Poverty Rate(s) in Cambodia: A Roadmap
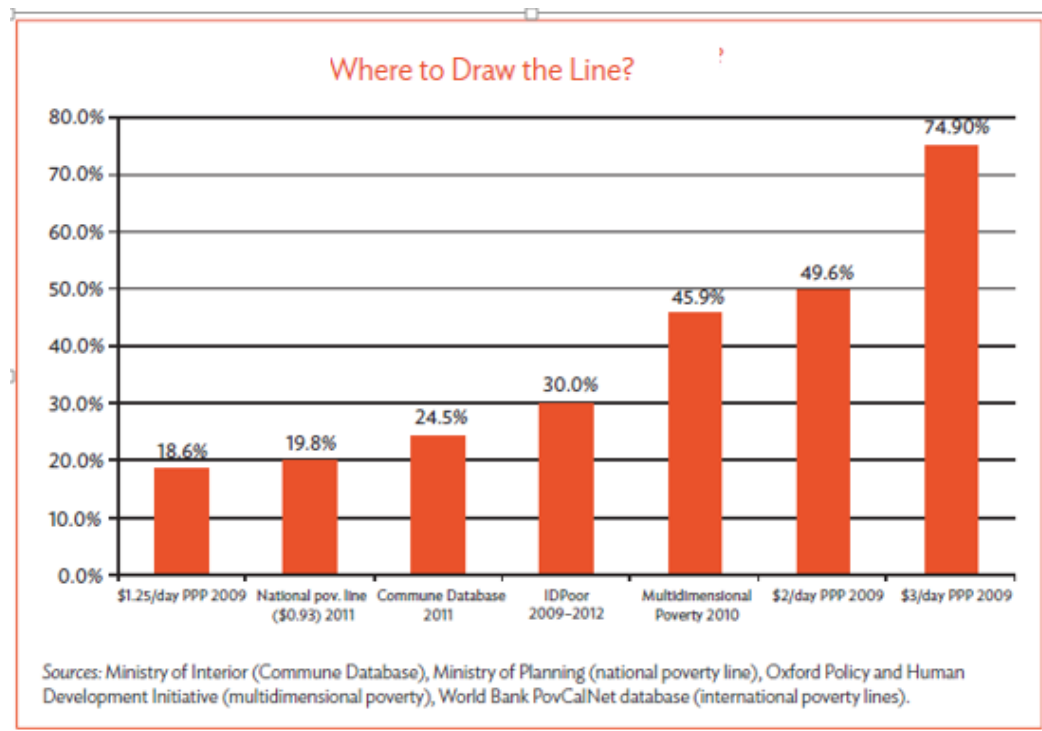
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INTRODUCTION

"Cambodia is a poor country." This is a statement commonly heard amongst both residents and travelers in Cambodia. And, to a large extent, it is true: the average income in Cambodia as of 2015 was $1070 (as measured by per capita Gross National Income) (World Bank, 2016). But what does "being poor" mean?

Identifying what is meant by "poverty" is a lot more complicated than it first appears. There are many different ways to measure poverty. One of the most common and well-known ways is to set a threshold, or poverty line, based on a certain level of income or consumption. If a person falls below this line, they are considered "poor." Adding all of these people together gives the "headcount poverty rate" for a country, which is commonly just called the "poverty rate." For example, if the poverty line is set at $5 per person per day, and there are 1 million people that fall below this income level in a country of 10 million people, the poverty rate would be 10%.

This method is fairly straightforward, but calculating the level of poverty under this method is highly dependent on the choices made to construct the line. And this is where it gets complicated, because there are different groups constructing different poverty lines. Moreover, other groups believe that using income or consumption to calculate a threshold is too simple and misses many of the non-income dimensions of poverty. These groups take a broader view of poverty, measuring people's well-being and standard of living in such areas as health, education, assets, and so on.

For this reason, one can find several different poverty rates for Cambodia (or any country). The differences are not primarily due to large differences in data or erroneous calculations, but instead, to different methods of calculating the poverty line or different methodologies of measuring poverty. For example, the chart below, which comes from an Asian Development Bank (ADB) report on poverty (2014, p.3), shows wildly different poverty rates for the period from 2009 to 2012. The rates in this chart range from a low of 18.6% to a high of 74.9% - a substantial difference, to say the least.

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Where to Draw the Line?

Sources: Ministry of Interior (Commune Database), Ministry of Planning (national poverty line), Oxford Policy and Human Development Initiative (multidimensional poverty), World Bank PovCalNet database (international poverty lines).

This paper seeks to explain the different poverty rates for Cambodia by elucidating the methodology behind the most commonly cited measures: first, the National Poverty Line calculated by the Cambodian Government's Ministry of Planning; second, the National and International Poverty Lines calculated by the World Bank; and third, a multidimensional measure of poverty calculated by the Oxford Poverty and Human Development Initiative. By understanding these poverty lines and their methodologies, one can get a much better sense of what poverty means and its true extent in Cambodia.

THE NATIONAL POVERTY LINE

Perhaps the most widely cited poverty rate is one based on the National Poverty Line. However, one source of confusion over poverty rates is that there are actually two groups which calculate a National Poverty Line, and it is not always clear which group is being cited. The two groups that calculate this line are the Ministry of Planning (MoP) of the Royal Government of Cambodia, and the World Bank. For example, the ADB's current website on "Poverty in Cambodia" says that the current national poverty rate is 13.5%, but it is not immediately clear which group's line they are using (ADB, 2016).

The MoP first constructed their line in 1997, with help from the World Bank, and it was widely used for many years, though it was updated periodically with new data. However, the MoP's methodology was extensively revised in 2013, and this methodology remains to the present day. First, the MoP uses consumption, not income, to calculate the poverty line. These two methods are similar, but most experts agree nowadays that consumption is preferable. The use of consumption is more accurate because, unlike income, it "accounts for savings usage, ownership of durable goods, access to credit and the use of anti-poverty programs. The most disadvantaged families also appear to report their consumption more accurately than income" (University of Chicago, 2012).

The poverty line is set based on the cost of a basket of essential goods that lower-income people actually consume in their daily lives. This basket consists of both food and non-food

items. The food items meet what the government considers to be a minimum standard of food consumption of 2200 calories per day. Of course, there are many different ways to construct a basket of food to attain that level of calories. Therefore, the government's decision to base their basket on food items that people "normally" use raises some questions, because these items, while providing sufficient calories, may not provide proper nutrition. The non-food items consist of clothes, travel, health, energy, rent, education, water, and some miscellaneous items.

The data about what people consume comes from the Cambodian Socio-Economic Surveys (CSES), which are done yearly; however, more complete versions are done every five or so years (the last one was completed in 2014, and the one before that, in 2009). The data is also broken up into three geographic areas: Phnom Penh, other urban areas, and rural areas. Given the different costs in each of these areas, each one has its own poverty line, but they are also blended together to form the National Poverty Line.
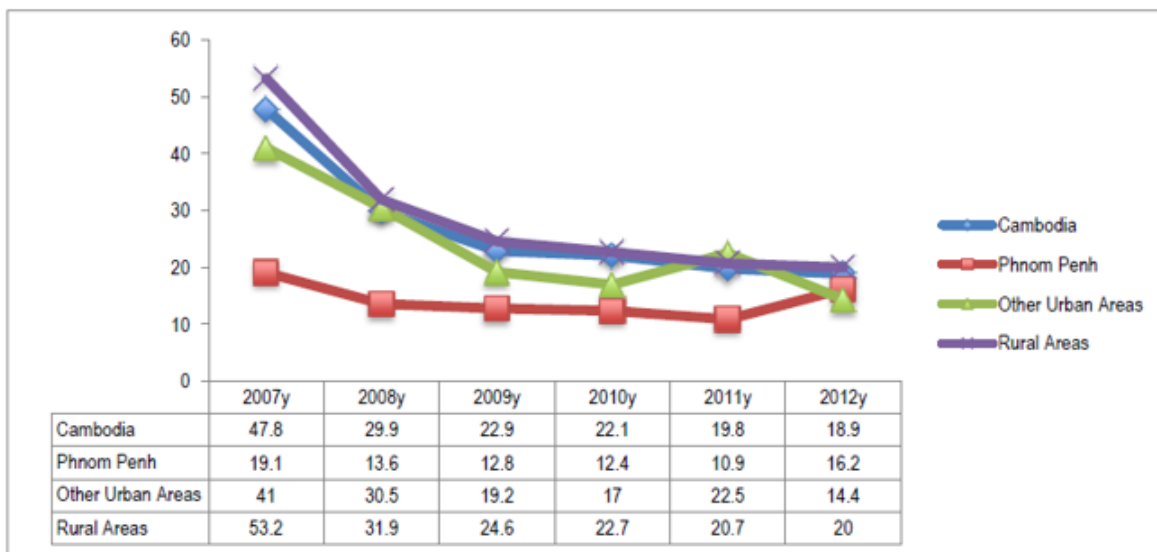
Explaining the technical differences between the MoP's old and new methodologies lies outside the purview of this paper, but suffice it to say that the differences are relatively minor. Therefore, it is illuminating to note (see the chart below) just how big of a difference that a small change in methodology can make to poverty rates.

: Comparing poverty rates using the old method of 1997 and the new method of 2009		
Region	Poverty Rate (%) (old method of 1997)	Poverty rate (%) (new method of 2009)
Phnom Penh	1.8	12.8
Other urban areas	6.9	19.3
Rural areas	17.0	24.6
Cambodia	14.6	22.9

(Source: Ministry of Planning, 2013)

The differences are striking. Using the same data, the old methodology (middle column) would have found a poverty rate 11% lower than the current methodology (right column) for Phnom Penh, and over 8% lower for the whole country. This shows why it is important to know which methodology is being used.

Using the current methodology, the following chart shows the trend in poverty rates for the three geographic areas and the country as a whole for 2007 to 2012. For 2012, the national poverty rate was 18.9%. Overall, the trend is very clear: dramatic decreases from 2007 to 2009, with slower reductions in the years since 2009. The one exception to this is Phnom Penh, in which poverty actually rose from 2011 to 2012.

Trends in Poverty Rates in Cambodia by Broad Strata, 2007-2012

	2007y	2008y	2009y	2010y	2011y	2012y
Cambodia	47.8	29.9	22.9	22.1	19.8	18.9
Phnom Penh	19.1	13.6	12.8	12.4	10.9	16.2
Other Urban Areas	41	30.5	19.2	17	22.5	14.4
Rural Areas	53.2	31.9	24.6	22.7	20.7	20

Source: Calculated from CSES

(Source: Ministry of Planning, 2014)

Around the same time that the MoP was updating its methodology for calculating the National Poverty Rate, the World Bank was doing the same. The World Bank's approach is similar to the MoP's: both are based on consumption, but some of the technical choices are different. Again, listing the technical differences between these two approaches is not the purpose of this paper; in general, though, the main difference is that food is a bigger component of the World Bank's line, while non-food items play a larger role in the MoP's line. Overall, however, the two lines show the same national trends – a steady reduction in poverty. The following chart compares the two group's lines.

Figure 4:   Comparing Government and World Bank Poverty Estimates, 2004–2011
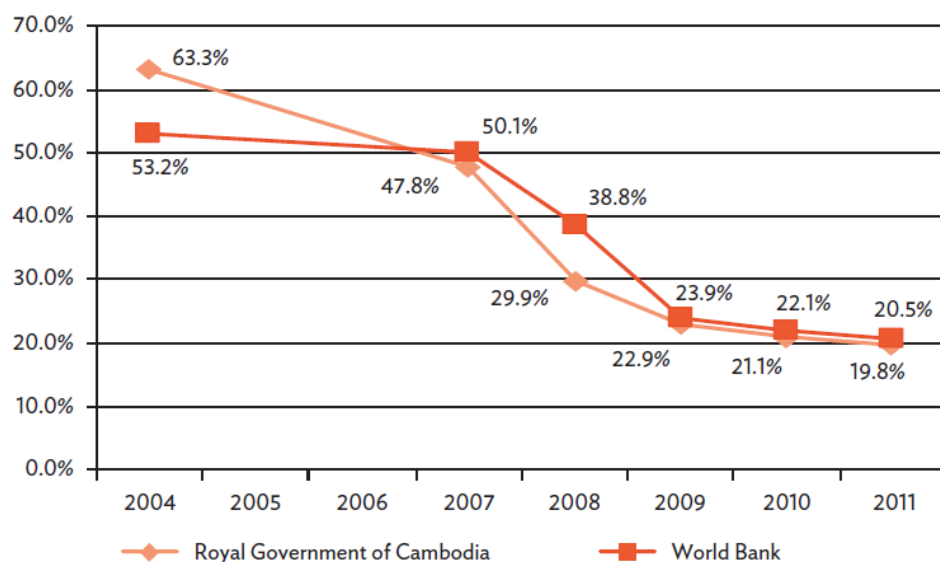
Source: World Bank. 2013. *Where Have All the Poor Gone? Cambodia Poverty Assessment 2013.* Washington, DC: World Bank.

Taking a closer look at the subregional poverty rates, however, shows some bigger differences between the two groups. In the following chart, using data from 2009 (because more recent data from the 2014 CSES has not yet been released by these groups), the

difference between the poverty rate for Phnom Penh for the World Bank and the MoP (which the chart calls "RGC," for Royal Government of Cambodia) is 8.5% - not insignificant!

	RGC Poverty Line (KR)	World Bank Poverty Line (KR)	Difference (KR)	RGC Poverty Incidence (%)	World Bank Poverty Incidence (%)	Difference (%)
Phnom Penh	6,347	5,326	(1,021)	12.8	4.3	(8.5)
Other Urban	4,352	4,273	(79)	19.0	12.7	(6.6)
Rural	3,503	3,914	+411	24.6	27.5	+2.9
Cambodia	3,871	4,081	210	22.9	23.9	+1.0

( ) = negative number, RGC = Royal Government of Cambodia.
Note: The average exchange rate for 2009 was $1 = KR4,183.

(Source: Asian Development Bank, 2014)

Perhaps the biggest lesson from the chart is that the poverty rate is highly sensitive to the threshold chosen. The two columns on the left of the chart show the poverty line expressed in Cambodian Riel – that is, the cost of the basket of goods consumed by one person for one day. The cost of the basket for the MoP differs by 1021 riel, or about 25 cents from the World Bank's basket – and yet, this leads to an 8.5% difference in poverty rates! The difference between the two groups' poverty line for "Other Urban Areas" is only 79 riel – about 2 cents – and, even more shocking, this small difference leads to a 6.6% gap in their poverty rates! Again, this reinforces that it is important when talking about poverty rates to know what the threshold is for a particular group and how it is chosen.

THE INTERNATIONAL POVERTY LINE

In addition to calculating a National Poverty Line, the World Bank also calculates an International Poverty Line (IPL). This line exists so that countries from all over the world can be compared using the same standard. The measure is constructed using poverty lines from 15 of the poorest countries in the world. The lines are converted to a common currency by using Purchasing Power Parity (PPP) exchange rates. The PPP exchange rates ensure that the same quantity of goods and services are priced equivalently across countries. That is, $1 PPP will buy the same (or equivalent) amount of goods in every country. Thus, using PPP puts each country's income and consumption data in globally-comparable terms.
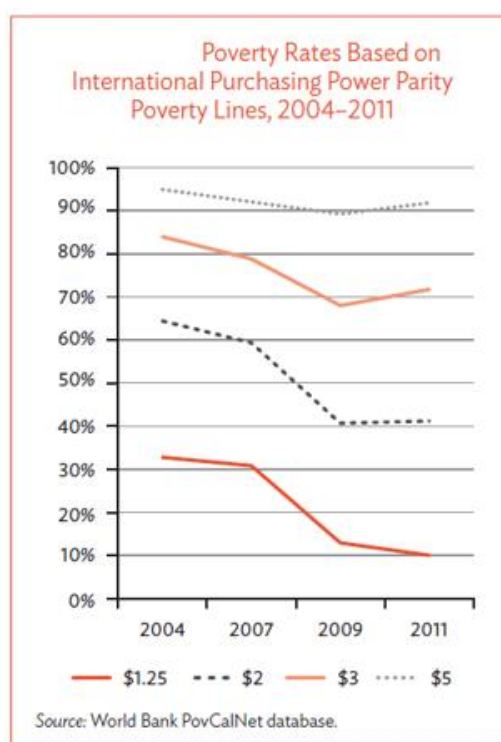
Just as with the National Poverty Line, there are multiple IPLs. However, unlike the National Poverty Line, the IPLs all come from the same source, the World Bank. The most commonly used IPL is the lowest one, which measures "extreme poverty." From 2008 to 2015, the IPL threshold for extreme poverty was $1.25 per day in PPP currency. In 2009, the PPP conversion rate was KR 2292 to PPP $1, which was 55% of the official exchange rate (KR 4139). In other words, in real terms, the IPL was set at 69 cents per day (ADB, 2014, p.8). Using this line, the poverty rate was only around 12% for that year.

In 2015, this IPL was updated to $1.90 per day PPP. In 2012, the last year for which there is publicly available data, only 2% of the country fell under this threshold (World Bank, 2017). Clearly, this is not a very useful statistic for assessing poverty in Cambodia. While

this low-level IPL is fine for providing information on those who are extremely poor, it is not appropriate or helpful as a tool for analysis or insights into the broader issue of poverty.

In addition to the "extreme poverty" IPL, there are other IPLs set at higher levels. From 2008 to 2015, for example, there were lines set at $2 per day, $3 per day, and $5 per day. The chart to the right shows these different lines for the years 2004 to 2011 (ADB, 2014, p.8). As the chart makes clear, the higher the poverty line, the higher the measured poverty rate.

The chart also shows that the trend line for poverty is not all downwards for the higher IPLs. After 2009, in fact, poverty started creeping back up. This is likely due to the fact that, after 2009, while the poverty rate continued to decline using the lower thresholds, such as the National Poverty lines or the $1.25 PPP per day line, people at slightly higher levels of consumption did not experience a similar outcome. In other words, many people escaped low levels of poverty, but not by much. They are stuck just above the lower poverty line.

Poverty Rates Based on International Purchasing Power Parity Poverty Lines, 2004–2011

— $1.25   - - - $2   — $3   ······ $5

Source: World Bank PovCalNet database.

THE MULTIDIMENSIONAL POVERTY LINE

Measuring consumption (or income) is not the only way to calculate a poverty rate. In fact, many people feel that focusing on these measures misses many aspects of poverty. For example, in Cambodia, even though the poverty rate, by most consumption measures, has been going down for several years, the rate of stunting, a sign of malnutrition in children, has remained steady or has even climbed in some years. According to the ADB (2014(, "Explaining why malnutrition persists in the face of dramatically reduced income poverty requires a multisector lens to examine not only the availability of nutritious food but also access to safe water and toilets, hygiene behavior, feeding practices, and so on" (p.18).

Perhaps the most commonly-used measure of multidimensional poverty is one compiled by the Oxford Poverty and Human Development Initiative (OPHI). Their measure, called the Multidimensional Poverty Index (MPI), focuses on three equally-weighted sectors – education, health, and standard of living – and ten indicators, such as years of schooling; number of malnourished children; number of children who have died; access to electricity, water, and sanitation; the type of floor and fuel used; and major assets owned by the household. A person is defined as poor if he or she is deprived of at least one-third of the indicators. The group also shows the "intensity" of poverty, which means the proportion of these indicators in which people are deprived (the more indicators they are deprived of, the more "intense" their poverty).

The chart below shows a comparison of the MPI to other unidimensional indicators based on consumption.

Comparative Poverty Measures
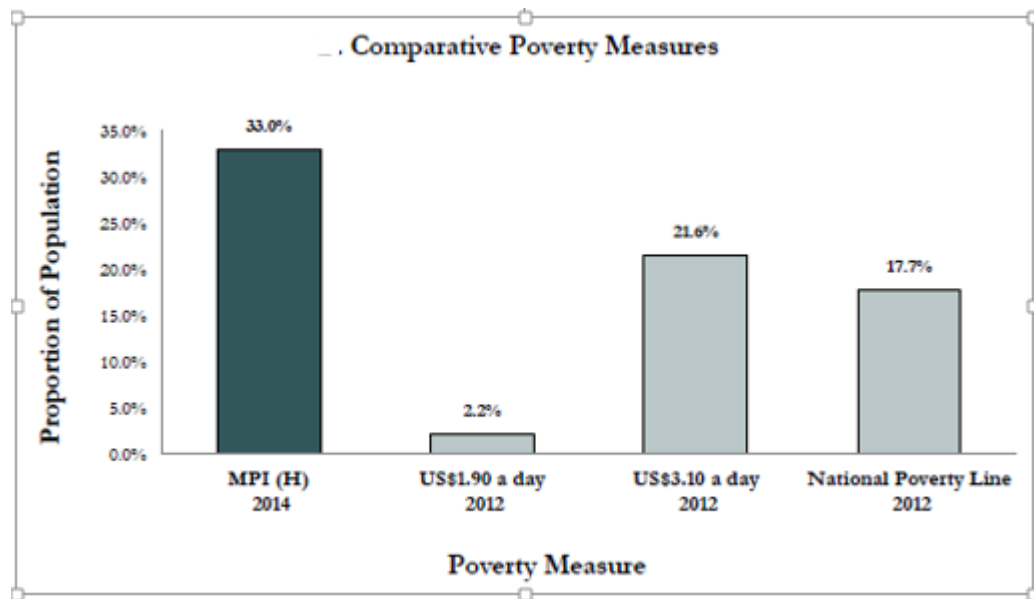
(Source: OPHI, 2016)

The poverty rate as measured by the MPI for 2014 is 33%, which is almost double the National Poverty Rate (as measured by the World Bank) for 2012. This shows that there can be large discrepancies in these measures. However, the basic trend is the same for the MPI as the other measures of poverty. The MPI poverty rate was 59.1% in 2005, so it has declined considerably over the last several years, just like the other poverty rates discussed above.

CONCLUSION

There are many different ways to measure poverty. This paper has reviewed some of the most common measures, which use a poverty threshold or line based on consumption to calculate a poverty rate, or which use multidimensional measures to measure many different aspects of poverty. However, because there are multiple groups who measure poverty and multiple methodologies to construct the poverty lines, there are many different poverty rates for a single country.

The goal of this paper was to elucidate the reasons behind these different lines and rates. No one method can be said to be "the best." Instead, each method can be useful. Still, it is important to know when discussing poverty which method is being used, and the details behind that method. Probably the most commonly-used measure is the National Poverty Rate. Therefore, it is especially important to know the methodology behind this rate and how it is constructed.

No matter which methodology is used, most of the data show the same general trend over the last several years: on a national level, poverty has been going down in Cambodia. It went down most rapidly from 2007 to 2009, a period which vaulted Cambodia into one of the best performers in poverty reduction worldwide. Since then, the rate of reduction has slowed, but it has still showed a downward trend for poverty measured by the National Poverty Line or other lines set at relatively low levels.

As mentioned, however, poverty as measured at slightly higher levels has not been decreasing in recent years. In fact, the vast majority of families who escaped poverty as measured by the National Poverty Line were only able to do so by a small margin. Thus,

around 8.1 million Cambodians – a majority of the country – are considered by the World Bank to be "near-poor." The "near-poor" are those who live on less than $2.30 per person per day, and they are highly vulnerable to even the slightest economic shocks. For example, the loss of just 1,200 riel (about $0.30) per day in income would throw an estimated three million Cambodians back into poverty, doubling the poverty rate (World Bank, 2014).

In sum, while Cambodia has done an effective job in lowering its poverty level as measured by its National Poverty Line, much work remains to be done. Millions of people live at levels just above this line, and even those who can afford more too often suffer from deprivations such as malnutrition and lack of access to clean water. Going forward, the multidimensional measures of poverty may be especially useful for getting an accurate picture of the challenges faced by the average Cambodian and what sorts of policies the government needs to pursue in order to address these challenges.

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