

Cambodia



EquityTool: Update released December 4, 2023

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 The original version is no longer active but is available upon request.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 November 1, 2016

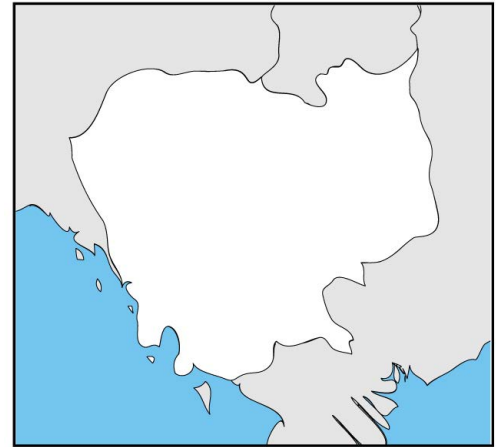
Source data: [Cambodia DHS 2021-22](#)

of survey questions in original wealth index: 32

of variables in original index: 144

of survey questions in EquityTool: 8

of variables in EquityTool: 11



Questions:

	Question	Option 1	Option 2	Option 3
Q1	Does your household have a refrigerator?	Yes	No	
Q2	Does your household have a television?	Yes	No	
Q3	Does any member of your household own a watch?	Yes	No	
Q4	Does any member of your household have an account in a bank or other financial institution?	Yes	No	
Q5	In your household, what type of cookstove is mainly used for cooking?	Three stone/open fire	Liquefied Petroleum Gas (LPG) / cooking gas stove	Other cookstove
Q6	What type of fuel or energy source is used for cooking?	Wood	Other fuel source	

Q7	What is the main material of your dwelling's exterior walls?	Wood planks / shingles	Cement	Other material
Q8	What is the main material of your dwelling's floor?	Wood planks	Ceramic tiles	Other floor material

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=20806)	Urban only population (n=7059)
% agreement	85.2%	84.7%
Kappa statistic	0.768	0.761

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.

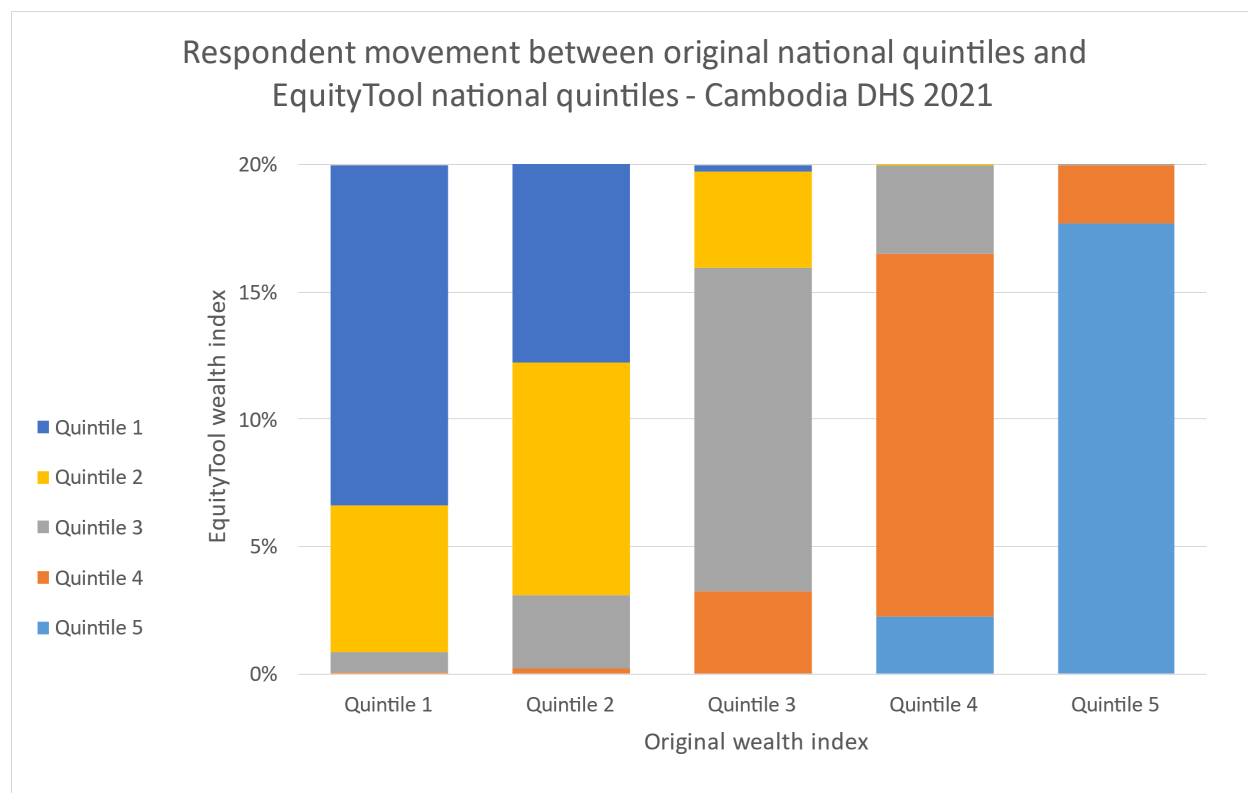
What does this mean?

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 67% are still identified as being in the poorest quintile when we use the simplified index. However, approximately 28.65% 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 8 questions produces results that are not identical to using all 32 questions in the original survey.

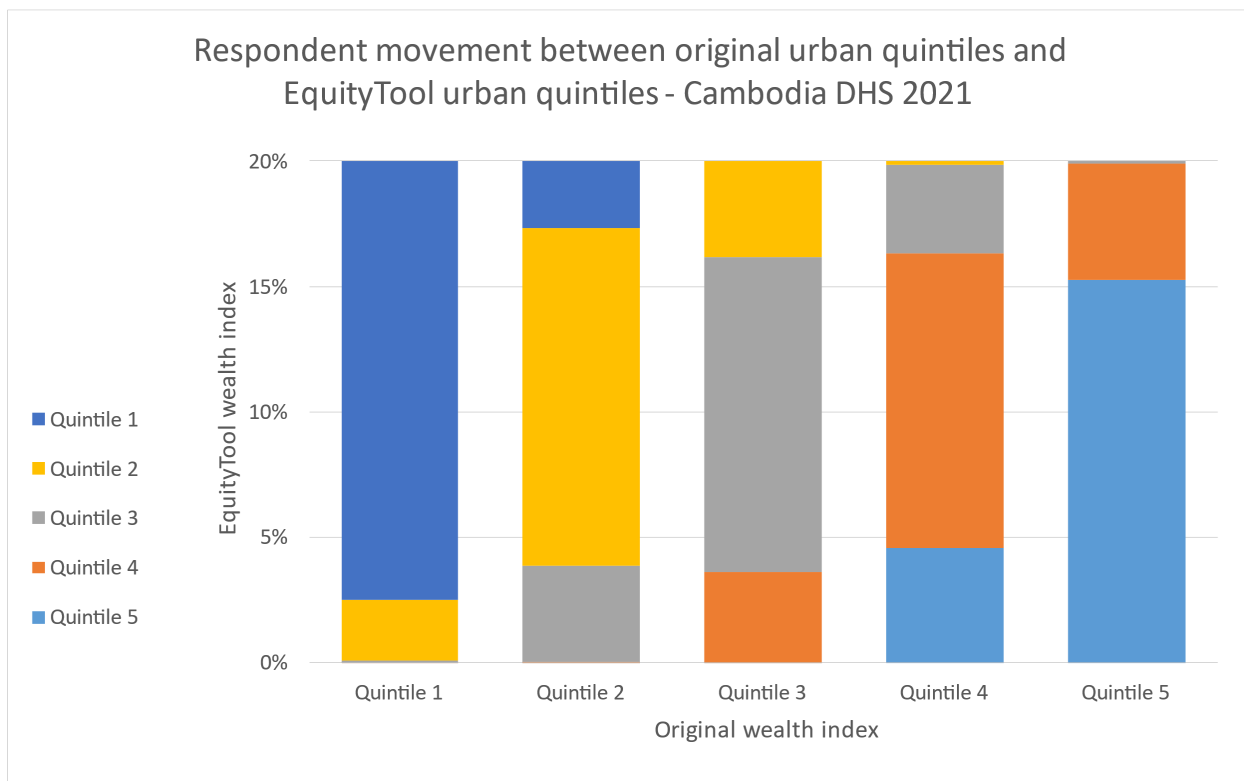


The following table provides the same information on the movement between national quintiles when using the EquityTool versus the original DHS wealth index:

		EquityTool National Quintiles					Total
		Quintile 1	Quintile 2	Quintile 3	Quintile 4	Quintile 5	
Original DHS National Quintiles	Quintile 1	13.40%	5.73%	0.82%	0.05%	0.00%	20%
	Quintile 2	7.75%	9.14%	2.90%	0.21%	0.00%	20%
	Quintile 3	0.25%	3.80%	12.70%	3.22%	0.02%	20%
	Quintile 4	0.00%	0.04%	3.47%	14.26%	2.23%	20%
	Quintile 5	0.00%	0.00%	0.00%	2.29%	17.71%	20%
	Total	21.40%	18.71%	19.91%	20.03%	19.96%	100%



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



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					Total
		Quintile 1	Quintile 2	Quintile 3	Quintile 4	Quintile 5	
Original DHS Urban Quintiles	Quintile 1	17.49%	2.42%	0.10%	0.00%	0.00%	20%
	Quintile 2	2.69%	13.45%	3.83%	0.04%	0.00%	20%
	Quintile 3	0.00%	3.83%	12.53%	3.63%	0.00%	20%
	Quintile 4	0.00%	0.15%	3.53%	11.71%	4.59%	20%
	Quintile 5	0.00%	0.00%	0.12%	4.63%	15.24%	20%
	Total	20.18%	19.85%	20.11%	20.01%	19.84%	100%

Changes from the previous EquityTool

We cannot directly compare the recent EquityTool (DHS 2021) with the old EquityTool (DHS 2014) due to the absence of certain variables in the recent DHS 2021 data. For instance, the



variable CD/DVD Player was not included in the recent DHS 2021 dataset. Additionally, certain variables were either consolidated or recoded into other variables in the current DHS 2021.

For those who have used the previous EquityTool, you may want to use the new EquityTool 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 the exact same methodology as the previous version, and 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. If you have any questions about appropriate use, please email support@equitytool.org

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 17.8% of people in Cambodia live below the national poverty line of \$2.70 per person per day¹. 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 Cambodia, 42% of people living in urban areas are in the richest national quintile, compared to only 6% of those living in rural areas².
 - 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 Cambodia 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.

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 support@equitytool.org and we will assist you.

¹ From Karamba, Wendy; Tong, Kimsun; Salcher, Isabelle. 2022. Cambodia Poverty Assessment: Toward a More Inclusive and Resilient Cambodia. © World Bank, Washington, DC. <http://hdl.handle.net/10986/38344> License: CC BY 3.0 IGO.”

² From the Cambodia DHS 2021 dataset household recode, available at <http://dhsprogram.com/>

