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The Millennium  
Development Goals and  
Poverty: Are We Counting  
the World's Poor Right?

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# **The Millennium Development Goals and Poverty: Are We Counting the World's Poor Right?**

**M. G. Quibria**

July 2003

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In September 2000, the United Nations held its “millennium summit”, at which 189 member states unanimously endorsed a vision of global development that makes eliminating poverty and sustaining development the principal focus of global development efforts. This vision, enshrined in the millennium development goals (MDGs), evolved out of the various conferences organized by the UN in the past decade. The MDGs have now come to constitute the internationally accepted framework for measuring and monitoring development progress.

The MDGs, comprising a formidable assortment of 8 goals, 18 targets, and 48 indicators, lay down measurable results not only for the developing countries but also for the developed countries and multilateral institutions that fund development efforts. The first seven goals seek to alleviate human deprivation in various forms and manifestations, whereas the eighth goal—global partnership for development—is concerned with the means to achieve the first seven goals. The UN Conference on Financing for Development in Monterrey in March 2002 was focused on addressing the issues related to the eighth goal of achieving greater international cooperation.

In the hierarchy of the MDGs, the crown jewel is the first target of the first goal. Which seeks to reduce to half, between 1990 to 2015, the proportion of people whose income is less than a dollar a day, a widely accepted yardstick to measure extreme poverty. However, estimating such poverty across developing countries and globally is by no means a simple exercise nor have such efforts led to unambiguous results. This brief provides a thumbnail sketch of the state of the art in global poverty estimates.

## **Two Different Sources of Global Poverty Numbers**

The traditional source of the global poverty data has been the World Bank. Since 1990, beginning with the publication of the *World Development Report 1990*, World Bank economist Martin Ravallion, along with his collaborators, has been releasing this data on the state of global poverty on a periodic basis. However, in recent years, a number of alternative poverty estimates have become available. Given greater transparency and the consequent easier accessibility of relevant global data from the World Bank, a number of non-World Bank economists have sought to come up with their own dollar-a-day estimates of individual countries and of the developing world. But what is disconcerting is that these poverty numbers by individual

economists diverge, indeed significantly, from those of the World Bank. These alternative sets of numbers suggest that the world has much less extreme poverty of the dollar-a-day type than the World Bank reports.

### **Why Do the Poverty Estimates Diverge?**

To understand the source of this divergence, it is worth retracing the steps to produce such estimates. The first step involves setting an international poverty line to develop comparable poverty lines for each developing country. This involves converting the dollar-a-day poverty line into national currencies by using the purchasing-power-parity (PPP) exchange rates. The second step involves using these national poverty lines to count the number of poor people in each country. The poor in each country are then added up to arrive at the total for all developing countries. Estimating the poor at the second step requires consumption expenditure data (or income, if such consumption data are not available) of families, which are usually obtained from household surveys. The precise mechanics at this stage involves: (i) estimating a Lorenz curve for the country from household surveys (the Lorenz curve is a graph that represents the cumulative proportion of income—or consumption—against the cumulative proportion of the population beginning with the lowest income—or consumption); (ii) assigning monetary values to the Lorenz curve, which requires data on mean consumption (or income); and then (iii) simply examining where the pre-defined poverty line is on the Lorenz curve and working out the percentage of the population that lies to the left of the poverty line.

In 1990, the World Bank provided the first set of such poverty numbers in its *World Development Report* for the developing countries as a whole and by region for 1985. These numbers were derived from a limited number of surveys, one each for 22 countries, and the rest were obtained from model-based extrapolations. However, the data situation has improved significantly over the years. The latest estimates, which have been reported in Chen and Ravallion (2001), are available for 1987, 1990, 1993, 1996, and 1998. These estimates are based on a much larger data set of about 300 surveys for about 90 countries. However, the poverty line used for these estimates was \$1.08 a day in constant 1993 PPP dollars. This is somewhat different from the original \$1 a day (more precisely \$31 a month) poverty line in constant 1985 PPP dollars used in the *World Development Report*

1990. The determination of the international poverty thresholds is not made arbitrarily: they are representative of the typical poverty lines of the low-income countries. Nevertheless, these poverty estimates, despite their deviations from the strict one-dollar mark, are conveniently referred to as dollar-a-day estimates for their rhetorical value.

The reason for rebasing poverty estimates from constant 1985 PPP dollars to constant 1993 PPP dollars was the availability of PPP data. The earlier PPP numbers were derived from the Penn World Tables that covered only 60 countries. The 1993 PPP data, which are derived from the International Comparison project, cover about 110 countries. However, this rebasing has had a devastating effect on poverty counts: It led to a radical reconfiguration of the global poverty landscape. For the same country, same year, and with the same survey data, this resulted in huge artificial changes in the poverty picture. The recalculation of the previous counts for 1993 at the new PPPs yielded a large increase in poverty in Sub-Saharan Africa from 39.1 to 49.7 percent; and a large decrease in poverty in Latin America from 23.5 to 15.3 percent, as well as in the Middle East and North Africa from 4.1 to 1.9 percent. Other regions also experienced changes, though much less dramatic.

In addition to the tumultuous swings in regional poverty numbers, there are other concerns about the World Bank estimates: they tend to exaggerate the state of global poverty as they reflect little perceptible impact of economic growth. During the period 1987-1999, while there was a 24 percent increase in per capita income in the developing world, this led to a measly 5 percent reduction in poverty. With rising population, it meant that the number of poor remained largely unchanged. According to the *World Development Report 2000*, there were 1.17 billion poor people in 1999 as compared to 1.18 billion in 1987. This relative lack of responsiveness of poverty to growth appears to be in contrast with the experiences in the earlier periods (Bourguignon and Morrison 2002). This has led many to wonder whether this low growth responsiveness is the outcome of increasing global inequality or the simple reflection of the poor quality of poverty estimates.

Partly out of these concerns, a number of economists have recently taken a close look at these estimates. These economists—who include Bhalla (2002); Sala-i-Martin (2002); Karshenas (2001, 2003); and Hasan, Quibria, and Kim (2003)—have come up with their respective poverty estimates. The purpose of the Hasan-Quibria-Kim work has not been to measure the magnitude of aggregate world

poverty, but to derive quantitative lessons about policies and institutions. Hence they do not report the global poverty numbers. Neither does Karshenas. The poverty estimates of Karshenas for individual least developed countries were reported in UNCTAD's *The Least Developed Countries Report 2002*. Although these studies may differ from one another in assumptions underlying the mechanics of their calculations, they have one thing in common with respect to the use of data. Rather than using the surveys, they all use the more readily available national accounts for mean consumption (or mean income) data. These alternative global poverty estimates—for example, 352 million by Sala-i-Martin or 650 million by Bhalla—are quite diverse but in all cases significantly lower than those of the World Bank. And if these alternative estimates are to be believed, then many Asian developing countries have achieved or are on the way to achieving the MDG in poverty.

The reason why these alternative poverty numbers are lower than those of the World Bank is that survey-based consumption numbers tend to be lower than those derived from national income accounts. Though it may not be true of all countries, it is certainly true of large countries like India. In India, which accounts for a significant share of the world's poor, the divergence between the national accounts data and the survey data has become larger over time. In the 1950s and 1960s, the divergence between the two was no more than 5 percent, but by 1998 it reached more than 50 percent. Part of the discrepancy may arise due to the way consumption is measured in national accounts. Private consumption expenditure in national accounts includes more than household expenditures, i.e., the consumption of nonhousehold private entities such as nonprofit organizations. Part of the discrepancy can also arise from measurement errors due to misreporting of consumption in surveys.

In this connection, two points are worth noting. First, despite claims to the contrary, the use of national accounts to estimate poverty is neither particularly bizarre nor novel. Such use has been made earlier by such esteemed authorities as the Indian Planning Commission and the Economic Commission for Latin America and the Caribbean to adjust survey data for poverty estimates. Indeed, it is difficult to make an a priori judgment, which provides a better estimate of the mean private consumption—the surveys or the national accounts. The main impetus for using the national accounts has been a widely shared perception that surveys tend to underestimate consumption. On the other hand, those who favor the surveys argue that national accounts data are not meant for measuring poverty.

Moreover, if the survey-based consumption measures are inaccurate, so too would the Lorenz curve estimates derived from the surveys. But then such Lorenz curve estimates are not available from the national accounts. Second, though all the alternative estimates use the national accounts, they are not exactly identical in every other detail. They have differed, often marginally, in terms of data coverage, definition, and mechanics of poverty calculation.

### **How to Address the Problems?**

While the problems underlying global poverty estimates are now fairly well recognized by academic scholars, the existence of drastically different global poverty numbers creates confusion for the policymakers who rely on such numbers to make decisions. To resolve the data inconsistency problems, Deaton (2002) has the following suggestions:

- (i) If two sources of data disagree, and as there is no basis to favor one over the other, then they should be combined to make a better estimate. This would mean a modest scaling up of the survey data by some weighted average of the national accounts statistics and the survey means, after correction for conceptual differences and coverage.
- (ii) Start a program of reconciliation between national accounts and survey data in a few countries, including India.

In addition, the PPP numbers have been the source of tremendous volatility for global poverty estimates. To eliminate this volatility, Deaton suggests that the dependence of the international poverty line on PPP exchange rates be eliminated. The current domestic poverty lines should be held fixed in real terms, and not be revised with changes in PPP exchange rates by updating of base years. Deaton further suggests that the current PPP poverty lines be subjected to detailed, local scrutiny, and be corrected in a way that would give them credence without a significant deviation from the \$1-a-day standard. The proposed method has of course its drawbacks. It would lead to growing deviations from an international standard and comparability. In addition, the detailed local judgment in fixing the local poverty threshold may not be as readily available as presumed.

Finally, as global poverty data has become a source of serious contention, many observers suggest that such data should be

produced by an outside agency, independent of the World Bank. In national governments, statistics are often produced by separate entities, independent of the control of the policymakers whose performance is judged by those data. This principle of organizational independence should also apply to the international arena.

### Concluding Remarks

Counting the world's poor is much more complex and contentious than it appears at first sight. The process is mired in many conceptual and statistical pitfalls. This has led some observers to argue that such efforts at global poverty counting be abandoned as these "global counts have little meaning and policy significance" (Srinivasan 2001). Such views notwithstanding, global poverty data can be a useful comparative tool to guide, monitor, and measure international development. However, pending a satisfactory resolution of the issues that bedevil the poverty estimates, the efforts of the global community to measure and monitor development progress would continue to suffer from concerns of dubious credibility.

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