

# Poverty and Poverty Lines: Frequently Asked Questions

## What is poverty, and how is it measured?

Poverty is a condition of *unacceptable material deprivation*, according to a particular society's standards of what is or is not acceptable. Poverty is widely acknowledged to be a multi-dimensional concept, but most efforts to measure the extent and severity of poverty among a given population focus on one dimension – *income* poverty. Income poverty is measured in relation to an official poverty line – a level of income or consumption expenditures designated as the minimum needed by an individual or household to avoid poverty. Poverty lines are generally set by national governments, and used together with household survey data to measure the incidence of poverty among the population. Because they are social constructs, national poverty lines differ from one country to another. Countries with higher average incomes generally choose higher poverty lines, whereas low-income countries typically set their poverty lines at the estimated cost of physical subsistence: a bare-minimum diet, plus a modest addition for necessities other than food. Some countries set their poverty lines in terms of income, others in terms of expenditure; in either case, both cash and own-production (e.g., output from a family farm) are included.

Since 1990, the World Bank has tracked global poverty trends based on a common international poverty line – the so-called “\$1-a-day” line. The next FAQ examines this concept.

## Why isn't “\$1 per day” actually \$1/day? The international poverty line, old and new.

One of the two legislative definitions of the “very poor” is “individuals living on the equivalent of less than \$1 per day (as calculated using the purchasing power parity (PPP) exchange rate method).” This definition clearly refers to the international poverty line established by the World Bank and used to track the regional and global incidence of extreme poverty. Because this concept is so central to the application of the legislation, it's worth examining this concept in a bit more detail.

The international poverty line was first developed by World Bank researchers working on the 1990 *World Development Report (WDR)*, which focused on poverty. In order to estimate the share of the world's population living in extreme poverty, the WDR team examined the national poverty lines that low-income countries were themselves using to track poverty among their own citizens. To compare these national poverty lines, they first had to be converted to a common currency; for this conversion, the WDR team used Purchasing Power Parity (PPP) exchange rates, which are adjusted for differences in the purchasing power of currencies in domestic markets (more on PPP exchange rates below). Once this adjustment was made, it turned out that the poverty lines of the poorest countries spanned a range between \$275 and \$370 per year in PPP terms at 1985 prices. These two values were used as the basis for constructing the first solid estimates of the global incidence of extreme poverty in reference to a common poverty line. Because the higher of these two values was so close to \$1 per day, it soon became known as the “dollar a day line.”

In 2000, the World Bank significantly revised the international poverty line, in order to take advantage of new PPP data covering a much larger number of developing countries. The researchers set the new line at the median (middle value) among the national poverty lines of the 10 poorest countries. The resulting line was \$1.08 per day at 1993 PPP – that is, at purchasing power parity based on 1993 prices. Although the new line differs from the original version, it continues to be called the “dollar a day line,” and serves as the common international standard of extreme poverty.

## What are PPP exchange rates, and what difference do they make in calculating poverty lines?

Standard exchange rates measure the relative values of different currencies in relation to goods, services, and financial assets traded internationally. In contrast, PPP exchange rates measure the relative values (purchasing power) of currencies in *domestic* markets, including the cost of services – haircuts, housing, local transportation, etc. – that are not traded across international borders. Consumption PPPs – the variety used to convert the international poverty line into local currencies – measure the relative cost of a representative bundle of goods

and services in each country, weighted by the share of each item in overall consumer spending. Using PPP exchange rates to convert the international poverty line into local currencies helps ensure that the calculated values correspond to a similar standard of living in each country. The key word here is “helps,” because there is much room for error in this calculation – a topic explored below.

It is essential to notice that PPP exchange rates tend to be *very different* from standard market exchange rates, especially for countries at very different levels of real income. For example, at late-2006 prices, the market exchange rate to the US dollar was 1.3 times the PPP exchange rate in Albania, 2.3 times in Bolivia, 3.3 times in Uganda, and 5.2 times in Vietnam. That means that using market exchange rates to compute the local currency equivalent of the “\$1 a day line” produces values *completely different* than those resulting from using PPP exchange rates as required in the legislation. The main source of the difference is that many services tend to be relatively much cheaper in poor countries than in rich countries; because those services are not traded internationally, the difference in their relative cost affects PPP exchange rates but not market rates.

### **Can't I just use the official exchange rate to find the local currency equivalent of the “\$1-per-day line” for the country where my organization works?**

This would certainly be simpler, but is inconsistent with the language of the legislation, which specifically requires that the \$1-per-day line be “calculated using the purchasing power parity (PPP) exchange rate method.” And the choice makes an enormous difference in who gets counted as very poor. Official exchange rates for low-income countries typically exceed PPP exchange rates by several-fold, and would produce similarly higher estimates of the local-currency equivalent of the “\$1-per-day” extreme poverty line, if used to replace PPPs in the calculations. That would in turn lead to a much higher estimate of the share of the population living under that line.

An example may help. The most recent household survey data for Bangladesh (2000) imply that 36 percent of the population were living under the “\$1-per-day” extreme poverty line, properly calculated using PPP exchange rates. Bangladesh's official exchange rate for 2003 was about 2.7 times the PPP rate (50.25 vs. 18.7 taka/US\$1). If the official exchange rate were used in place of the PPP rate, almost all Bangladeshis – nearly 97 percent – would be counted as “very poor.” Clearly, using official exchange rates grossly distorts the estimated share of a country's citizens living in extreme poverty by international standards.

### **How can I determine the equivalent to the “\$1 a day” international poverty line in the country where my program operates?**

The key to computing these values is the 1993 consumption PPPs published by the World Bank at <http://iresearch.worldbank.org/PovCalNet/jsp/index.jsp>. To convert these values into the local-currency equivalent of the international poverty line at current prices, multiply the published PPP by 1.08, and then by the ratio of the current Consumer Price Index to its average value in 1993.

For the convenience of practitioners, a detailed explanation of this calculation, along with recent values for a wide range low- and middle-income countries, is contained in the Annex of [National and International Poverty Lines: An Overview](#) by Don Sillers. A downloadable [file](#) [Excel: 90KB] shows the data and calculations used to produce that Annex.

### **Do calculations based on the World Bank's published PPP exchange rates accurately identify the local currency equivalent of the \$1 a day line for my country?**

The World Bank's published PPP rates are the best currently available, but are subject to significant errors that reduce their reliability for estimating “\$1 a day” equivalents for many countries. The main problem is that many poor countries were not included in the comparative price surveys that form the basis of the current PPPs – the 1993 round of the International Comparison Program, or ICP. PPPs for those “missing” countries have instead been estimated using regression methods, which are known to be subject to large errors. Errors in country-specific PPPs cause similar errors when converting the international poverty line into local currency. A new round of the ICP, currently underway, substantially expands the range of countries from which price data are

Adapted from the Poverty Tools FAQ (Frequently Asked Questions) page at [www.povertytools.org/faq.htm](http://www.povertytools.org/faq.htm).

being collected. When the new PPPs are released in late 2007, this source of error will be dramatically reduced, providing a much clearer picture of the country-level incidence of extreme poverty and of trends in poverty over time.

A second issue with currently available PPPs is that they measure the relative cost of the consumption based on *national* consumption patterns, rather than the consumption patterns of the poor. As a result, calculations based on published PPPs may produce local-currency equivalents to the “\$1 a day line” that actually differ from one country to another. The size and pattern of this source of error is difficult – perhaps impossible – to determine without additional data. The new round of the ICP will report “poverty PPPs” based on the consumption patterns of the poorest households. Once released, those estimates should provide a stronger basis for translating the international poverty line into truly equivalent local values.

### **How does one determine the income level that corresponds to the cut-off point for the bottom 50% living below the national poverty line?**

This is not an easy question to answer. As USAID interprets the legislation, the key is to determine the share of the population living below the national poverty line, and then identify the level of income or expenditures that divides that group into two halves: (1) the “very poor” as defined by the legislation; and (2) the less poor half of those living below the national poverty line. For example, if the national poverty line is 80 pesos per month in per-capita expenditure, and the latest household survey data tell us that 28 percent of the national population is living on less than that amount, we need to find the monthly expenditure level below which 14 percent of the national population is living. Based on what we know about national income and expenditure distributions, we can be certain that the answer is *not* 40 pesos a month, or 50% of the national poverty line. But to be more specific than that, we need to have more specific data on the distribution of income or expenditures in the country in question. One source of such data is the World Bank Poverty Monitor site at <http://iresearch.worldbank.org/PovCalNet/jsp/index.jsp>, which provides the latest household survey data for many developing countries, along with an analytical tool (PovCal) that estimates the shape of a country's distribution based on those household survey data. If you know the percentage of the population living under the national poverty line, you can use that tool to search for two values: (1) the monthly expenditure (in U.S. dollars) associated with that percentage, and for (2) the monthly expenditure associated with a poverty incidence exactly half of the current value. The national poverty line can then be multiplied times ratio between those two values to identify the expenditure level under which the “poorest 50% of the national poor” live.