

Is Poverty increasing in Bangladesh?

Reconciling national and global monitoring estimates*

Final report to UNDP-BDP Poverty Group, New York

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*This is Part I of a two part report evaluating the sources of inconsistency among poverty rates used in national MDG Reports and those reported as “global monitoring” estimates by the UN and World Bank. Part II of this report focuses on middle income and transition economies (Bulgaria, Chile, Costa Rica, El Salvador, Mexico, plus Honduras and Trinidad and Tobago). Both reports benefitted greatly from numerous meetings of the Poverty Group’s MDG Data Quality project, especially Nuzhat Ahmad, Nora Lustig, Selim Jahan, Craig Fagan, Emmanuel Letouze, Rosendo Ramirez. Nuzhat Ahmad commissioned this report and ably directed its preparation. Maria Davalos and Elitza Mileva provided excellent research assistance in preparing the Latin America and Eastern Europe tables. The views expressed in this report are, of course, solely those of the author, and should not be attributed to Poverty Group or other participants in the MDG data quality project.

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I. Bangladesh in the 1990s, Pro-poor growth, or not?

Is poverty increasing in Bangladesh? If it is, the chances of achieving Millennium Development Goal 1 in the seventy-one least developed countries (LDCs) are slim if only because nearly 20% of this LDC population resides Bangladesh. Yet these are precisely the nations and groups the MDGs are designed to focus resources on. The various international MDG Monitoring sites (see Box 1) report that between 1991 and 2000 Bangladesh's \$1/day poverty rate rose from 36% to 41%. But Bangladesh's own 2005 National MDG Report claims \$1/day poverty fell between 1991 and 2000 and the Bangladesh Bureau of Statistics claims poverty fell even faster between 2000 and 2005. National poverty estimates have Bangladesh on track to achieve MDG 1, but global monitoring agencies say poverty and inequality are rising. Who is correct? Raising the stakes in this debate, a consortium of respected development agencies recently singled out Bangladesh as a model of "pro-poor growth in the 1990s." But how can growth be pro-poor if poverty and inequality rose during this period?

This report explores the available evidence on poverty trends in Bangladesh. How can poverty estimates derived from the same survey yield disparate estimates of poverty trends? This is important not only because MDG 1 focuses on absolute poverty measures, but because multiple and disparate poverty estimates are found in many countries, not just Bangladesh. Some countries have no poverty data, others have more than one "official" poverty rate – both can frustrate policy maker's efforts to tie interventions to poverty outcomes. How can the quality of alternative poverty estimates be assessed? What are the procedures for reconciling conflicting estimates? How should national and international users of poverty data deal with inconsistent poverty rates? This is not a statistical detail: if Bangladesh's current growth boom excludes the poorest, new growth initiatives may be needed or targeted transfers may be necessary to make growth more inclusive. If on the other hand, its current growth trajectory is "pro-poor" as a recent World Bank-DFID case study claims,¹ Bangladesh should stay the course and other \$1/day poverty countries can learn from its success.

To preview our key findings, severe poverty does appear to be falling in Bangladesh through the 1990s and even faster after 2000 as economic growth accelerates. National poverty estimates use income estimates and living costs that more accurately reflect the purchasing power of Bangladesh's rural poor, which is where about 85% of Bangladesh's very poor population live. To value home food production to determine quantities (calories) of food consumed, household surveys collect data on both the quantity and prices of goods consumed by the poor. Food is a large share of poor household spending so survey price data cover most of the spending of the rural poor, the largest share of very poor population. The national Bangladesh Bureau of Statistics (BBS) poverty estimates use both prices and quantities derived from survey data. The Global Monitoring poverty estimates use survey expenditures but adjust them for inflation using the national Consumer Price Index (CPI), not because the CPI is superior to a survey based price index, but because it is available for all countries, where household survey prices data is not. The World Bank groups strives to use the same approach to estimating poverty in every country and the CPI is their standard price information. In Bangladesh urban consumer prices rose faster than prices in rural areas, so using the national CPI underestimates rural income growth, thereby reporting rising poverty in Bangladesh.

However, even poverty estimates based on better methods and more accurate data need to be validated ex post. It is relevant to note for example, that Bangladesh is on track in most of its education

¹ DFID-World Bank (2005) Pro-Poor Growth in the 1990s: Lessons and Insights from 14 Countries, World Bank, June, Washington D.C. (DFID is the United Kingdom's Department of International Development).

and health related MDGs as well (child mortality for example, is sensitive to increases in poverty). Poverty estimates can also be corroborated with changes in food spending patterns and other indicators such as the number of families living in brick houses. If falling poverty rates are not a statistical illusion, they should be reflected in a host of related changes in consumption patterns and living conditions (for cross country tests of this ex post evaluation approach, see McLeod, 2006).

Bangladesh's national poverty rates appear to be more accurate global monitoring estimates, but they are not nearly as well documented. Adjusting for household composition as well as location would also improve national poverty estimates (since the average household size is large in Bangladesh). Though the UN-Bangladesh 2005 MDG report has the basic story right, it overstates amount of \$1/day poverty by reporting \$1.40/day poverty rates instead, and not surprisingly, its explanation of poverty estimates is inadequate. Using just released 2005 poverty estimates from Bangladesh Bureau of Statistic, it appears that \$1/day range poverty fell from about 43% in 1991-92 to 26% in 2005, or about 3.5% annually. Poverty must fall about 2.75% annually to achieve Goal 1, so Bangladesh is well on its way to halving poverty.²

² This estimate combines CBN estimates published in the 2005 MDG report with estimates from the 2005 HEIS reported in July 1007. See Table 3 below for additional poverty measures over the same period.

Box 1: Who Monitors the MDGs?

The success of the Millennium Development Goals as development targets is reflected in the number of agencies and groups that now regularly post data on progress toward the 2015 targets (the new UN-Cisco-Google [MDG Monitor site](#) even reports the minutes left before 2015 arrives). This report refers mainly to three online data bases, all which share a largely common database of poverty related Goal 1 indicators. The “official United Nations site for the MDG indicators” is the [UN Statistics Division MDG Indicators](#) site (<http://mdgs.un.org>). It is maintained by a consortium of UN agencies— see Appendix C. The UNSD MDG database is easily accessible for country and regional queries. The UNSD site marks the global monitoring poverty indicators it reports with a “G” for global estimates, while the subset of national poverty rates that reported for Bangladesh are marked “CA” for “country adjusted.” (see Table 1). Discrepancies between “CA” national and “G” poverty estimates posted on the UNSD and World Bank sites for Bangladesh are the main subject of this report and a companion report on middle income countries. In November 2007 the new MDG [Monitor site](#) was launched on the initiative of the UNSD, the UNDP, UNICEF, DESA, UNICEF and OCHA with support by Google and Cisco systems. This site provides easy access to official MDG indicators; including Bangladesh poverty rates, with “Google earth” mapping capacity (see Appendix C for links).

The World Bank also maintains a [Global Data Monitoring](#) Information system which also has a “quick query “system for country data. The World Bank provides additional information and definitions of each of these variables in its WDI database. For the most part, UNSD poverty estimates are consistent with those prepared by the [World Bank’s Povcal.net group](#), a similar set of poverty estimates are published by World Bank’s World Development indicators (the WDI). Linked to and complementing these global monitoring sites are a long list of supporting agencies (see Appendix C Table C.2). In addition, regional agencies including CEPAL, ESCAP and the Asian Development Bank post MDG poverty indicators. This report uses ESCAP’s MDG progress classification: on track, off-track regressing, off-track slow and “early achiever” where halving poverty requires a 2.75% annual rate of decline in poverty to stay “on-track.”

Acknowledgement: This report focuses on discrepancies between national poverty rates and global monitoring agency estimates, but it is important to acknowledge and appreciate the tremendous progress that has been made in standardizing, documenting and making available international poverty estimates. . Most of the data sources and global monitoring web sites discussed in this report did not exist five years ago. UN agencies and the World Bank deserve enormous credit for their efforts to develop consistent and reliable poverty estimates for hundreds of countries. Only someone who has worked with household survey data can appreciate their efforts, without which focusing development policy and resources on the poorest groups would be much more difficult.

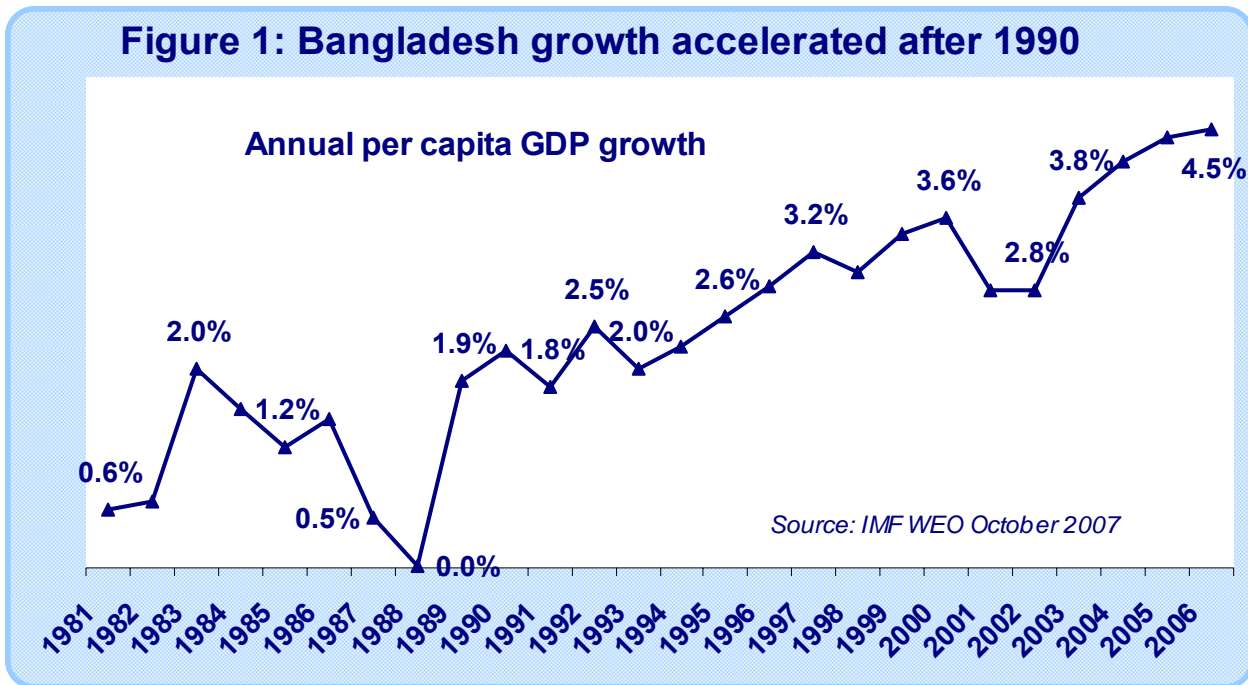
1.1 Summary of Key Policy Recommendations

The confusion generated by divergent poverty estimates for countries like Bangladesh can be reduced by making some modest changes in poverty reporting and documentation at the national, regional and international level:

1. Global monitoring agencies should report national poverty rates on equal footing with those of the World Bank Povcal.net group (provided national statistical agencies adequately document national poverty estimates—see #2). Bangladesh’s Bureau of Statistics uses more accurate income estimates and prepares poverty estimates on a timelier basis than global monitoring agencies. National poverty rates are reported on GMA web sites, but not in complete series or with adequate documentation.
2. National statistical authorities should carefully document national poverty lines and measures of household income and expenditures. National poverty lines should be converted to international \$PPP dollars to make them more comparable to GMA \$1/day and \$2/day poverty lines. An example of this sort of calculation is provided in Table 3 for Bangladesh’s national poverty lines.
3. Global poverty monitoring agencies need standardized and comparable poverty estimates to track regional progress, even when national estimates may be superior in method. However, global estimates can be improved with price indices more representative of the poor’s consumption basket, especially rural households (using the so-called “poverty PPPs” discussed in Appendix A).
4. National MDG reports should carefully document reported poverty rates and include a short appendix comparing all available poverty estimates for a given country and time period (as for example in Table 1 of this report). Reporting “selected” poverty estimates and ignoring other widely reported estimates undermines the credibility of the MDG policy and planning process.
5. Regional agencies such as ESCAP and CEPAL can (and do) undertake cooperative efforts to standardize and upgrade poverty estimates and household surveys in their region. Several examples of this sort of cooperative effort are discussed in Part II of this report.
6. Bangladesh’s Bureau of Statistics should post historical summaries of key household survey results (as it does now for 2005) along with the income estimates and poverty lines used to compute national poverty rates. Some of this information has been published in World Bank reports, but the BBS needs better electronic documentation of its national poverty estimates (key price deflators and poverty thresholds for example can now only be found in various World Bank working papers). Bangladesh’s poverty estimates have a history of methodological innovation: better documentation would make its poverty methods accessible to other countries and international agencies. Clear accessible documentation is absolutely essential for establishing and maintaining the credibility of Bangladesh poverty statistics. Summary results and key price deflators and regional breakdowns should be made available for the 1991-92, 2000 and 2005 household surveys at minimum. Perhaps this web page upgrade can be accomplished with UNSD cooperation, to the benefit of both groups.

I.2 Alternative Poverty Estimates for Bangladesh: An Overview

Following a growth surge that began in 1990 (Figure 1) Bangladesh is on track to meet most of its MDGs. A conspicuous exception appears to be the flagship goal of reducing \$1/day poverty by half. World Bank and UNSD data bases have \$1/day poverty rising over 2% annually during the 1990s, from 35% in 1991 to 41% in 2001.³ Table 1 summarizes these poverty headcount estimates for Bangladesh. The 2005 national MDG report prepared by the UN country team and the government of Bangladesh reports poverty fell from about 60% in 1991-92 to about 50% in 2000. In a Table in the reports introduction this poverty rate is reported to be the \$1/day rate, but the national high “cost of basic needs” or CBN poverty line is about \$1.40/day in 1993 purchasing power parity (PPP) prices (as shown in Table 3 below).



³ The UNSD and World Bank estimates are also used to track regional performance, so Bangladesh’s poor showing will affect MDG progress assessments for South Asia and Least Developed Countries as well.

Table 1: Alternative MDG Goal Poverty Estimates for Bangladesh

Bangladesh Goal 1 poverty rates by source:	Household Survey Year ^{6/}				Annual	On Track
	91-92	95-96	2000	2005	Rate of Change ^{3/}	to achieve Goal 1? **
1. UN (2005) MDGs: Bangladesh Progress Report^{2/}						
National Poverty rate, CBN Poverty Line % of pop.	58.8		49.8		-2.1%	slow
2. UNSD MDG Indicators Web site (August 2007)^{5/}						
Population share below \$1/day \$ppp 1993	35.9	28.6	41.3		1.8%	regressing
Population below national poverty line, total, %		51.0	49.8		-0.5%	slow
Urban Population below national poverty line, %		29.4	36.6		4.5%	regress
Rural Population below national poverty line, %		55.2	53.0		-0.8%	slow
3. World Bank (2007) MDG Query for Bangladesh^{6/}						
Poverty headcount \$1/day \$ppp (% of population)	35.9	28.6	41.3		1.8%	regressing
Poverty headcount ratio national poverty line		51.0	49.8		-0.2%	slow
4. World Bank Povcal Net (accessed August 2007)						
Poverty headcount \$1.08/day (PPP) (% of population)	33.7	32.9	41.3		2.6%	regressing
Poverty headcount \$2.16/day (PPP) (% of population)	85	82	84		-0.3%	slow
Average monthly income per capita (\$1993 PPP)	\$553	\$615	\$562		0.3%	
5. Bangladesh 2005 PRSP, BBS & WB-ADB papers						
National High CBN Poverty Line H (about \$1.45/day ppp)	58.8	51	49.8	40	-2.8%	on track
Urban High CBN Poverty Line H ^{4/}	44.9	29.4	36.6	28.4	-3.3%	on track
Rural High CBN Poverty Line H ^{4/}	61.2	55.2	53.0	43.8	-2.4%	on track
National Low CBN Poverty Line (about \$1.19/day PPP)	42.7	34.4	33.7	26	-3.7%	on track
Urban Low CBN Poverty Line H	23.3	13.7	20.1	14.6	-3.4%	on track
Rural Low CBN Poverty Line H	46.0	38.5	37.9	28.6	-3.5%	on track
6. World Bank-DFID (2005) Pro-Poor Growth in the 1990s						
Poverty Rate, Ravallion & Sen's 1984 poverty line	49.7		39.8		-2.7%	on track
Rural Poverty, Ravallion & Sen's 1984 poverty line	52.9		43.6		-2.4%	slow
Urban Poverty, Ravallion & Sen's 1984 poverty line	33.6		26.4		-3.0%	on track
Urban Gini Coefficient (Sen et. al (2004) Table 7 p. 69)	31.9		37.9		2.2%	
Rural Gini Coefficient (Sen et. al (2004) Table 7 p. 69)	25.5		29.7		1.9%	

**ESCAP's MDG progress classification system: early achiever; on track for 2015; off-track slow and off-track regressing.

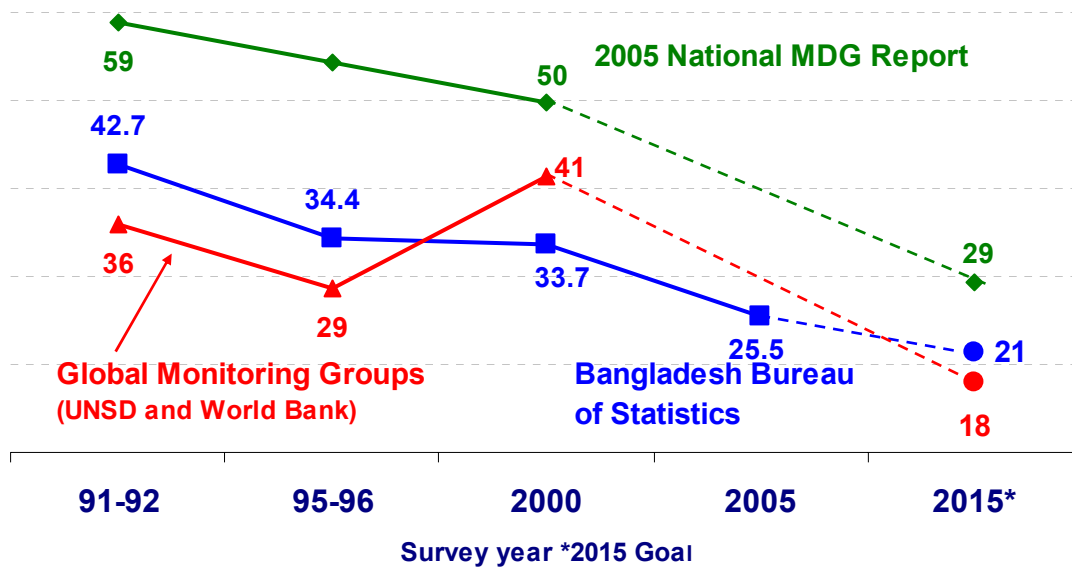
1/ All dollar amounts reported in 1993 \$PPP to make them comparable to the Povcal Net: the \$1/day poverty line of \$1.08 ppp.

2/ The 2005 Bangladesh MDG report (page 5) labels the high "cost of basic needs" or CBN poverty rate as \$1/day, but this in fact it is about \$1.40 per day while the lower CBN line is closer to \$1/day at \$1.15 \$ppp 1993. The higher CBN poverty line why CBN high poverty rate is about 50% in 2000, while the PCN \$1/day rate is 41% again suggesting a poverty line closer to \$1/day. Note that the MDG report does not report the 1995-96 poverty rate, perhaps because it is so close to the 2000 rate.

3/ These annual rates of change for each poverty rate computed for the intervals denoted by the over brackets.

4/ The July 27, 2007 HEIS "2005 Key Findings" release revises 2000 National poverty to 48.9 from , 35.2 and 52.3%, respectively. The 2000 poverty rates shown here are as reported in 2005 PRSP and background papers.

Figure 2: Bangladesh Poverty Trends



The MDG 1 global monitoring poverty data reported for Bangladesh by the World Bank and UNSD on their official MDG web sites, tell a different story. By these estimates \$1/day poverty rose from 36% to 41% between 1992 and 2000, rising almost 2% annually. Goal 1 includes poverty indicators for both the \$1/day global monitoring poverty rate and for national poverty lines. The Bangladesh national poverty estimates reported by the UNSD are shown in Table 1: these include 1995-96 and 2000 estimates identical to those widely reported in MDG and PRSP reports, but they leave out the crucial benchmark 1991-92 estimate. This benchmark sets the “falling poverty” trend for the decade, and is derived from the same household survey used to compute the global monitoring \$1/day rate of 36%. All three GMA web sites report the 1995-96 and 2000 national poverty estimates which suggest that poverty was virtually unchanged from 1995 to 2000 as poverty rose in urban but fell in rural areas (the standard error for the high CBN poverty rate is about 2%). Both national and \$1/day poverty rates reported on GMAs web sites suggest stagnant or rising poverty during the 1990s, in contrast to the “nearly on track” series reported in the Bangladesh MDG Report (see Figure 2).

Note the World Bank and the UNSD online MDG sites report \$1/day poverty rates that are very similar to World Bank’s Povcal Net site. Povcal Net is essentially a well documented online version of the database and software used to compute the “world” \$1/day rates cited in the *Global Monitoring Report* and the World Bank’s annual WDR. Generally then, Povcal.net and GMA poverty rates are identical (subject to periodic updates). In this particular case, the Povcal Net poverty rates for Bangladesh add to the puzzle by showing an even faster 3.6% annual rise in poverty during the 1990s (section 4 of Table 1). If these estimates are correct then Bangladesh growth in the 1990s was not pro-poor, as rising inequality actually increased the numbers of extremely poor.

Another source of national poverty estimates is the Bangladesh’s 2003 and 2005 interim and final PRSPs prepared by Bangladesh’s National Planning commission at the request of the IMF and World Bank. Table 1 shows these reports use the same CBN poverty measures as the 2005 UN-Bangladesh MDG report, but add measures of depth and severity of poverty (see Table 4 below). Some of these reports also leave out the 1995-96 survey data, but two excellent PRSP background papers prepared by the World Bank and Asian Development bank provide complete data for all survey years

in addition to descriptions of CBN and other Bangladesh poverty measures. These reports do not mention the global monitoring or Povcal Net poverty rates explicitly, but do set out to clearly explain and document Bangladesh's national estimates.

In July 2007 the Bangladesh Bureau of Statistics (BBS) released new estimates of the high and low line CBN poverty rates. As shown in Table 1, the high CBN poverty rate fell to 40% in 2005, down from almost 50% in 2000: some 10% of Bangladesh's population was lifted out of poverty during 1990s, the same feat was accomplish again in the first five years of the millennium.

The last set of poverty estimates for Bangladesh shown in Table 1 were published in the 2004 "Operationalizing Pro-Poor Growth" volume sponsored by the AFD, BMZ-GTZ, DFID and the World Bank. Bangladesh was chosen as one of 14 "pro-poor growth in the 1990s" case studies. But if poverty rose in Bangladesh during the 1990s growth was not very pro-poor. This study used a lower poverty line based on the 1983/84 household survey to estimate poverty in 1991-92 and 2000 (see Table 1). Using this lower poverty line, the poverty rate fell 2.74% a year, almost exactly the annual drop needed to reduce poverty by 50% in 25 years. The OPPG case study by Sen et al. (2004) points out that Bangladesh experienced a relatively sharp increase in inequality during the 1990s (see the last lines of Table 1).⁴ But growth reduced poverty despite rising inequality, a pattern observed not just in Bangladesh but in many of the 14 "pro-poor growth in the 1990s" countries.⁵

Adding to the rising poverty paradox is the relative strong growth performance of Bangladesh during this period, especially compared to the 1980s, as shown in Figure 1. This was also a period of substantial reduction in other MDG indicators including child mortality rates and malnutrition indicators (see Figure 3, one exception is the prevalence of wasting among children under 5, which got stuck in the 1990s). Primary school enrollment also increased rapidly in the 1990s.

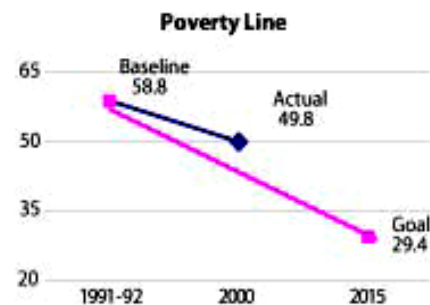
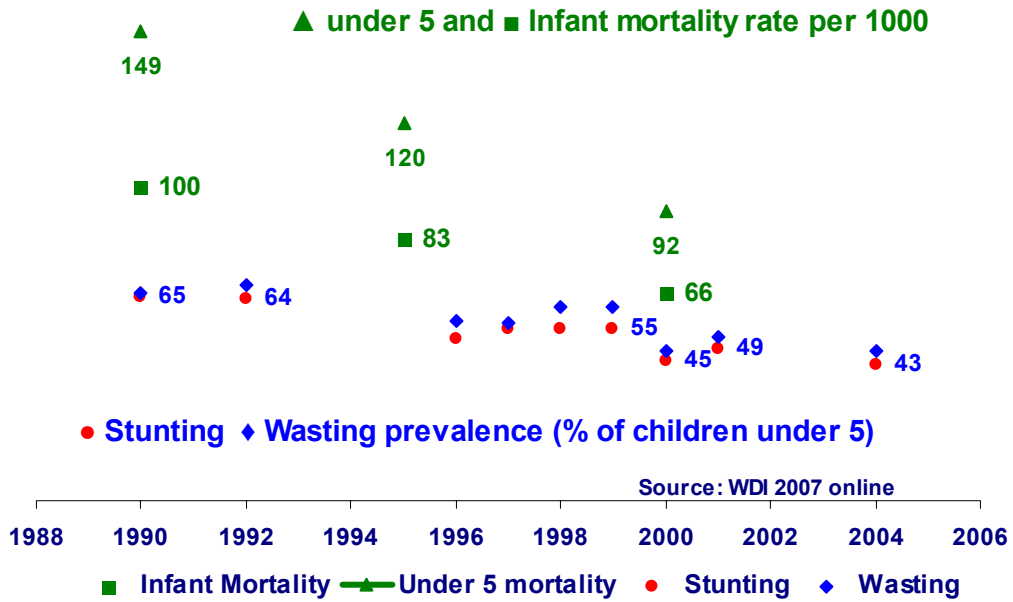


Figure 3A: Chart reproduced from the UN-BDG (2005) National MDG Report.

⁴ This study updates a paper by Ravallion and Sen (1996) that proposed modifications to CBN method that has become the benchmark for deriving national poverty lines at the BBS (discussed further below).

⁵ Of the 14 pro-poor growth case studies, only Vietnam had a more rapid growth rate and sharper rise in inequality than Bangladesh (see Figure 1.10). But simulations by Kahn and Sen (2004) and reproduced as Table 12 in Sen et al. (2004) suggest that had inequality not increased during the 1990s high CBN poverty in Bangladesh would have fallen by 13 percentage points or at about 3.4% annually instead of the 2.1-2.7% annual rate CBN poverty actually fell. Hence rising inequality, especially in rural areas, reduced the poverty reducing impact of economic growth by about 25% during the 1990s.

Figure 3 Bangladesh health and malnutrition indicators



Part II: Deconstructing Bangladesh Poverty Rates

Why are estimates of poverty from Bangladesh's Bureau of Statistics (BBS) so different from those reported by global monitoring agencies? Why don't the international agencies report the BBS-HES poverty series starting in 1991-92? The publication and omission of these disparate estimates raises two questions: one is how those concerned with MDG progress at the country level should report or acknowledge inconsistent poverty rates. The second and more important issue is which estimate provides a more accurate picture of poverty trends in Bangladesh. This section begins with a discussion of why poverty rates estimated by different agencies often differ. Once the source of the problem is identified, the next section discusses how more careful reporting of poverty rate estimates, might have led to a more timely resolution of these inconsistencies.

As it happens the primary source of disparate poverty estimates for Bangladesh is the different prices domestic and international agencies use to adjust spending for inflation and to poverty lines comparable over time. This is one dimension of a larger problem frequently encountered when survey derived estimates of spending and income growth are combined with national accounts data. National accounts-survey consistency is one of several "likely suspects" for generating inconsistent poverty measures. Working through a checklist of "usual suspects" helps clarify what went wrong in Bangladesh and what might cause similar discrepancies in other countries. This statistical forensics exercise can also help prepare final users of poverty data to sort through rather than ignore inconsistent poverty estimates for the same year and poverty line (should these be encountered).

Poverty measurement is not an exact science (this should be obvious by now). But in the last decade the learning curve has been steep and the quality of surveys and poverty calculations has improved enormously.⁶ It is important to keep in mind that those who prepare comparable "global monitoring" poverty estimates face fundamental different challenges from statisticians working at the national level. International agencies seek to construct comparable estimates of poverty across countries and over time using a bare minimum of data because in many cases this is all that is available. National statistical offices, on the other hand, seek to make the best possible use of their own national survey data, given the conditions and location of their poor populations and their own policy priorities (for example to reduce malnutrition or child mortality in rural areas, or to boost school attendance). To reach the lowest common denominator, international agencies make compromises national statistical offices need not make. These compromises can lead to the sorts of inconsistencies encountered in Bangladesh. As the quality of poverty estimates improves, national and international estimates should converge. In this case, Bangladesh statisticians are a bit ahead of the curve using more data and better poverty estimation techniques. This basic difference in estimation priorities often creates divergence between national poverty estimates and GMG "one approach fits all" methods designed to provide comparable poverty estimates for as many countries as possible.

Broadly speaking, four methodological choices can lead to inconsistent poverty estimates for the same country and similar poverty lines. All of these problems are at work in the case of Bangladesh during the 1990s, though the choice of price deflator remains our prime suspect. Here we list these common issues and then discuss in some detail how they are relevant to Bangladesh poverty rates.

⁶ It took almost fifty years for the UN and other international organizations to standardize national accounts. Since extensive estimates of national and international poverty rates date back only to the early 1970s, standards and methods remain less uniform. For an example of how far the standardization of surveys has come, see Appendix B.

1. **Survey and national account spending data can be combined in different ways.** This can be problematic because of the large and growing disparities between national accounts and survey based estimates of household spending or consumption. Most poverty estimates mix survey and national accounts data. The World Bank Povcal group for example adjusts survey expenditures with a national accounts based consumer price index. National statistics offices may mix survey and national accounts data in different ways resulting in different poverty estimates from the same survey for the same poverty line and for the same year.
2. **The type, quality and coverage of household surveys vary among countries.** Most Asian countries use expenditure surveys to gauge purchasing power, but most Latin American household surveys focus on income and earnings (many countries combine employment and income surveys for example). Since some surveys provide more information on household spending than others, national poverty rates may differ from those computed by global monitoring agencies.
3. **Variations in national poverty lines and how purchasing power is measured.** Is only private consumption counted? How is home production or public services and transfers accounted for?(public medical services for example). Also, clearly different poverty lines are relevant for different countries: the \$1/day poverty line is explicitly part of Goal 1, but it is not necessarily the best or only way to measure poverty in every country. As discussed in part II of this report, \$1/day poverty is virtually non-existent in many middle income countries, yet poverty remains a high national priority, perhaps based on a higher \$2/day poverty line for example.
4. **Countries may use region or household specific poverty lines:** Living costs vary within as well as between nations. Many countries use household equivalence scales to adjust for family size and different needs of women and children. Bangladesh and Povcal Net focus on individuals, but equivalence scales can be useful when households are large and heterogeneous. Povcal Net for example uses consumption \$PPP factors to adjust for differences in living costs across countries, but the same logic applies to regions and households of different sizes. These refinements in poverty measurement can also make it difficult to directly compare international global monitoring with domestically computed poverty rates. Bangladesh for example, uses regions specific income and price deflators (as opposed to the national CPI used by Povcal.net).

II. 1 Survey and national accounts spending data can be combined in different ways.

One source of inconsistency in estimated poverty rates is the growing deviation of survey from national accounts consumption estimates.⁷ The Bangladesh data illustrates this problem. Line 7 of Table 2 shows World Bank survey estimates put monthly consumption per person in 2000 at \$47 per capita in 1993 \$PPP, while the national accounts consumption estimates for the same year are \$114 per person (line 13).

More important World Bank survey estimates of consumption rose just 1.6% from 1991-92 to 2000, where national accounts estimates of consumption per person rose 26%. This is a large and troubling disparity. Despite this growing chasm, the subject of a book Bhalla (2003) and well known paper by Sala-i-Martin (2006), Deaton (2005) and Ravallion (2002, 2005) argue poverty analysts must rely on households surveys because that's where the poor are so to speak (and as it happens surveys are our only source of distributional data).

⁷ See Deaton, 2005 for a review of this problem in rich and poor countries, see also comments by Bourguignon (2005) and Ravallion (2005) published in the same *Review of Economics and Statistics* issue.

If it was possible to rely completely on survey estimates of living standards the problems encountered in Bangladesh might have been avoided. Instead most agencies find they must mix national accounts data with survey data. The problem is, there are many legitimate ways to combine these two data sources, resulting in many reasonable but different poverty estimates (see Székely et al. (2004) for an excellent discussion of this problem). The BBS household expenditure surveys collect price and quantity data for food consumption. This is obviously important information for poverty assessment since the poor households are likely to spend a large fraction of their incomes on food. In fact, Bangladesh is so poor the average household spends more than 50% of its income on food. In poor rural areas the average share spent on food and basic necessities approaches 80%, and not coincidentally the prices of these goods are tabulated for each household surveyed (even in Dhaka it was about 60% in 1991-92 – Murgai and Zaidi, 2004, Table A4 page 24).

Similarly, it is not easy to collect data on physical quantities: most food items are fairly easy to quantify (grams of rice for example) but quantity data is rarely collected for services or heterogeneous big ticket items. The quality of bicycles or haircuts for example would vary greatly between poor and non-poor households, so even numbers purchased would be less useful and overwhelming in detail for surveyors and surveyed alike. For non-food items then, the only available price indices are the national accounts based consumer price index, also available by province in Bangladesh.

Those preparing poverty rates for Bangladesh have two choices: they can use the price and quantity data reported in the household survey itself (the HEIS) or they can take total household expenditures and deflate them by the national or regional CPI. BBS researchers, in collaboration with the South Asia Division of the World Bank chose to use the price data reported in the survey where available and use the regional CPI to deflate non-food purchases (which vary by definition between high and low budget shares for the two CBN poverty lines, as discussed below). The results of these calculations are shown for the nation in Table 2 and by region in Table 3. Line 1 of Table 2 reports average consumption per person in local currency (Taka) as reported in the 1991-92 and 2000 HIES. In nominal terms spending per person rose from 550 to 876 Taka or about 59% (line 1) but over this period prices rose about 29%. This means real household purchasing power rose about 23% (line 2).

Because survey price data is not always available, the World Bank's Povcal Net procedure uses the national CPI to deflate nominal survey income. As shown in Table 1, the World Bank reports virtually the same mean consumption shown in line 4 of Table 2 but since Bangladesh's CPI rose 54% (as opposed to the 29% survey based estimate) all but 1.6% of the gain in purchasing power for poor households vanishes (lines 5 and 6 in Table 2).

Since average real spending was virtually unchanged by this calculation, the increase in poverty reported in Table 1 and by the World Bank and UNSD in their MDG data bases makes perfect sense. Population increased with stagnate incomes leading to a rise in the poverty rate (population growth is higher for poor households).

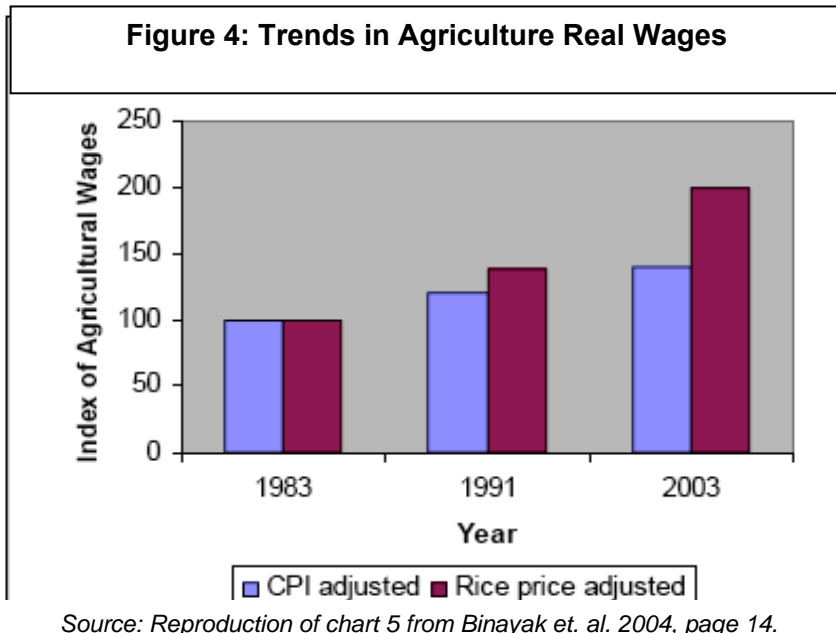
Table 2: Deconstructing Bangladesh Poverty Estimates

	1991-92	units	2000	Change	source
Bangladesh Bureau of Statistics (BBS):					
1. Nominal average PCE	550	taka	876	59%	1
2. Real PCE (constant taka)	550	real taka	677	23%	1
3. Implied BBS PCE deflator	100	index	129	29%	3
PCE Food share of the bottom 40%	73%	share	65%	-8%	1
World Bank Povcal Net:					
4. Mean survey PCE (Taka)	559	real taka	876	57%	2
5. WDI CPI deflator	100	index	154	54%	2
6. Povcal Net real PCE	559	real taka	567	1.6%	2
7. Povcal MSE \$PPP/month	\$46.1	\$ppp 1993	46.9	1.6%	2
8. Implied \$PPP exchange rate	12.1	taka/\$US	18.7		3
9. Market exchange rate	38	taka/\$US	52	38%	WDI
10. Purchasing power of a \$1	\$3.1		\$2.8		3
11. Purchasing power of \$1	\$3.6		\$4.2	17%	WDI
National Accounts Data:					
12. WDI PPP GDP per capita	\$1082	\$ppp 1993	\$1363	26%	WDI
13. \$PPP GDP/ month	\$90	\$ppp 1993	\$114	26%	WDI
14. Household FCE per capita	\$839	\$US 2000	\$883	5%	WDI
15. Household FCE % of GDP	84%	% of GDP	78%	-6%	WDI
16. PWT GDP per capita	\$1432	\$ppp 2000	\$1646	15%	PWT
16. PWT Consp as %GDP	86%		83%	-3%	PWT
17. PWT Consumption per capita	\$1237	\$ppp 2000	\$1364	10%	PWT

Notes: BBS: Bangladesh Bureau of Statistics PCE: Per capita expenditures
 FCE: household final consumption expenditure
 MSE: Mean survey income
 PPP: purchasing power parity, typically in 1993 U.S. prices
 PWT: Penn World Tables 6.2 (available on line, accessed 8-2007)
 WDI: World Development Indicators- on line (accessed 8-2007)

Sources: (1) World Bank-ADB (2002) Tables A1.4 and A1.5.
 (2) World Bank (2007) Povcal Net notes for Bangladesh, August 2007.
 (3) Author's calculations.

Given the main source of the discrepancy in poverty estimates, which estimate is more accurate? Both estimates receive some corroboration in national accounting aggregates. Overall per capita income rose 26% by World Bank estimates, but final house consumption spending per person rose only 5% (Table 2 line 12 and 14). A similar pattern is evident in the Penn World Table estimates where per capita GDP rises 15% from 1991-92 to 2000, but per capita consumption rises only 10%. Why did per capita consumption rise slower than per capita income: the consumption share of income fell from 84% to 78% by World Bank and from 86% to 83% in the PWT. But does this mean poor households decided to save more (or got by with less foreign savings)? This seems highly unlikely. More likely increased savings came in middle and higher income (urban) households and perhaps in the public sector. In fact, if poor households savings rates went up it would almost certainly be a sign of higher incomes (although a severe natural disaster might also raise savings as people rebuilt their houses for example—but the savings trend in Bangladesh is secular not episodic). This is another illustration of how national aggregates may not reflect conditions among the poorest households—only a natural disaster or a rapid rise in incomes would have led to increased savings among the poor.



Additional corroboration of rising living standard can be obtained by comparing average quantities and quality of foodstuffs consumed by households. Perhaps the most convincing evidence of falling poverty is the share of bottom 40% of persons spending on food fell from 73% to 65% in 2000.⁸ Engle's law tells us the food budget share falls as income rises (this law is so reliable the food budget share is sometimes used a poverty indicator). The falling budget share is accompanied by a shift to more expensive calories (meat, fruits and vegetables) and away from cheaper cereals. Unless incomes rise, households are unlike to make this sort of substitution. Another clear indication that living standards rose during the 1990s is that agricultural real wages rose in terms of rice purchasing power, as shown in Figure 4 (reproduced from Binayak et. al. , 2004 page 14). This underscores the importance of the price deflator weights: real agricultural wages rose modestly when deflated by the CPI, but almost doubled in rice

⁸ World Bank staff estimates based on HES data, see World Bank-ADB (2002) Table A1.5 page 96.

purchasing power. Agricultural workers in rural areas for example who spend a large proportion of income on rice found themselves with more to spend on other items. Landless workers were able to consume more without increasing their working hours. Clearly, CPI based real wage is less appropriate for higher income households whose rice budget share is small and who do not participate in the agricultural labor market, but they are also less likely to be \$1/day poor.

II. 2 Variation in the type, quality and coverage of household surveys:

Another common cause of inconsistent poverty estimates is the type, frequency and coverage of household survey used to construct poverty estimates. Most Asian countries use household expenditure surveys as does Bangladesh. Most Latin American countries rely on household income surveys. Surveys also differ in coverage and data collected. For example, Bangladesh households are asked to report quantities and prices, other surveys may just ask household members to remember what they spent in the last week or month (in India the recall period was changed recently, creating potential inconsistencies in reported expenditures compared to earlier surveys). To deal with this wide range of available household surveys the World Bank Povcal group uses a standard procedure to process all surveys:

1) Mean household income is computed in local currency and deflated into constant 1993 local currency purchasing power using the national CPI (even if price data is available from the expenditure survey, which often is not since it may not even be a consumer expenditure survey).

2) The \$1/day and \$2/day poverty line are computed using consumption purchasing power parity estimates derived by the World Bank but include additional documentation of each poverty rate computed by the Povcal Net web site.

3) A simple computer program takes distribution shares (typically deciles) and the mean income reported computed above and fits a reasonable looking Lorenz curve.

4) Poverty rates are computed using this Lorenz curve which gives the cumulative population share under any poverty line one cares to specify. Povcal Net users can vary the poverty line to explore the sensitivity of poverty estimates over a range of poverty lines. A wide range of poverty and inequality indicators are reported for each survey year, including the key monthly mean survey income as reported in line 7 of Table 2.

This standardized approach produces roughly comparable poverty estimates across countries with a bare minimum of data: the income shares, the CPI and the survey mean income along with the 1993 \$PPP conversion factor or exchange rate. However Povcal Net does not make use of all available data (food prices collected in Bangladesh HEIS surveys for example). Povcal Net is designed to produce a wide arrange of poverty estimates using a minimum of information, as a result much useful information for estimating poverty rates is left on table so to speak, available for others to use at the national level but not incorporated in the Povcal Net minimum data requirements.

The problem of price deflators that do not reflect the actual consumption basket of the poor has received considerable attention (see Rao (2003) and Appendix A for a discussion of “poverty PPPs” that is price indices tailored to typical the consumption basket of the poor, which is likely to be quite different than the consumption basket of a typical urban family—the weights used for most national CPI estimates). Overall, it is not clear how using better price deflators would affect poverty levels and

trends: in Bangladesh during the 1990s it mattered quite a lot, mainly because price increases captured by the national CPI were not reflected in prices of basic foodstuffs consumed in rural areas. A sharp increase in rice prices for example, as occurs in some countries during currency crises, could increase the cost of living for the poor at a greater rate than overall inflation.

The issue here is not whether prices of goods the poor consume increase more or less than the overall price level, in Bangladesh the survey contains information on the prices of the particular goods consumed by the poor. Should this information be used to estimate poverty rates? The answer is obviously yes if it is available. In this case the national authorities used this additional information regarding changes in the living standards of the poor, but the World Bank did not for practical reasons, not because they believed the urban CPI was a better measure of the cost of living for the rural poor in Bangladesh. Again, the issue is not whether to use national accounts or survey data, but that when they are available, prices from the surveys themselves should be used instead of the national typically urban CPI because they more accurately reflect the cost of living for poor households. The national BBS reflects this additional information, the World Bank Povcal Net estimates do not.

II. 3 National poverty lines and how consumption is measured varies across countries:

The designers of MDG monitoring system understood the definition of poverty may differ across countries: in fact even absolute poverty lines tend to rise with income over time and across countries, as Sen discusses in his classic article “Poor, relatively speaking”. This is one reason MDG indicators include both national and international \$1/day poverty lines. However, in the case of Bangladesh the system of reporting both poverty lines broke down as the MDG report misreports the national poverty line (the high CBN line) as the \$1/day poverty, while the UNSD and the World Bank MDG global monitoring sites omit the key 1991-92 national poverty rate (see Table 1 above).

In its global poverty monitoring role, the UNSD annotates “country produced” poverty estimates with a “C” meaning “the figure is the one produced and disseminated by the country (including data adjusted BY THE COUNTRY – *sic*- to meet international standards)” or with a “CA” which means “the figure is the one produced and provided by the country, but adjusted by the international agency for international comparability—that is to comply with internationally agreed standards, definitions and classifications (age group, ISCED, etc).”

The national poverty rates reproduced in the UNSD section of Table 1 above come with a country adjusted “CA” annotation. But comparing them to estimates reported by the BBS and PRSPs they do not appear to be adjusted (rural and urban high CBN estimates are identical). However, they may have been adjusted at some point, and then became the official BBS estimates. The only evident “adjustment” to the national CBN poverty rates is to not report the 1991-92 rates. This is hard to explain and no explanation is offered (the WDI online does not report it either). This is in an important omission because it eliminates a competing Goal 1 benchmark, the 1990 benchmark poverty rates. The 1995-96 and 2000 national “high CBN” poverty rates are reported without adjustment. There is no a priori reason to drop the BBS’s poverty estimates for 1991-92, in fact this also goes against the World Bank’s “equal footing” summarized by Ravallion (2002) in response to criticism that the \$1/day poverty methodology was arbitrary and too standardized,

“However, it should be noted that in the vast bulk of the Bank’s analytic and operational work on poverty, the “\$/day” line is ignored, and with good reason. When one works on poverty in a given country, or region, one naturally tries to use a definition of poverty appropriate to that setting. Most of the time, the Bank’s poverty analysts don’t need to know what the local poverty line is worth in international currency at purchasing power

parity. The main annual tabulation of the “\$/day” poverty numbers, the Bank’s World Development Indicators gives estimates based on national poverty lines side by side with the international lines, and has done so since these data were first published. Behind every one of these country numbers is a body of work as part of the Bank’s Country Poverty Assessments and (more recently for low-income countries) the country’s own Poverty Reduction Strategy Paper.” Ravallion (2002) page 2.

Note Ravallion’s argument that from a country point of view, national poverty estimates are often superior to the World Bank’s \$1/day estimates. Not only should national poverty rates be reported on “equal footing,” but “most of the time” \$1/day estimates can be safely ignored at the country level (for PRSPs and MDG reports for example). In defense of national poverty estimates Ravallion points out i) World Bank staff often helps prepare many of these national poverty estimates and that ii) the WDI reports national and international poverty rates “side by side,” on equal footing. World Bank staff did help in developing Bangladesh’s CBN poverty rates (see Sen and Ravallion, 1996). But the WDI does not report 1991-92 CBN national poverty rate “side by side” with national rates, though like the UNSD and WB MDG monitoring sites reports \$1 and \$2/day rates derived from the 1991-92 HES along with “unadjusted” CBN poverty rates for 1995-96 and 2000.

Since the international agencies do not report the 1991-92 CBN rates, perhaps there is some problem we are not aware of with the 1991-92 survey. This is possible, surveys do have problems: but no evidence of or rationale for this decision is provided. Povcal Net uses the 91-92 HES survey data to prepare its \$1/day estimates and as shown in Table 1, its mean survey incomes in Taka are almost identical to the BBS estimates. Also Povcal reports a Gini coefficient increase from .28 in 1991-92 to .33 in 2000, very similar to .272 to .32 BBS estimates reported in Table 2, page 7 of Murgai and Zaidi (2004). The only difference between the national estimate and international is the choice of poverty line, the high CBN line, and the price deflator used to adjust the poverty line over time.⁹

II. 4 Countries may use region or household specific poverty lines:

The Povcal Net methodology imposes a uniform \$1/day or \$2/day poverty line, but acknowledges the purchasing power of a dollar varies from country to country. For example, in 1993 a dollar bought \$3.12 worth of consumption goods in Bangladesh, but just \$1.48 in Mexico (see Appendix Table A-1). Defining poverty lines in \$PPP 1993 is an effort to adjust for regional variations in purchasing power: due to low wages and nontraded goods prices, the same dollar goes further in Bangladesh than it does in Mexico. However, the same logic applies to regions within a country, especially a large country like Bangladesh or India. Residents of rural Bangladesh find rents lower for example, than residents of Dhaka.

The same sort of logic applies to people living under different household arrangements. Children require fewer calories than adults for example to be well nourished and there are some economies of scale related to household size. The U.S. for example computes a separate poverty line for each household mix, two children with one adult has a different poverty line than a household with two adults and one child, however the more standard approach is to convert various households into adult equivalents before computing per capita spending or income, this in effect creates a different

⁹ Appendix A contains a brief description of the three HES surveys obtained directly from the World Bank Povcal Net web site. There were changes in the 1995-96 survey, including a new community questionnaire and a larger sample (7440 up from 5760 in 1991-92) but there is not indication the consumption spending estimates produced by the these survey are not comparable.

poverty line for each household. With the exception of China, India and Indonesia where both rural and urban poverty rates are reported Povcal Net does not incorporate region or household specific poverty rates. National poverty rates that consider these specific circumstances are likely to differ from Povcal Net estimates, but the direction of the bias is not clear.

World Bank and Bangladesh researchers have developed several interesting and innovative poverty measures, including a food poverty line known as the DCI (direct caloric intake). The preferred “cost of basic needs” or CBN method however, follows a tradition in poverty line construction that dates back to Richard Rowntree’s of the village of York in 1901. The first step is to define “a food bundle yielding 2,122 kcal per day per person was chosen comprising rice, wheat, pulses, milk, mustard oil, beef, fresh water fish, potato, other vegetables, sugar, and bananas.” This is done by region to account for variations in diet and food costs. The second step is to allow for nonfood spending following an approach proposed by Ravallion (1994). For the high CBN poverty line one finds surveyed households who purchase almost exactly the 2,122 calorie minimum food budget and computing their average spending on nonfood items. The low CBN poverty line is derived by finding households whose total spending equals the cost of minimum food bundle, and calculating what they spend on nonfood items (assuming this represents a bare minimum of nonfood spending). The third and final step is to add two non-food bundles to the minimum food cost resulting in the low and high CBN poverty line expenditures. Clearly this method can be applied equally well in different regions, yielding the poverty lines shown in Table 3 for 14 urban and rural areas of Bangladesh.

The rationale for this variation is that the cost of basic needs varies from state to state in Bangladesh, with the highest “low CBN” poverty line of \$1.40 in Chittagong urban area and the lowest \$1.10/day is in the rural Barishal Pathuakali region (see column 8 of Table 3). The high CBN poverty line for the Dhaka metropolitan area is \$1.76 per day (author’s estimates using regional poverty lines by region reported in World Bank-ADB, 2002).

While the rationale for the CBN method and for region specific poverty lines is clear, it does complicate comparisons with the single “dollar a day” poverty line used by global monitoring agencies. One problem is that Bangladesh has 14 poverty lines, not one. This problem can be overcome however, by simply taking a weighted average of each region’s poverty line where the weight is that region’s share of the poor. Column 1 of Table 3 provides a very rough distribution of the poor based on author’s estimates but actual data for all of the regions with 10% or more of the poor. This results in the weight average estimates of the two CBN poverty lines shown in the bottom row of Table 3 and in Table 1 above. We have also converted the Taka poverty lines to 1993 \$PPP dollars per day to make them comparable to the global monitoring estimates.

Table 3: Bangladesh CBN Poverty Lines by Region (Taka per person per month)

REGION	% of poor	Poverty lines (1991-92 Taka)				Price changes		1993 \$PPP poverty lines	
		1991-92		2000		1991-92 to 2000		poverty lines	
		Low	High	Low	High	Low	High	Low	High
CBN Poverty Lines by region	1	2	3	4	5	6	7	8	9
SMA Dhaka	4%	480	660	649	893	35%	35%	\$1.28	\$1.76
Other urban Dhaka	1%	399	482	521	629	31%	30%	\$1.06	\$1.29
Rural Dhaka	22%	425	512	548	659	29%	29%	\$1.13	\$1.37
Rural Faridpur Tangail Jamalpur	1%	432	472	540	591	25%	25%	\$1.15	\$1.26
SMA Chittagong	4%	523	722	702	971	34%	34%	\$1.40	\$1.93
Other urban Chittagong	1%	517	609	694	818	34%	34%	\$1.38	\$1.62
Rural Sylhet Comilla	2%	432	558	572	738	32%	32%	\$1.15	\$1.49
Rural Noakhali Chittagong	21%	438	541	582	719	33%	33%	\$1.17	\$1.44
Urban Khulna	2%	482	635	609	803	26%	26%	\$1.29	\$1.69
Rural Barishal Pathuakali	2%	413	467	546	616	32%	32%	\$1.10	\$1.25
Rural Khulna Jessore Kushtia	10%	420	497	527	624	25%	26%	\$1.12	\$1.33
Urban Rajshahi	2%	446	582	557	726	25%	25%	\$1.19	\$1.55
Rural Rajshahi Pabna	26%	459	540	586	690	28%	28%	\$1.22	\$1.44
Rural Bogra Rangpur Dinajpur	2%	426	487	510	582	20%	20%	\$1.14	\$1.30
Weighted Average all Regions	100%	444	542	575	702	29%	29%	\$1.19	\$1.45
Maximum		523	722	702	971	35%	35%	\$1.40	\$1.93
Minimum		399	467	510	582	20%	20%	\$1.06	\$1.25
Coefficient of Variation ^{1/}		9%	14%	11%	17%	16%	16%	9%	14%

Source: Table A.5 in Murgai and Zaidi (2004) and author's calculations.

The second problem with the CBN poverty line is that by making the nonfood purchase component of the poverty line endogenous (it depends on what household near the food line actually purchase) the poverty line itself changes in real terms over time. One can rationalize this by pointing out that it reflects the real changes in poor household spending over time, but it violates a fundamental premise of absolute poverty measurement over time. To cope with this problem, various author's have "frozen" the budget shares in some initial year and computed what might be call hybrid CBN measures over time. Sen et al. (2004) use the 1983-84 budget shares, the various PRSP and MDG reports use the 1991-92 budget shares. Hence it is possible to have two different sets of high and low CBN poverty measures, only because they use different base years. Whether or not it is better to use early or late budget shares depends on the purpose at hand and raises similar issues to those posed by "fixed weight" price indices. In terms of assessing progress toward the Millennium Development Goals, the answer is obvious: the most appropriate non-food weights are those of the 1991-92 survey, the poverty rate that is closest to 1990 benchmark year (here we also assume the 1991-92 survey is better than the 1988-89 survey, which it is).

Slow Progress and rising Inequality

The 2005 Cost of Basic Needs (CBN) poverty rates published by the BBS as preliminary results for the 2005 HIES survey show a uniform and substantial drop in poverty. Using the low CBN poverty line, the one closest to the \$1/day international standard (as discussed above, see Table 3). As shown in Table 4, not only did the poverty rate drop from 34% to 25%, but measures of the depth of poverty and the severity of poverty improved sharply as well. Rural poverty indicators improved at a slightly slower rate than urban, but the share of population in urban areas increased as well. Since urban poverty rates are lower, this also contributed to the decline in poverty.

Inequality has risen steadily in Bangladesh since the 1980s. The national Gini coefficient rose from a relatively low .28 in 1991-92 to over .33 in 2000 (up from .26 in 1983-84). The share of the bottom 20% (an MDG goal 1 indicator) fell from 9.4% in 1991-92 to 8.7% in 2000, while the share of the top 20% rose from 38% to over 42%, raising the inequality ratio from 4.1 to 4.9 as show in lines 22-25 of Table 4. While inequality is rising, it remains low relative to most other least developed countries. There is some evidence inequality fell from 2000 to 2005, though few summary or share measures are available. The 2005 HIES summary reports faster income growth for the bottom 5% of households compared to the top 5%, shrinking the inequality ratio for these two groups from 24 to 21 (see lines 26-28 in Table 4). To the extent that rural households are larger, however, this gap may be understated (a household equivalence scale would help here as well).

Table 4 compares 2005 with 2000 providing a mixed picture of progress, especially with respect to the share of consumption spending on food, which remained virtually unchanged. In fact, calorie consumption per household member remained unchanged (see line 9 of Table 4). The average household size fell from 5.2 to 4.9 in 2005, suggesting fewer children per household, so in terms of adult equivalents, caloric intake may have fallen. This is consistent with limited improvement in the FEI (food energy intake) and DCI (direct calorie intake) poverty measures shown on lines 8 and 11 which show limited improvement. These measures can overstate poverty when there are large differences between rural and urban consumption patterns, however, it is not clear how this would affect the trend in poverty. Note that the quality of diet has improved somewhat, with the share of cereals in total caloric intake declining and the share of meat, milk and fish rising, generally a sign of rising incomes.

Finally, a number of indicators associated with overall quality of life improved substantially from 2000 to 2005 as did the number of households with access to credit. The share of houses with wood or brick walls rose from 38% to 55%, while households with electricity and sanitary toilets rose from about 30% to 44% and 52% over the same period (see lines 18-21 of Table 4). These suggest a combination of higher incomes (investment) and perhaps community or public investment also contributed to rising living standards during this period. Another sign of improved living standards is reduced morbidity among the poor (though this could also reflect higher public health spending). The share of persons reporting they were sick the previous month fell, see line 9 of Table 4.

The preliminary results of the 2005 household survey should be interpreted with caution. Not all indicators suggest robust improvement in the lives of the poor, but a wide range of indicators suggest living conditions improved from 2000 to 2005. An important limitation of the data made available at the BBS web site so far, is the lack of vital price deflators and updated poverty lines. It is not good practice to publish poverty rates without revealing the relevant poverty lines and real income estimates used to construct them (in this respect the upgraded Povcal.net website is a model of how to publish and update poverty rates that national statistical agencies would do well to emulate).

Finally, we can consult another series of surveys, not conducted by the BBS. Trends in child mortality from the standardized international Demographic and Health Survey are shown in Figure 5. This survey is done to DHS standards by a different agency within Bangladesh. The results of these surveys are largely consistent with the low CBN line poverty reduction. Figure 5 plots trends in child mortality for five year averages centered at 1991 and 2001. Comparing this U5MR trend to that in Figure 3 above, the DHS estimates starts lower and ends at about the same rate as in the WDI data. Child mortality rates for all three groups dropped at 2.9-7.1% annual rates, indicating progress but at rates which are slightly behind the 2015 MDG target of reducing the U5MR by two-thirds. To achieve this goal, the under 5 mortality must fall by 4.3% annually. At a 4% annually fall Bangladesh is almost on track to achieve this goal, but infant mortality seems to **stopped** falling after 1997 (whereas mortality rates for children age 1-4 are falling 7% annually). Still these independent survey results are consistent with falling poverty rates in Bangladesh, with the qualification that progress in reducing infant mortality slowed near the end of the 1990s.

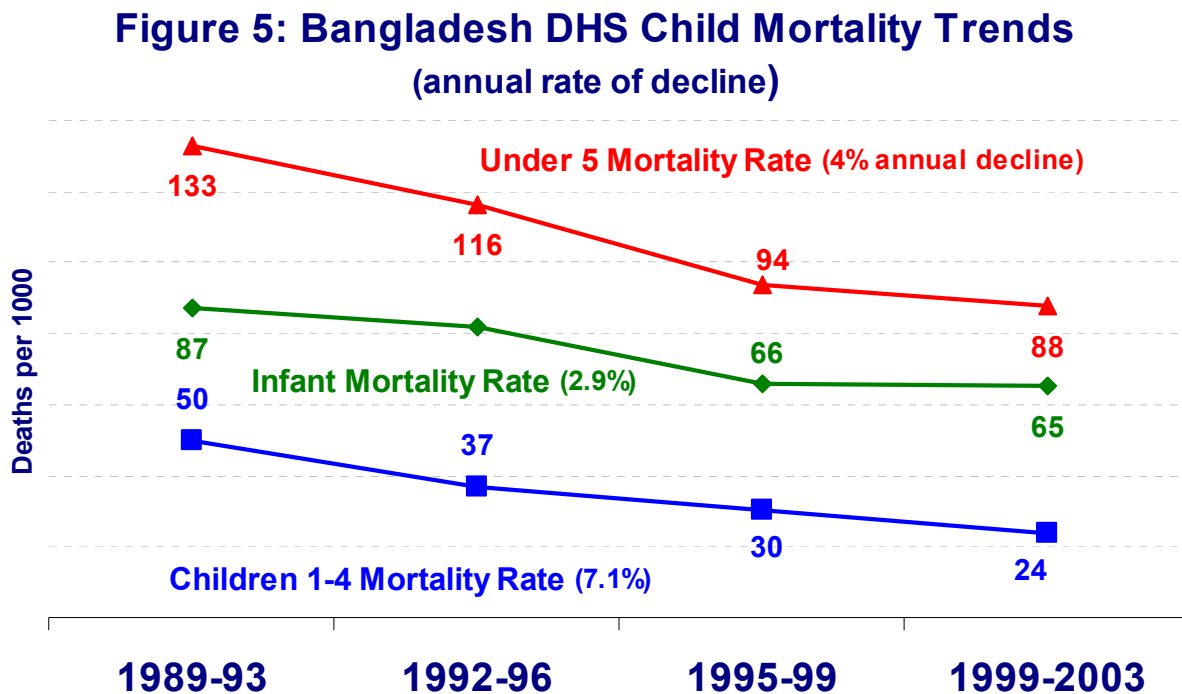


Table 4: Bangladesh Poverty and Inequality Statistics 1990-2005

Low CBN Poverty Measures		1990	91-92	1999	2000	2004	2005	Change	Source:
Overall Poverty Headcount	1				34.3		25.2	-27%	BBS-HIES
Rural Poverty Headcount	2				37.9		28.6	-25%	BBS-HIES
Overall Poverty Gap	3				7.5		4.6	-39%	BBS-HIES
Rural Poverty Gap	4				8.3		5.3	-36%	BBS-HIES
Overall Gap Squared	5				2.4		1.3	-46%	BBS-HIES
Share of households in rural areas	6				80%		75%	-5%	BBS-HIES
Poverty Monitoring Survey 1999-2004									
Households in crisis	7			28		22		-21%	BBS-PMS
Households below FEI poverty line*	8			45		42		-6%	BBS-PMS
Morbidity (% poor sick last month)	9			17		15		-12%	BBS-PMS
Direct Calorie Intake indicators:									
% children under 5 underweight	10	66%				48%		-27%	MDG-Monitor
% w/less than 2122k.cal. Day	11				44.3		40.4	-9%	BBS-HIES
% w/less than 1805k.cal. Day	12				20		19.5	-3%	BBS-HIES
Total Calories (kcal/capita/day)	13				2240		2239	0.0%	BBS-HIES
Share of Food in Cons. Spending	14				54.6		53.8	-1.5%	BBS-HIES
Cereals	15				487		469	-3.7%	BBS-HIES
Milk, meat and fish	16				82		90.1	11%	BBS-HIES
Vegetables	17				141		157	12%	BBS-HIES
Share (%) of Houses with:									
with brick or wood walls	18				38		55	46%	BBS-HIES
with mud or bamboo walls	19				62		45	-28%	BBS-HIES
with Electricity	20				31		44	42%	BBS-HIES
with Sanitary toilet facilities	21				30		52	72%	BBS-HIES
Inequality Measures									
Share of bottom 20%	22		9.4%		8.7%			-7.4%	Povcal.net
Gini Coefficient	23		28.3		33.4			18%	Povcal.net
Mean Log Deviation	24		0.13		0.18				Povcal.net
Inequality Ratio	25		4.1		4.9			20%	Povcal.net
Bottom 5% (Taka/household)	26				1191		1605	35%	BBS-HIES
Top 5% income (Taka/household)	27				28976		33471	16%	BBS-HIES
Ratio Top to Bottom 5%	28				24		21		

Sources: Bangladesh Bureau of Statistics, *2005 HEIS Key Findings* posted July 9, 2007 and Key Findings of Poverty Monitoring Survey 2004, posted July 6, 2007 both at www.bbs.gov.bd. The MDG Monitor site provides data for Bangladesh on the share of children under 5 severely underweight (www.mdgmonitor.org/goal1.cfm)

*The food intake energy poverty line (FEI) reflects the monthly expenditures required to purchase 2122 calories per day per person. FEI poverty estimates may be unreliable if there is a big difference in rural and urban consumption patterns (in other words it may overstate rural poverty). This poverty rate is comparable to the DCI poverty rate shown on line 11, evidently. World Bank Povcal.net data was downloaded October 2007.

Conclusions and Policy Recommendations

To summarize, our review of Bangladesh poverty rates in 1990s suggests:

- The best available poverty rates for monitoring Bangladesh Goal 1 progress are the hybrid high and low CBN poverty lines included in the PRSP and published by the Bangladesh Bureau of Statistics. The 2005 Bangladesh MDG report only includes the high CBN poverty rate, but since the low CBN line is closer to the \$1.08/day \$PPP standard, it would be better to report only the low CBN line if one national poverty rate had to be chosen for Bangladesh.
- The Global Monitoring poverty estimates do not use relevant price information from Bangladesh's household surveys. The National CPI is used to adjust the poverty line over time. The CPI exaggerates increases in the cost of living, particularly for poor rural households, effectively raising the 2000 poverty line and creating the impression that absolute poverty has increased in Bangladesh. This problem illustrates one of many problems that arise in poverty measurement when household survey data is combined with national accounts statistics in arbitrary ways.
- Whether one uses the 1983-84 or the 1991-92 CBN consumption basket for the poor, near \$1/day poverty fell rapidly between 1991-92 and 2005, about 3.5% annually, faster than the 2.8% needed to cut poverty in half by 2015. In fact if \$1.20/day poverty continues to fall at this rate Bangladesh will achieve Goal 1 in 2010 instead of 2015. Hence singling out of Bangladesh as an example of "pro-poor" growth in the 1990s, as the DFID-World Bank did in 2004 seems justified, and pro-poor growth continued, more or less, through 2005. The global monitoring poverty indicators that show rising poverty over this period appear to be inaccurate, especially in light of improvements in a range of other MDG and well-being indicators.
- A clear case can be made for choosing the CBN poverty rates on a priori grounds. The new IPC project has set a goal of replacing current national purchasing power parity estimates with what it calls "Poverty PPPs" (Appendix A reproduces the ICP statement on Poverty PPPs). Poverty PPPs are tailored to the basket of goods actually consumed by the poor. In effect, the BBS uses a poverty PPP for about 60-70% of spending covered by prices collected in the HIES surveys. The national accounts CPI is used only for items not covered by the survey. In this respect the methodology used by the BBS is "ahead of the curve" and should, a priori produce better poverty estimates. Of course even the poverty estimates need to be corroborated ex post with other data on well-being among the poor.
- In addition to a priori methodological arguments, one can also use "ex post" methods for validating poverty measures.¹⁰ Did other correlates of poverty such as malnutrition indicators or child mortality rates show improvement or deteriorate over the interval in question? One can also look at diet components or the food spending share as a whole to validate improved or deteriorating standards of living. For the most part, these correlates of poverty track CBN estimates of poverty well (see Table 4) especially over the 1990 to 2005 period covered by household survey data. Though inequality rose during the period (the Gini coefficient rose from .28 to .33 in 2000) rapid growth in per capita income, especially in rural areas, was sufficient to offset the effects of rising poverty.

¹⁰ See McLeod (2006) for discussion and application of both methods for evaluating rival poverty estimates.

Coping with Multiple Poverty estimates

Perhaps the most important lesson of this case study is that it is possible to sort through and choose among contradictory poverty measures. There are both a-priori (methods) and ex-post outcomes that can be used to choose among conflicting poverty estimates. In this case the national poverty rates were clearly superior to those produced by the global monitoring agencies. This is not always the case, but it clearly should not be ruled out. The standardized methodology used by the World Bank and UNSD results in comparable poverty estimates across countries, but these are not always the most accurate poverty measure. Bangladesh is an example of how both trend and the degree of poverty can be miscalculated: it is a cautionary tale.

This report provides a short checklist of adjustments which can lead to inconsistent poverty estimates for the same survey, poverty line and time period. In fact the case of Bangladesh in the 1990s demonstrates how disparate international and national poverty estimates can be reconciled and the status of poor clarified. Much of the information reported here was readily available on line in background papers prepared by regional and national researchers. Moreover, the PPP conversion calculations reported here are tedious but not difficult. Even where there are many poverty lines to be compared with one, weighted averages and a few price index adjustments can translate national poverty rates into terms understood by the international community and more important identified as key MDG indicators (\$1/day a poverty rates for example).

Minimum documentation and best practices for comparing poverty lines and poverty calculations should be developed and posted by global monitoring agencies including the World Bank, the UNSD and relevant groups within the UNDP. These guidelines can serve as best practice guides for sorting through alternative poverty lines and for developing new poverty measures. An of course, even the best poverty estimates need to be tested against related measures of health, education and well-being (housing quality for example) among the poor. A first principle should be to keep an open mind and let evidence speak rather than choosing based on the reputation of a particular agency or pre-conceived notions of which way poverty rates should be moving.

Better reporting and documentation of poverty rates by both the Global Monitoring agencies and Bangladesh's Bureau of Statistics would, quite painlessly, largely end the confusion regarding poverty trends in Bangladesh (and render this note redundant). The Global Monitoring agencies should report a complete set of national poverty estimates, with documentation and links to relevant publications documenting these estimates (Povcal.net does this in fact, but even there it is not easy to find references to even World staff authored evaluations of Bangladesh's national poverty rates). It is not clear why the key 1991-92 benchmark national poverty rate is not reported by global monitoring agencies. One reason for not reporting national poverty estimates is that they may contradict international estimates and trends. In fact, however, the GMA web sites systematically underreport national poverty rates, and those that are reported are poorly documented (even for relatively large and poor countries such as Bangladesh).

Similarly, the authors of Bangladesh national PRSP and MDG reports state vaguely that "most poverty rates" show progress in reducing poverty in Bangladesh but fail to mention global monitoring estimates or the DCI poverty measures that show less progress than the CBN measures. All national MDG appendices should include a short appendix documenting national poverty measurement efforts (which are adequate in the case of Bangladesh, but may need addition resources and survey efforts in many countries). Finally each MDG should cite the national poverty rate associated with the poverty lines closest to the \$1/day and \$2/day standards. In this case this is Bangladesh low CBN poverty rate

which shows even more progress than high CBN rate mistakenly described by the 2005 MDG report as \$1/day poverty.

Finally, some responsibility for the confusing poverty picture in Bangladesh falls on the national agencies and research institutes that conduct and report periodic household surveys. Even when these surveys are supported by international agencies, survey data is often monopolized by a small number of researchers. Outside support of data collection should always be conditional on clear and timely electronic publication of all the poverty rate components: poverty lines, household income estimates and of course the price deflators used. This should also be a key component of the PRSP and MDG report process. To its credit, the BBS publishes a range of corroborating living standard measures from the HEIS surveys. On the other hand, it does not publish adequate documentation for key poverty rates, and does not provide comparable estimates from earlier surveys (for the 1991-92 benchmark survey for example). Without the efforts of regional and national World Bank economists who coauthored a series of reports on Bangladesh poverty trends, it would have been impossible to untangle the source of disparities in national vs. international poverty rate estimates. It is the responsibility of the BBS and other agencies using household survey data to publish adequate documentation for the poverty measures that are now so much the focus of economic and social policy. Poverty measurement should become as standardized and as well documented as any component of the national accounts (or equally obscure, depending on your perspective).

The credibility of both national and international agencies would be enhanced by clear and comparable reporting of poverty measures. Clear common sense evidence reported in an appendix or footnote can explain the choice of one poverty rate over another. Of course, the different priorities and methods of global poverty monitoring institutions and national statistical authorities will not be reconciled by clear and transparent reporting. But when disagreements do arise, full debate and disclosure enhances the credibility of poverty measures and measuring agencies, thereby adding legitimacy and performance checks on policy efforts and spending aimed at the poorest groups.

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Appendix A: Poverty PPPs (reproduced from the IPC web page August 29, 2007)

Quantifying the purchasing power differences across countries and income groups is critical for measuring global poverty and monitoring the effectiveness of poverty alleviation policies. Crucial steps in compiling such poverty incidences are the conversion of the US\$1/day international poverty line into the respective national currency units of countries using PPPs and determining the number of people who fall below that threshold. This measure is a key indicator for monitoring the Millennium Development Goals.

Current Limitations

In the absence of poverty-specific PPPs, the common practice is to use PPPs for aggregate consumption. This has two limitations. First, the PPPs are based on prices of consumption items for all countries in the comparison. Consequently, the PPP estimates for developing countries are unduly influenced by the consumption baskets and spending habits of their developed counterparts. Second, the PPPs are derived using national average expenditure weights. Therefore, goods that are important to the poor and comprise a large part of their expenditure carry proportionally less weight.

Poverty Advisory Group

A Poverty Advisory Group established to address the limitations of current PPPs has recommended that poverty-specific PPPs be computed for countries where poverty is prevalent, using price relatives from ICP sources together with weights representing expenditure patterns of the poor. The data to construct such weights can only come from nationally representative household expenditure surveys.

Integration of ICP and Household Expenditure Surveys

A characteristic feature of the ICP survey framework is that individual consumption expenditure by households is broken down into 90 classes according to the Classification of Individual Consumption According to Purpose (COICOP). Some classes are further divided into 110 Basic Heading (BH) expenditures. The ICP provides detailed price data for specifications of individual items that are classified into the 110 BHs.

Though the ICP provides a detailed account of regional variations in prices, its expenditure side of the matrix leaves much to be desired. On the expenditure side, Household Expenditure Surveys (HES), in contrast, typically provide a detailed breakdown of expenditures by regions *and* income groups. But the price side of their matrix is mostly sparse, if not virtually blank. One very important off-shoot of the 2005 ICP Round is the work to integrate the ICP and HES by establishing a correspondence between the ICP and HES expenditure classifications

Appendix B: Description of Bangladesh Household Survey (HIES 1991-92 to 2000)

This information provided by the Povcal Net web site for Bangladesh as of August 2007. Between 1991-92 and 2000 (including the mid decade 1995-96) there were major changes in the scope and coverage of the HES, in fact in 2000 the name of the survey was changed to the Household income and Expenditure survey (the HIES). Other information on the three surveys is noted in Table A-1.

Table B-1: Bangladesh Household Income and Expenditure Surveys, 1991-92 to 2000

Year	1991-92	1995-96	2000
Acronym	HES	HHES	HIES
Sample Size	5760	7440	7440
Sampling Method	Not-specified	Multi-stage stratified Random sample	Multi-stage stratified Random sample
Sampling Notes	none	See note 2/ below	See note 1/ below
Coverage	National	National	National

Contact: Bangladesh Bureau of Statistics (BBS) E-27/A, Agargaon, Sher-e-banglanagar
Dhaka Phone 880-2-9118045 Email ndbp@bangla.net Web: www.bbs.gov.bd/

Source: World Bank Pov Cal Net, iresearch.worldbank.org/PovcalNet/povcalSvy.html accessed 8-2007.

1/ 2000 HIES Sample Notes: The sample of households for the HIES 2000 was selected in two stages. At the first step, 442 Primary Sampling Units (PSUs) were selected throughout the country. At the second stage, within each selected PSU, households are selected for interviews. The overall sample for the country is divided into 14 strata or groups: (i) rural areas, (ii) urban municipalities, and (iii) statistical metropolitan areas in each of the 5 divisions are considered as a separate group (there are no SMAs in Barishal Division). Within each PSU, 20 households will be interviewed, except in all Statistical Metropolitan Areas (SMAs), where only 10 households will be interviewed in each PSU. Overall, a total of 7,440 households will be interviewed for the HIES 2000.

2000 HIES Abstract: The Household Income and Expenditure Survey (HIES) is one of the core survey activities carried out by the Bangladesh Bureau of Statistics (BBS). The main objective of the HIES is to collect data from the households located in Bangladesh to allow the government to conduct research on issues of policy interest, monitor progress in national living standards and nutritional status, formulate appropriate policies related to poverty reduction, and to evaluate the impact of various policies and programs on the living conditions of the population. Data from the survey is also used to estimate budget shares for the Consumer Price Index (CPI) and to update the System of National Accounts.

Changes in the 2000 HIES from Earlier Rounds: The current round of the HIES differs from previous surveys that have been carried out in Bangladesh. Instead of focusing only on a few areas, for instance health or labor force participation, the HIES 2000 will gather information on a variety of areas. This questionnaire is more ambitious and complex than earlier ones, and will collect data on demographics, housing, education, health, employment, income and economic activities, and consumption. This will allow the study of data on one area in conjunction with data on other areas; for instance, data from the survey can be used to study the impact of education on health or on employment. Understanding the interaction and linkages between different aspects of a household's life will enable the government to design more effective development policies and programs. The name of the survey has accordingly also been changed from HES to HIES (Household Income and Expenditure Survey). A second distinctive feature is that a community questionnaire is administered in addition to the household questionnaires. The community questionnaire, which will be administered in all Primary Sampling Units (PSUs) in rural areas, collects information on characteristics of the community, facilities and amenities available. This information will help in studying the information collected at the household level. For instance, as a result of collecting data through both the household and community questionnaires, enrollment rates in different parts of the country can be related to accessibility of schools, or farm income and agricultural practices related to the quality of local infrastructure and availability of agricultural inputs, etc. The study of such interrelationships between household outcomes and community factors is a particularly important one from a policy perspective.

2/ 1995-96 Sampling Notes: A two-stage stratified random sampling technique was followed in drawing the sample for Household Expenditure Survey 1995-1996. In the first stage, 372 Primary Sampling Units (PSU) were drawn from the 1991 census pool. These PSUs were selected from the 14 different strata. In the second stage, twenty households were

selected from each PSU by systematic random sampling method, yielding a sample size of 7,440 households. Among these 372 PSUs, 119 were in urban area and 252 in rural areas. A total of 7,420 households were interviewed (because twenty households in one PSU in Dhaka Statistical Metropolitan Area could not be visited by field teams). No information is found on how weights were calculated and how non-response was dealt with. 1995/96 survey is generally comparable to previous surveys up to 1982/1983. Data collected before 1982 are less comparable because of various reasons. For example, only limited data were published before 1981/82 because of delay in data processing and only recall method was used for expenditure data. A combination of both recall and diary methods were adopted after 1983/84, which generated more comparable data. 1995/96 survey also marked some significant differences compared to previous surveys. Sample size was increased from 360 PSUs in 1991/1992 for example to 372 in 1995/96. The 1995/96 survey also collected comprehensive information on education and community characteristics in rural areas for the first time. In addition, unlike previous years, data entry was carried out in the regional statistical offices using microcomputers and data entry software was used to detect data inconsistencies and errors, which was followed by a field visit of supervisors when data correction was needed.

Appendix C: Millenium Development Goal Global Monitoring Sites and Sources

The success of the Millennium Development Goals as development targets is reflected in the number of agencies and groups that now post the latest data on progress toward 2015 targets (just 6-7 years some minutes and counting as the new UN-Cisco-Google MDG Monitor site reminds us). This report refers to three main sites, all which share a largely common database of poverty related Goal 1 indicators. The “official United Nations site for the MDG indicators” is the UN Statistics Division Millennium summit site (see the Table C.1 below). It is maintained by a consortium of UN agencies know as the Inter-agency Expert Group on MDG Indicators (IAEG) see below. The main official MDG database is maintained by UNSD, accessible for country and regional queries on the latest povety indicators. For the most part, the UNSD makes sure its poverty estimates are consistent with those prepared by the World Bank’s Povcal.net group, a similar set of poverty estimates are published by World Bank’s World Development indicators (the WDI). The World Bank also maintains a Global Data Monitoring Information system (<http://developmentgoals.org/>) which also has a “quick query “system for country data. Below are the results of a quick query for Bangladesh showing some of the data discussed in this report. The World Bank provides additional information and definitions of each of these variables in its WDI database. The UNSD also provides notes on how data are obtained and adjusted: the global monitoring poverty estimates are marked G (the \$1/day measures shown below) and the national poverty rates are labeled CA, though they are generally very close to the national estimates (see Table 1 in the main text).

World Bank Quick Query for Bangladesh 10-8-07	1990	92	96	97	98	99	2000	01	03	2004
Income share held by lowest 20%	..	9	9	..	..	..	9	..	..	..
Malnutrition prevalence, weight for age (% of children under 5)	66	68	57	56	62	61	48	52	..	48
Poverty gap at \$1 a day (PPP) (%)	..	9	6	..	..	..	10	..	..	..
Poverty headcount ratio at \$1 a day (PPP) (% of population)	..	36	29	..	..	..	41	..	..	..
Poverty headcount ratio at national poverty line (% of population)	51	..	..	..	50	..	..	..
Prevalence of undernourishment (% of population)	..	35	..	40	..	..	..	..	30	30

Source: World Bank Global Monitoring System Data quick query (see <http://developmentgoals.org/>)

UNSD Data Notes

C	Country Data	The figure is the one produced and disseminated by the country (including data adjusted BY THE COUNTRY to meet international standards)
CA	Country Adjusted	The figure is the one produced and provided by the country, but adjusted by the international agency for international comparability—that is to comply with internationally agreed standards, definitions and classifications (age group, ISCED, etc)
E	Estimated	The figure is estimated by the international agency, when corresponding country data on a specific year or set of years are not available, or when multiple sources exist, or there are issues of data quality. Estimates are based on national data, such as surveys or administrative records, or other sources but on the same variable being estimated.
M	Modeled	The figure is by the agency when there is a complete lack of data on the variable being estimated. The model is based on a set of covariates—other variables for which data are available and that can explain the phenomenon (example: maternal mortality or slums, to a certain extent)
G	Global monitoring data	The figure is regularly produced by the designated agency for the global monitoring, based on country data. However, there is no corresponding figure at the country level, because the indicator is defined for international monitoring only (example: population below 1\$ a day)
N	Non-relevant	The figure is not available because the indicator—as defined for the global monitoring—does not apply to the circumstances of the specific country, and therefore is not reported

Appendix Table C.1 Links to UN Millennium Development Goals sites:*

The UN-Google–Earth MDG Monitor (a UNDP-UNSD-DESA-OCHA-UNICEF w/ support from Google & Cisco)	http://www.mdgmonitor.org .
The United Nations Millennium Summit	http://www.un.org/millennium/
United Nations Millennium Development Goals	http://www.un.org/millenniumgoals/
Millennium Project	http://www.unmillenniumproject.org/
Millennium Campaign	http://www.millenniumcampaign.org/
Millennium Development Goals Country Reports	http://www.undp.org/mdg/countryreports.html
United Nations Development Programme (UNDP)	http://www.undp.org/mdg/
Millennium Development Goals Asia Pacific	http://mdgasiapacific.org/
Millennium Development Goals in Latin America and the Caribbean	http://www.eclac.cl/mdg/
MDGs in Africa	http://uneca.org/mdgs/
United Nations High Commissioner for Refugees (UNHCR)	http://www.unhcr.org/statistics/45b0da462.html
United Nations Environment Programme (UNEP)	http://www.unep.org/mdgs/
Market Access Indicators	http://www.mdg-trade.org/

*Except for the MDG monitor site listed first in Table C.1, both Table C.2 and C.3 are taken directly from the “links” page of the official UNSD MDG Indicators site (see (<http://mdgs.un.org>)).

Inter-agency and Expert Group (IAEG) on MDG Indicators

The UNSD describes the IAEG as representatives from group of “Departments within the United Nations Secretariat, a number of UN agencies from within the United Nations system and outside, various government agencies and national statisticians, and other organizations concerned with the development of MDG data at the national and international levels including donors and expert advisers. IAEG is responsible for the preparation of data and analysis to monitor progress towards the MDGs. The Group also reviews and defines methodologies and technical issues in relation to the indicators, produces guidelines, and helps define priorities and strategies to support countries in data collection, analysis and reporting on MDGs.”

Table C.2: Links to websites of MDG Data Providers:

Povcal.net (World Bank)		http://iresearch.worldbank.org/PovcalNet/
World Bank		http://developmentgoals.org/
WHO		http://who.int/mdg/en/
Unicef		http://unicef.org/statistics/
CDIAC		http://cdiac.ornl.gov/
FAO		http://www.fao.org/es/ess/index_en.asp
FAO Forestry		http://www.fao.org/forestry/index.jsp
ILO Employment		http://www.ilo.org/public/english/employment/strat/etmdg.htm
ILO Statistics		http://www.ilo.org/public/english/bureau/stat/index.htm
IMF		http://www.imf.org
ITC		http://www.intracen.org/
ITU		http://itu.int/ITU-D/ict/mdg/
IPU		http://www.ipu.org/
OECD		http://www.oecd.org/
UNAIDS		http://unaids.org/en/Goals/MilDevGoals/default.asp
UNCTAD		http://www.unctad.org
UNEP		http://www.unep.org/mdgs/about/index.asp
UNEP-WCMC		http://sea.unep-wcmc.org/wdpa/mdgs/index.cfm
UNESCO		http://www.unesco.org/bsp/eng/mdg.htm
UNFCCC		http://unfccc.int
UN-Habitat		http://www.unhabitat.org/mdg/
WTO		http://www.wto.org/