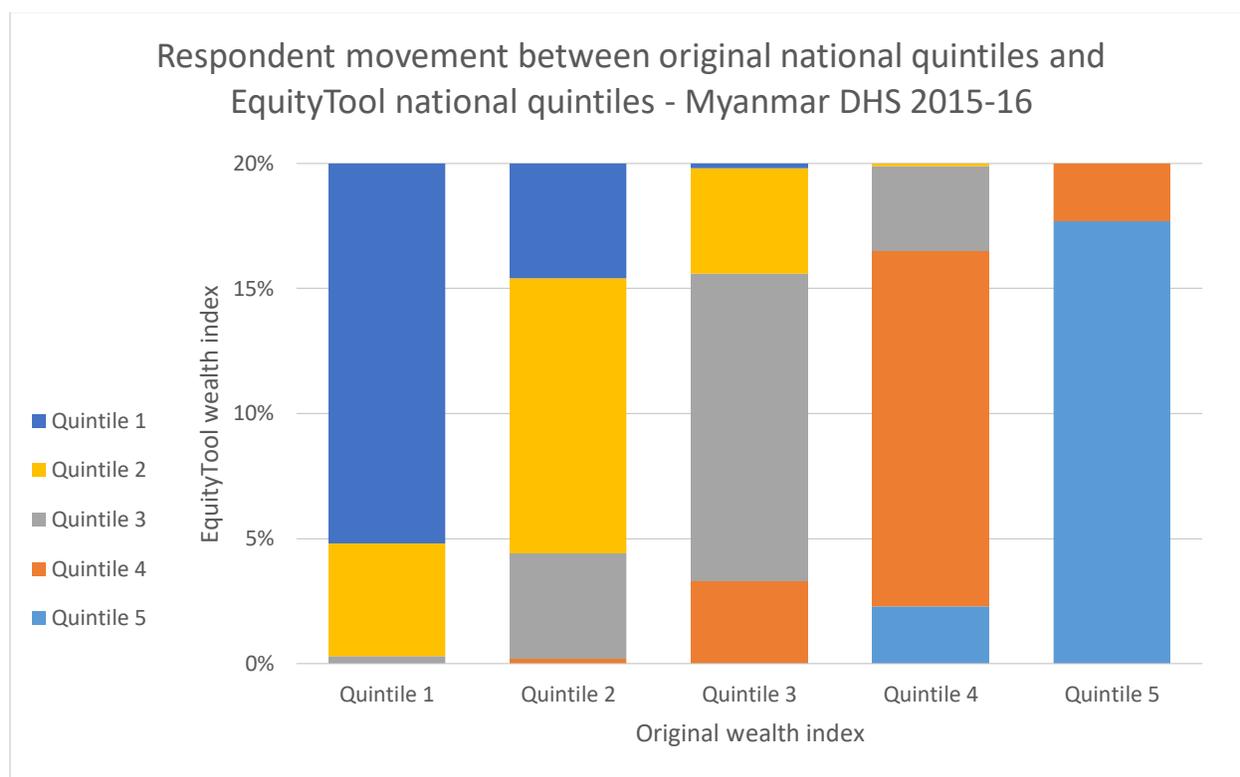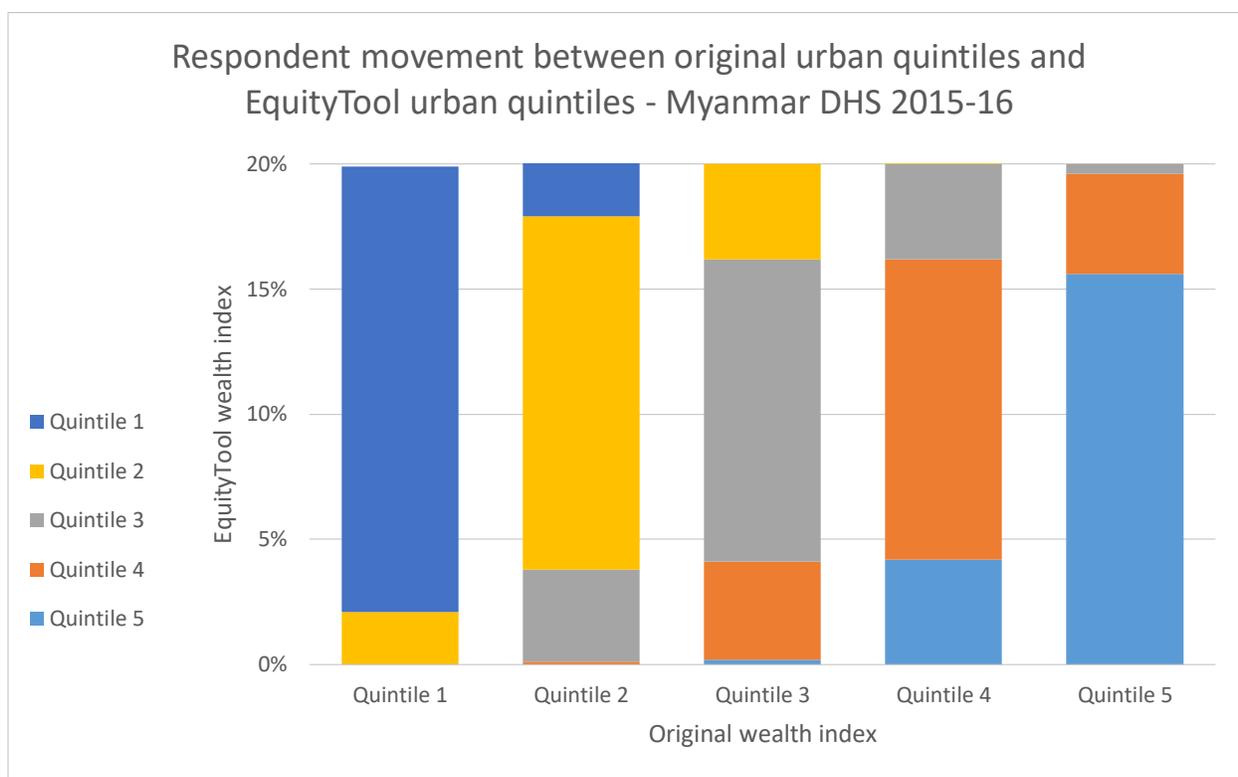

The following table provides the same information on the movement between national quintiles when using the EquityTool versus the original DHS wealth index:

		EquityTool National Quintiles					
		Quintile 1	Quintile 2	Quintile 3	Quintile 4	Quintile 5	Total
Original DHS National Quintiles	Quintile 1	15.20%	4.50%	0.30%	0.00%	0.00%	20%
	Quintile 2	4.60%	11.00%	4.20%	0.20%	0.00%	20%
	Quintile 3	0.20%	4.20%	12.30%	3.30%	0.00%	20%
	Quintile 4	0.00%	0.10%	3.40%	14.20%	2.30%	20%

Quintile 5	0.00%	0.00%	0.00%	2.30%	17.70%	20%
Total	20.00%	19.90%	20.10%	20.00%	20.00%	100%

The following graph provides information on the movement between urban quintiles when using the EquityTool versus the original DHS wealth index:

Respondent movement between original urban quintiles and EquityTool urban quintiles - Myanmar DHS 2015-16

The following table provides the same information on the movement between urban quintiles when using the EquityTool versus the original DHS wealth index:

		EquityTool Urban Quintiles					
		Quintile 1	Quintile 2	Quintile 3	Quintile 4	Quintile 5	Total
Original DHS Urban Quintiles	Quintile 1	17.80%	2.10%	0.00%	0.00%	0.00%	20%
	Quintile 2	2.20%	14.10%	3.70%	0.10%	0.00%	20%
	Quintile 3	0.00%	3.80%	12.10%	3.90%	0.20%	20%
	Quintile 4	0.00%	0.10%	3.80%	12.00%	4.20%	20%
	Quintile 5	0.00%	0.00%	0.40%	4.00%	15.60%	20%
	Total	20.00%	20.00%	20.00%	20.00%	20.00%	100%

Data interpretation considerations:

1. This tool provides information on relative wealth – 'ranking' respondents within the national or urban population. The most recent available data from the WorldBank indicates that 6.4% of people in Myanmar live below $1.90/day[1]. This information can be used to put relative wealth into context.
2. People who live in urban areas are more likely to be wealthy. In Myanmar, 55.6% of people living in urban areas are in the richest national quintile, compared to only 6.9% of those living in rural areas[2].
    a. If your population of interest is predominantly urban, we recommend you look at the urban results to understand how relatively wealthy or poor they are, in comparison to other urban dwellers.
    b. If the people you interviewed using the EquityTool live in rural areas, or a mix of urban and rural areas, we recommend using the national results to understand how relatively wealthy or poor they are, in comparison to the whole country.
3. Some districts in Myanmar are wealthier than others. It is important to understand the country context when interpreting your results.
4. In most cases, your population of interest is not expected to be equally distributed across the five wealth quintiles. For example, if your survey interviewed people exiting a shopping mall, you would probably expect most of them to be relatively wealthy.

Changes from the previous EquityTool

We released an EquityTool on February 24th 2017 which compared user data to a benchmark from 2014 census data. A new source survey, the DHS 2015 was recently released, and allows us to benchmark results to a more recent population. This is important, because wealth generally increases over time, and comparing your respondents to an old benchmark population will lead to over-estimating the relatively wealthy in your survey. The new EquityTool was generated using a broadly similar methodology as the previous version – which employed an urban/rural disaggregated analysis and was evaluated against the gold standard across all 5 quintiles, instead of the bottom 40%, middle 20%, and top 40%. In generating the new EquityTool, no attempt was made to account for the fact that a previous version existed. In other words, we did not explicitly try to keep the same questions or response options as the previous tool.

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[1] From povertydata.worldbank.org, reporting Poverty headcount ratio at $1.90/day at 2011 international prices.

[2] From the Myanmar DHS 2015-16 dataset household recode, available at http://dhsprogram.com/

For those who have not previously conducted an EquityTool based study in Myanmar, the remainder of this section is not particularly relevant. For those who have used the previous EquityTool, you may be interested to know how the two versions compare.

	Previous	Current
Source Data	Census 2014	DHS 2015-16
# of questions in EquityTool	14	15
# of questions in full wealth index	22	45
Kappa statistic (EquityTool vs full wealth Index)	National – 0.759 Urban – 0.759 (across 5 quintiles)	National – 0.751 Urban – 0.751 (across 3 groups)

Practical considerations for users of the previous EquityTool

Comparing the results of surveys that used the previous EquityTool against those that use the current EquityTool is difficult. It will not always be clear whether any difference is because of actual differences in the wealth level of the respondents or because the EquityTool has changed.

It is generally best to use the current version of the EquityTool, since it will give a more accurate quintile estimate. If you are currently collecting data with the previous tool, it is best to continue to use the previous tool. Note that if you have created a survey in the EquityTool web application using the previous EquityTool, that survey will continue to use the previous EquityTool.

If conducting a follow-up survey to a baseline that used the previous EquityTool, and the most important result is change from the baseline, it may be preferable to continue to use the previous EquityTool for comparability. If you need to do this, please contact us at equitytool@m4mgmt.org.

Technical comparison between the current and previous EquityTool
Unfortunately, differences in the questionnaire design for the two source datasets—the 2014 census and the 2015-16 DHS—limit the utility of more detailed technical comparisons between the current and previous EquityTool, so we do not offer them here.

Metrics for Management provides technical assistance services to those using the EquityTool, or wanting to collect data on the wealth of their program beneficiaries. Please contact equitytool@m4mgmt.org and we will assist you.