New Global Poverty Estimates: What do these mean?

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The World Bank has recently released updated estimates of world poverty based on a new international poverty line of US$ 1.25 per day per person at 2005 purchasing power parity (PPP) prices. These use price data from the latest International Comparison Programme (ICP 2005), also managed by World Bank, that are more exhaustive in terms of countries covered and more reliable because of better data quality. The 2005 ICP has led to large revisions in PPP dollar values of national currencies and consequently to World Bank estimates of world poverty based previously on a poverty line of US$ 1.08 per day per person at 1993 PPP prices derived from ICP 1993. A notable feature of the new update is that estimates of world poverty have been revised upwards quite sharply although the revision of poverty line from $1.08 to $1.25 is modest, much less than the 35% increase in US Consumer Price Index between 1993 and 2005. Measured poverty is higher at any US$ poverty line because ICP 2005 shows US dollars buying less in most developing countries than earlier assumed, particularly in China and India which did not participate in ICP 1993. But World Bank has chosen to moderate this by: (i) anchoring its new US$ poverty line to existing national poverty lines of a set of poor countries, converted to US$ with the new 2005 PPP exchange rates, rather than adjusting the old $1.08 poverty line for US inflation; and (ii) adopting *ad hoc* a rural-urban break-up of China and India which has the effect of much less PPP revision for these two large countries than what ICP 2005 suggests.

The new World Bank estimates put the total number of poor in the world at 1.4 billion in 2005, which is about 400 million more than previous World Bank estimates of global poverty. However, the accompanying paper entitled "The Developing World Is Poorer than We Thought, But No Less Successful in the Fight against Poverty" (Shaohua Chen and Martin Ravallion, World Bank Working Paper 4703, August 2008) points out that even though there are 400 million more poor in 2005 than was estimated earlier, the rate of decline in poverty remains unchanged. This is based on recalculated poverty estimates for previous years starting 1981, using the 2005 PPPs and $1.25 poverty line. These show that the number of poor in the world declined from 1.9 billion (or 52% of population) in 1981 to 1.8 billion (41.6% of population) in 1990 and to 1.4 billion (25.7% of population) in 2005. An implication drawn is that the new estimates do not alter the conclusion from earlier World Bank estimates that the developing world as a whole is likely to achieve the Millennium Development Goal (MDG) of reducing poverty by 2015 to half of what it was in 1990.

This implied optimism on MDG target is however muted since it is noted that the new data also show that world poverty reduction has been concentrated mainly in East Asia, and that the rest of the developing world is not on track to meet this target. The World Bank's revised number of the poor reduced by 751 million in East Asia between 1981 and 2005, with 627 million of this accounted for by China alone where the headcount ratio declined from 84% to 15.9%. On the other hand, the number of poor in the rest of the developing world, excluding East Asia, *increased* by 246 million. The only other regional block which saw a decline in number of poor was Middle East and North Africa where the number of poor declined by 0.9 million. Other than these two, all other regions saw the absolute number of poor increase. The largest increase in number of poor during this period was in Sub-Saharan Africa (182 million) followed by South Asia (47.2 million) and Eastern Europe and Central Asia (17.3 million). In terms of the headcount ratio using the new $1.25 line, poverty

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incidence in the developing world excluding China *has* come down from 40.4% in 1981 to 35.2% in 1990 to 28.7% in 2005. But the pace of poverty reduction has slowed from 0.58 percentage points per annum (ppa) during 1981-1990 to 0.43 ppa during 1990-2005, and is certainly not enough to achieve the MDG target of halving the 1990 poverty ratio by 2015 (i.e. reduce the poverty ratio to 17.6% by 2015). For this, the developing world excluding China will have to reduce poverty at 1.1 percentage points per annum during the next decade, i.e. at more than twice the rate actually achieved since 1990.

As far as India is concerned, the new World Bank estimates place the number of poor (using the 2005 $1.25 cut-off) at 420.5 million in 1981, 435.5 million in 1990 and 455.8 million in 2005. These numbers are much higher than the Planning Commission official estimate of 302 million poor in 2004-05, and show moreover that the absolute number of poor in India has been rising. Further, although these new World Bank estimates do imply that the poverty ratio has declined from 59.8% in 1981 to 51.3% in 1990 to 41.6% in 2005, the rate of poverty reduction by these estimates has slowed markedly from 0.94 ppa achieved during 1981-1990 to only 0.65 ppa during 1990-2005. The MDG target of achieving half the 1990 poverty ratio by 2015 will not be met unless the rate of poverty reduction can be accelerated from this to 1.6 percentage points per annum. Not only is India poorer by the new estimates, these confirm that the fight against poverty slackened during 1990-2005 despite higher growth and that attainment of the MDG target looks more difficult than thought earlier.

If this was not bad news enough, the Asian Development Bank (ADB) released its estimates on poverty in Asia ("Key Indicators for the Asia and the Pacific 2008") a day after the World Bank release, showing even higher poverty in India. According to ADB, the number of poor in India was anywhere between 622 to 740 million in 2005, well over double the official Planning Commission estimates. Since ADB was the regional counterpart in the ICP for international price comparisons, these ADB estimates are based on the same ICP 2005 PPP exercise that was used by the World Bank. But ADB uses a higher Asian poverty line of $1.35 per day per person rather than the $1.25 per day per person used by the World Bank, and also makes an attempt to improve upon World Bank by using price data relating more directly to those paid by the poor than the usual ICP price comparison for an average consumer bundle. Unlike World Bank, ADB does not report detailed inter-temporal trends in poverty, and among Asian countries for which it presents estimates a notable absentee is China. Yet, the depressing result from ADB is that in 2005 India had the second highest poverty ratio (54.8%) among all the Asian countries studied, next only to Nepal (55.8%) and higher than Bangladesh (42.9%), Cambodia (36.9%), Bhutan (31.8%), Philippines (29.5%), Pakistan (24.9%), Indonesia (24.1%), Vietnam (16.0%), Sri Lanka (9.9%) and Malaysia and Thailand (0%). This means that India's poverty ratio must reduce at over 2 percentage points per annum (or thrice the actual pace during 1993-2005) to attain the MDG target of half the 1990 poverty ratio by 2015. And even if achieved, Indian poverty would be around 32% by this ADB norm in 2015, higher than what most Asian countries have already achieved in 2005!

This article is an attempt to critically examine these new poverty estimates from World Bank and ADB following the ICP 2005 exercise. Past World Bank poverty estimates have been criticised both by those who held that these were too low and those who found them too high. A similar situation exists with India's national poverty estimates, both with respect to absolute levels of the poverty lines and their inter-state and inter-sector differences. Since an Expert Group is currently examining the matter, this review attempts to relate these new international estimates to the present Indian practice.

World Bank Poverty Estimates

The latest estimates of world poverty from World Bank are third in a series of its ongoing effort to measure global poverty using poverty lines that are comparable across countries. The first such systematic exercise was by Ravallion, Datt and Van de Walle (1991) for World Development Report, based on PPP data from the

1985 round of ICP and implemented on a small subset of 22 countries. This was genesis of the popular international poverty line of $1 per day per person. A major revision was made to this in 2000-01, using estimates of PPP from the 1993 round of ICP and an updated poverty line of $1.08 per day per person (Chen and Ravallion, 2001). The recently released estimates are a further update incorporating price data from the 2005 round of ICP. Like any poverty estimate, these are subject to limitations of the survey instruments used to measure consumption/income distribution at the national level and very sensitive to definition of poverty lines. Moreover, with international comparisons involved and PPP exchange rates between various national currencies used to derive national poverty lines from a single world poverty line, particular interest centres on how this world poverty line is arrived at and on the PPP data used to convert this to national poverty lines.

Of the two essential requirements for estimating poverty in any country, a poverty line and a distribution of consumption expenditure/income, there is limited choice regarding the second since the only source of distribution data are household surveys conducted by respective national statistical agencies. Consequently, except for availability of some more national surveys, nothing of substance has changed in the new estimates regarding distributions used, with World Bank accepting most national surveys available and using National Accounts (NAS) data to interpolate between survey gaps. In particular, the World Bank continues to ignore critics (e.g. Bhalla 2002) who point to large discrepancies between survey and NAS data on consumption expenditure and suggest that survey estimates be scaled to conform to the NAS consumption estimates. The World Bank view on this is that such discrepancies do not imply either that surveys are wrong and NAS right or that survey errors, if any, can be corrected by assuming that such errors affect the rich and poor similarly. But, although this is correct, World Bank poverty estimates themselves assume that the national surveys used are reasonably accurate measures of income/consumption at least of those near or below the poverty line.

However, even though the quality of data from household surveys has improved over time, this remains a strong assumption because issues of comparability arise even for nationally representative household surveys. For example, it is well known that income surveys measure less poverty compared to consumption expenditure surveys and yet the new World Bank poverty estimates continue to mix data from both these types of surveys. Quite apart from comparability across countries, a consequence of this might be that a part of the measured decline in world poverty is spurious since many more of the earlier surveys, including for China, are based on income rather than consumption data[1]. Moreover, even for consumption expenditure surveys, estimates of consumer expenditure can vary depending on levels of commodity aggregation and the choice of recall period for collecting such information. A large part of the debate on poverty measurement in India has revolved around ensuring consistency and comparability across household consumption surveys which use different survey instruments. Interestingly, the World Bank has recognised this and dropped the controversial 1999-2000 NSS survey from its new poverty estimates. But the way this has been done has left a hole in its India time series between 1993 and 2004, which has been filled by interpolation from NAS data although there was survey data available for each of these years that could have been used with adjustment for comparability. Clearly, not only do the World Bank's new world poverty estimates remain subject to use of surveys that may be non-comparable across countries and years, there also appears to be lack of clarity on how it decides on which surveys to include and which to drop and replace with NAS interpolation.

[1] From the information provided in the appendix of the report, the Chinese data for the 1980s appears to be income data whereas the data from 1990 and beyond is consumption data. Using same poverty lines for rural and urban areas, Chinese poverty reduction based on income surveys is 68% over 1981-2005 (85.3% in 1981 and 17.3% in 2005). The same based on consumption estimates is 61% over the same period (87.4% in 1981 and 26.4% in 2005). That is, poverty reduction is significantly different by different surveys. Consumption surveys which are used in World Bank poverty estimates not only show lower estimates of poverty but also show lower rate of poverty reduction.

Nonetheless, as noted earlier, the main change effected by the new estimates arises not from any different treatment of national surveys but from the use of new ICP 2005 data to recalculate poverty lines. While these are almost certainly better estimates of PPP than data from ICP 1993, World Bank has again not taken on board many criticisms on methodological inconsistencies that were made at the time of the last revision. One of the most cited criticisms of the World Bank in recent years has come from Sanjay Reddy and Thomas Pogge (Reddy and Pogge 2002) who have criticised the World Bank for underestimating global poverty. Reddy and Pogge advance three criticisms against these estimates Firstly, that the World Bank international poverty line is not adequately anchored in any specification of the real requirement of the human being. Secondly, that the PPP concept employed by the World Bank is not appropriate for estimation of poverty. And finally, the point highlighted above, that World Bank estimates involve some level of interpolation and are based on survey data which have their own limitations. Although Ravallion[2] (2008) has attempted to address all these arguments which were raised in the context of previous estimates of poverty from the World Bank, each of these criticisms could be levelled against the revised estimates.

Much of Reddy & Pogge's criticism of the World Bank poverty estimates relate to what should be the threshold level of consumption which can be taken as a universally acceptable poverty line. For its new estimates, the World Bank justification of $1.25 a day as the new international poverty line (rather than the much higher $1.45 obtained if the old $1.08 line was adjusted for US inflation) is that this represents at 2005 PPP exchange rates the average of actual absolute poverty lines of the poorest 15 countries of the world. The procedure followed was to first convert all existing national poverty lines into US$ using the new ICP-2005 PPPs and plot these against mean private final consumption expenditure (or alternatively survey means), also at the new PPPs. This plot shows a gradient with national poverty lines increasing with mean per capita consumption[3], but with a bunching around the bottom tail. Based on these regressions, the international poverty line has been taken as the mean of poverty lines for the poorest 15 countries in the bunch[4], which works out to $1.25 per day per person at 2005 PPPs. The methodology is essentially the same as was used to derive the $1.08 poverty line based on 1993 round of ICP, and which Reddy-Pogge had earlier criticised.

In effect, what the World Bank does is to set the international poverty line at the average of rock-bottom poverty norms actually current in the world's poorest countries after converting each of these to US$ using the new PPPs. However, it points out that absolute poverty lines at the national level in all these 15 countries were anchored, at least when first constructed, to the cost of attaining 2100 calories per person per day in their national currencies to which was added the cost of non-food basic needs taken typically as non-food expenditure of those near the calorie cut-off. This procedure is similar to that originally adopted to construct poverty lines in India and in many other countries[5], and therefore conceptually the World Bank's international poverty line can be said to be anchored to the actual consumption pattern of people around a calorie norm. However, since it is existing actual poverty lines in these poorest countries that are taken as base to calculate the new world poverty line, rather than the 2100 calorie norm itself, it remains a moot point whether these countries are themselves defining their poverty lines in a manner which is appropriate for poverty measurement. If, as in India, actual calorie intakes by people near these poverty lines are now less than the original calorie norm, there are bound to be differences between those who view poverty as deficiency from

[2] See Ravallion 2008

[3] The detailed methodology of arriving at the $1.25 a day poverty line is explained in Ravallion, Chen and Sangraula (2008)

[4] These poorest 15 countries are Malawi, Mali, Ethiopia, Sierra Leone, Niger, Uganda, Gambia, Rwanda, Guinea-Bissau, Tanzania, Tajikistan, Mozambique, Chad, Nepal and Ghana.

[5] The exact specification of the calorie norm varies across countries but the figure of 2100 calories is the most common figure. However, in the Indian case, the calorie norms are 2400 in rural areas and 2100 in urban areas.

the norm calorie intake and those, like World Bank, who are trying to define poverty in its money-metric income/consumption dimension. The difference between these two is consumer sovereignty: that is, if a person who can afford an original bundle with 2100 calories chooses to shift to another bundle with fewer calories, the World Bank would consider this a welfare gain although she is now below the calorie norm. But even for this a necessary condition is that the original bundle remains affordable. This problem is resolved in the case of the Indian poverty line by updating poverty lines on the basis of consumption weights implicit in the specification of poverty line rather than the consumption weights implicit in CPI indices[6]. Although periodic revision of national poverty lines may already have ensured this in the 15 countries chosen, World Bank estimates would have been more reassuring if this had been demonstrated explicitly.

Reddy-Pogge's next argument relates to complications that arise when the benchmark international poverty line is converted to poverty lines at national currencies using PPP exchange rates in order to calculate poverty estimates for each country. Based on the data collected on retail prices of various standardised commodities, PPP conversion factors can be calculated for different purposes. The different PPP conversion factors reflect the choice of goods and services over which they are aggregated and also the weight of different commodity groups in the total. That is, PPP conversion factors for GDP comparison purposes will imply different weights across commodity groups compared to PPP conversion factors representing private final consumption expenditure. The World Bank poverty estimates are based on consumption PPPs, but these use commodity weights for the entire population and not necessarily of the poor[7]. Since poor people spend a larger share of their total income on food compared to the rich, it is possible that the World Bank's PPP conversion factors are not relevant for poverty comparisons in the sense that even the implicit bundle in the poorest 15 countries may not be affordable in other countries at their PPP converted international poverty line. Again, it would be reassuring if the World Bank had demonstrated that this is not the case. This is clearly possible since, for example, the new World Bank and ADB estimates mentioned above vary not because of the price data which was obtained from the same source (ICP 2005), but due to the choice of commodities in the consumption bundle of the poor and the weighting scheme of the various sub-groups in the total commodity bundle.

A further complication in the latest World Bank estimates arise because, despite claims of improvements in the quality of ICP price data from the 2005 round, the data suffer from severe urban bias. For example, the price data are entirely urban in China. In the case of India too, the retail prices of non-food items are entirely urban and for food and intoxicants urban areas represent 72% of the sample compared to their population share of less than 30%. The real problem here is that World Bank adjusts for this only for these two countries (i.e. India and China which together account for almost half of world poor) and not for the rest of the developing world[8]. Since the ICP exercise gives PPP estimates without distinguishing between sectors within individual countries, and in absence of any measure of price differential from the ICP, World Bank uses the same poverty line across rural and urban areas for most countries. But for India and China, poverty lines are calculated separately for rural and urban areas using sampling weights in the ICP (which are heavily biased towards urban areas) and the urban-rural price differentials implicit in the existing national poverty lines (not the ICP data). The impact of this rather artificial construct is that number of poor in India and China together are reduced by 347 million as compared to what this would be if the ICP data had been applied unchanged as

[6] In the Indian case, Deaton (2001, 2008) finds significant differences between inflation as measured by the CPIs and those implicit in poverty lines or obtained from unit values from the consumption expenditure surveys. It may therefore be erroneous to use the national CPI indices to arrive at inter-temporal estimates of poverty.

[7] Ravallion, Chen and Sangraula (2008) suggest that the choice of poverty line using consumption weights of poor is not significantly different from the choice of poverty line using consumption weights of all population.

[8] This is although such bias is also evident in the case of Argentina, Brazil, Bolivia, Cambodia, Chile, Colombia, Ecuador, Pakistan, Peru, Thailand and Uruguay.

in the case of the other countries[9]. Of course, there are valid grounds to apply separate poverty lines for rural and urban areas but then, it should have been done for all other countries also. As it stands, the present World Bank estimates for India and China are not comparable to poverty estimates for the rest of the developing world, and either grossly underestimate the relative poverty in these two large countries compared to other countries or overestimate poverty elsewhere. In either case, the present world poverty estimates are flawed and an odd aspect of this is that the selective urban-rural adjustment now made reduces measured world poverty whereas in an earlier paper Chen and Ravallion (2007) had reported that world poverty at 1993 PPP $1.08 line *increases* by about 2 percentage points when such a rural-urban distinction is made.

ADB Estimates

The ADB which is the regional counterpart of the ICP in Asia had access to detailed ICP price data which permitted calculation of different PPPs from the ICP estimates. ADB provides estimates on the basis of three PPP conversion factors. The first one, called consumption PPP, is the same as the World Bank PPP estimate which uses the consumption shares for general population. The second estimate, called ICP PPPs, use the consumption shares which are anchored to the consumption share of population around the poverty line. The third PPP conversion factor uses price data from the poverty specific price surveys and anchored to the consumption pattern of the poor population. This alternative formulation very closely matches the suggestion forwarded by Reddy and Pogge for construction of PPP conversion factors. The ADB also advocates the use of these poverty specific PPP estimates rather than the general consumption PPPs used by World Bank. The data source for price surveys in all cases is the same, what changes is the choice of consumption bundles and the consumption shares of the various commodity groups. The result of this exercise is, however, quite different from what Reddy-Pogge would have expected. In every country, the PPP conversion factor using poverty specific bundles turns out to be lower than the PPP conversion factors used by the World Bank, so that if World Bank had used these conversion factors it would have actually reported *less* poverty not more[10].

The ADB however uses an international poverty line which is the median of the countries in their study. The poverty line obtained in the case of ADB is $1.35 per day compared to $1.25 proposed by the World Bank. The ADB also reports more poverty for South & East Asia excluding China, at 846 million compared to 725 million reported by World Bank. But, interestingly, excluding India (where ADB reports 622 million poor as compared to World Bank's 456 million), the ADB estimate is lower for all other countries (224 million as compared to World Bank's 269 million). This is entirely because ADB's poverty-specific PPP conversion factors cause all national poverty lines to be lower than the World Bank's even with the higher $1.35 poverty line. The reason ADB gets much higher poverty for India is because it does not do the rural-urban adjustment that World Bank does for India and China alone. The big story from ADB, as mentioned in the introduction is

[9] If the poverty estimation is based entirely on the PPP exchange rate of Rs 15.6 from the 2005 round of ICP, i.e. by applying a Rs 19.5 per day poverty line (1.25*15.6) to both urban and rural areas, the number of poor in India is 662 million (or 60% of population). This is higher by 206 million than reported by World Bank. Following the same procedure implies an increase of 141 million poor in case of China. The figure of 141million increase is based on the reported poverty estimates for China without doing any adjustment for urban-rural price differential in Chen and Ravallion (2008). Together these imply underestimation in total number poor for developing countries as whole by 347 million.

[10] For example, in the Indian case World Bank uses a PPP conversion rate of Rs 15.60 to a dollar. The corresponding poverty-specific PPP conversion rate from ADB poverty line is only Rs 13.6 to a dollar.

that India turns out to be the second poorest Asian country. However, for a clearer picture on this, the rural-urban distinction needs to be uniformly implemented in case of all countries.

Poverty Estimates for India

Both these reports give estimates for India, and are summarised in the table below. Since India is also the country with largest number of poor in the world in 2005 representing one third of total poor in the world, the estimates for India matter a great deal for what happens to world poverty and also for the trend in reduction of poverty. The World Bank estimates poverty in India in 2005 at 41.6% based on $1.25 line. Corresponding estimates from the ADB using Asian poverty line are 65.3%, 63.9% and 54.8% depending on the choice of PPP conversion factor[11]. Compared to these, the Planning Commission estimate of poverty in India is 27% for 2004-05, based on poverty lines of Rs 11.88 per day for rural areas and Rs 17.95 per day for urban areas. As may be seen, the official poverty estimates are close to those obtained by World Bank with a poverty line of US$ 1 at 2005 PPP prices, which is much less than the international poverty line chosen either by ADB or World Bank. An obvious question is what should be the poverty lines in India if these are to be consistent with those used internationally?

Poverty Estimates for India using international PPP poverty lines

	World Bank Estimates					**ADB Estimates**		
Poverty Line $ per day per person	1	1.25	1.45	2	2.5	1.35		
PPP Used	**Consumption PPP**					**Consumption PPP**	**ICP PPP**	**PS PPP**
PPP Rate (Rs/$)	15.6	15.6	15.6	15.6	15.6	15.8	15.5	13.5
Poverty line All-India	15.6	19.5	22.6	31.2	39.0	21.3	20.9	18.3
Poverty line Rural	11.4	14.3	16.5	22.8	28.5	21.3	20.9	18.3
Poverty line Urban	17.2	21.5	25.0	34.5	43.1	21.3	20.9	18.3
Headcount Ratio 1993	31.1	49.4		81.7	89.9	72.7		62.7
Headcount Ratio 2005	24.3	41.6	53.9	75.6	85.7	65.3	63.9	54.8

Source: Chen and Ravallion, 2008 and ADB, 2008

Note: The PPP estimates from the ADB are given in Malaysian Ringgit. These have been converted in to US dollar using the conversion factor of RM 2.11/$. The difference in consumption PPP estimates from World Bank and ADB may be due to rounding off in calculation of $ PPP estimates from ADB.

As mentioned earlier and is also evident from the above table, much turns on whether different poverty lines are used for rural and urban areas. It may be noticed that ADB's PS PPP poverty line, applied both to urban and rural areas is Rs 18.3 per day. This is lower than the poverty line of Rs 19.5 which is obtained with Consumption PPP and the World Bank's US$ 1.25 international poverty line. Nonetheless, the World Bank estimate is lower at 41.6% than ADB's 54.8%. This is because the substantially lower World Bank rural poverty line causes rural poverty to be measured much lower and outbalance the somewhat higher urban poverty that it gets from its higher urban poverty line. Clearly, the World Bank procedure which uses different urban and rural poverty lines is superior to ADB, and in keeping with the methodology used officially. But it turns out that the way in which World Bank has apportioned the ICP PPP between rural and urban areas may

[11] The first estimate of 65.3% uses the same PPP conversion factor as the World Bank but uses a higher poverty line. The second estimate uses consumption PPPs which are anchored to the distribution of consumption for the poor population. The third estimate uses poverty specific prices along with consumption shares anchored to population around poverty line.

be inconsistent. It may be noted that the effective national poverty line obtained by weighting World Bank's US$ 1.25 rural and urban lines with respective population shares is Rs 16.3 per day which in turn implies that the effective PPP exchange rate for India is only Rs 13 per US$ that is not only way below the consumption PPP of Rs 15.6 obtained from ICP and used by World Bank but also lower than the PS-PPP calculated by ADB at Rs 13.5 per US$. Obviously, a relook is necessary to make the World Bank calculations for India with the data obtained from ICP-2005[12].

What do these numbers imply for India? One inescapable conclusion is that the Indian official poverty line is severely underestimated. Given the infirmities noted above, the World Bank poverty estimate of 41.6% is clearly the lower bound if poverty in India is to be judged by the same purchasing power parity as the existing poverty lines of the world's poorest countries. The ADB poverty estimates for India range from 54.8% to 65.3%, which may at first sight appear too high. However, using household consumption data for India, the percentage of population not getting 2100 calories turns out to be 62%, which is within the range of these ADB estimates. Moreover, as already noted before, a justification for the US$ 1.25 per day poverty line used by World Bank is that this is based on poverty lines of the poorest countries that are in turn anchored to a 2100 calorie norm. And, indeed, the poverty count for India also works out to 60% if the US$ 1.25 line is used without the rural-urban distinction. Although the use of calories for estimation of poverty is itself questionable as has been brought out by Deaton and Dreze (2008) and Sen and Himanshu (2007)[13], the numbers that appear from this survey suggest that India's true poverty, whether measured by the 2100 calorie norm or judged by valid PPP comparison with the world's poorest countries may not be that different. This is, however, around twice the present official figures.

Conclusion

Comparable poverty estimates across countries are in considerable demand from policy makers, researchers and multi-lateral agencies. These also form the core of the developmental agenda set by the international bodies such as the World Bank and the Millennium Development Goals of the United Nations. However, despite their usefulness, generating consistent and comparable estimates of poverty is not always possible. The difficulty is not only the lack of a suitable database comparable across countries, but also the methodological inconsistencies implicit in the present set of global poverty estimates.

Clearly, any poverty estimate is only as good as the quality of data on which it is based and the underlying assumptions in arriving at these estimates. On both criteria, the present cross-country poverty estimates do not appear to be the best estimates of poverty across countries. The underlying database for both ADB and World Bank's new poverty estimates is the availability of the latest (2005) round of ICP. Despite claims of this round of ICP being more exhaustive and better managed, the ICP 2005 suffers from serious problems, most important of them being the severe urban bias in its price estimates. However, apart from the fact that this implies an upward bias in the PPP estimates, this also poses serious problems for poverty estimation. Major part of the difference in poverty estimates between the ADB and the World Bank is not because of the choice

[12] In the absence of rural-urban price differentials from the ICP, World Bank has used the urban-rural price differential of 1.51:1 implicit in India's national poverty lines to apportion the national PPP from ICP-2005. But there is an obvious issue of the reliability of this. For example, as against the 51% price differential used by the World Bank estimates, Deaton suggests urban-rural price differentials at 15% only (Deaton, 2001). In any case, since ICP data does exist for both rural and urban at least for food items, this can be evaluated directly.

[13] Not only is the use of calories for anchoring poverty lines unjustified, consumption of calories also turns out to be a poor measure of nutrition, at least in the Indian context.

of poverty line or the choice of PPP deflators but is due to different approach to dealing with this problem. The ADB estimates use the same poverty line for urban and rural areas, with the obviously incorrect implicit assumption of no price differential between urban and rural areas. On the other hand, the World Bank implements the rural-urban differences inconsistently. These obviously raise a question mark on the reliability of these estimates of poverty across countries and over time.

Based on these revisions the World Bank has concluded that even though the extent of poverty is higher in the developing world than what was estimated earlier, the developing world is on track to achieving the millennium development goals of reducing poverty by half in 2015 compared to the 1990 level. Although in terms of reduction of poverty incidence, percentage point reduction by the new measures shows a marginally higher rate of reduction per year, the compound annual growth rate of poverty reduction comes to 1.31% per year compared to 1.97% per year in previous estimates[14]. That is, not only do the new estimates suggest a higher rate of poverty incidence than what was estimated using the previous data, even the rate of poverty reduction appears to be lower than what the previous data indicated. So the developing world is not only poorer than we thought, but is also *less* successful in fighting poverty. The authors of the report agree that the rest of developing world is not on its way to achieving millennium development goals, but strangely, end up concluding that the developing world as a whole is on its way of achieving the MDG targets.

As far as the implications of these revisions for India is concerned, the message is clear that by any international poverty line, the Indian poverty line underestimates poverty in India. The inter-temporal trends from the World Bank reconfirm the existing consensus that there has been a setback in poverty reduction since the 1990s and the acceleration of growth in the latter half of 1990s has not had any significant impact. This then has repercussions on the MDG target of reducing poverty by half by 2015. Since India accounts for almost one third of total poor in the developing world, much of the success on MDG will depend on what happens to poverty reduction in India. As the ADB report clearly argues, for the Asian countries to achieve the MDG targets, the focus should shift to a pro-poor growth strategy which has been lacking so far.

Finally, these estimates raise issues relevant for the methodology of poverty estimation in the Indian context, particularly when an Expert Group is examining the issue. Starting from what should be considered as the threshold for defining the poverty line to what price indices be used, the issues raised in the context of international comparison are also relevant for poverty estimation in India. Given that international poverty lines, whether anchored to a nutritional norm based on calories or simply to existing poverty lines in the world's poorest countries, are so much higher than Indian official estimates is strong evidence of severe underestimation by the official Planning Commission methodology. The issues that need resolution are defining the cost of basic needs, relevance of calorie norms, choice of price deflators across states and across sectors and also the choice of deflators for inter-temporal comparisons. These are also the issues which remain to be resolved in the international context. Till then, these global poverty estimates will have limited usefulness either in the national context or for cross-country poverty comparisons.

[14] The compound annual growth rate mentioned here is the compound annual growth rate in reduction of number of poor by the earlier estimates and the present estimates.

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