



# Economic Premise

OCTOBER 2013 • Number 125

## The State of the Poor: Where Are The Poor, Where Is Extreme Poverty Harder to End, and What Is the Current Profile of the World's Poor?

Pedro Olinto, Kathleen Beegle, Carlos Sobrado, and Hiroki Uematsu

*Although the world witnessed an unprecedented pace of poverty reduction over the last decades, reducing the number of people living in extreme poverty by more than 700 million, approximately 1.2 billion people remained entrenched in destitution in 2010.<sup>1</sup> In order to leverage developing country efforts and galvanize the international development community to exert concerted effort to end extreme poverty, the World Bank has established the twin goals of ending extreme poverty by 2030 and promoting shared prosperity by fostering income growth of the bottom 40 percent of the population in every country. Ending extreme poverty in just one generation is a formidable challenge by all accounts that requires a thorough understanding of the state of the poor.*

The objective of this note is to analyze some of the diverse characteristics of 1.2 billion poor people who are the focus of the poverty reduction efforts of governments and the international development community. Despite the impressive progress in the fight against poverty in the developing world as a whole, the progress has been much slower in Low Income Countries (LICs). Poverty for middle and high income countries fell by more than a half since 1981. For LICs, however, extreme poverty fell by less than a third.

The depth of extreme poverty, that is, how far the average extremely poor person is from the \$1.25 per day poverty line, has fallen by 25 percent in the past 30 years for the developing world as a whole. But most of this drop seems to have happened in China and India. For the rest of the developing world, individuals living in extreme poverty today appear to be as poor as those living in extreme poverty 30 years ago.

The aggregate additional annual income needed to lift every individual in the developing world out of extreme poverty (the Aggregate Poverty Gap) has been reduced by more than half for the developing world. **For LICs, it has increased**

**by 33 percent between 1981 and 2010.** This is due to an increase in the number of extremely poor individuals in LICs by more than 100 million, and the stagnant average income among the poor that remained almost as low in 2010 as it was back in 1981.

As a share of the GDP of the developing world, the Aggregate Poverty Gap is now less than one tenth of what it was 30 years ago. For LICs, the share in 2010 was approximately 8 percent of their GDP, down from 24 percent in 1981. Notwithstanding this significant decline, the Aggregate Poverty Gap/GDP ratio in LICs is 16 times larger than the average for the developing world.

The note also features an in-depth profile of extreme poverty at a global scale using household survey data collected in 73 countries during the 2000s. On the one hand, it offers valuable insights as to where poverty is deeply seated and where stronger efforts are needed: more than three quarters of those living in extreme poverty are in rural areas and nearly two thirds of the extremely poor earn a living from agriculture. On the other hand, some results are alarming and dis-

turbing. More than one-third of the extremely poor individuals are children under age of 13, and half of children in LICs are in extreme poverty.

The global gender gap in education is concentrated among the poor. Poor women aged 15 to 30, on average, have a year less schooling than poor men of the same age group. For the nonpoor, the gender gap is almost half of the gap for the poor.

Access to essential utilities such as electricity, water, and sanitation are very limited among the poor. The nonpoor are more than twice as likely to have water, and three times as likely to have sanitation. While 87 percent of the nonpoor have electricity, among the poor, just under half have electricity.

The rest of the note is organized as follows. The next section discusses trends in poverty rates and poor population in the developing world between 1981 and 2010, followed by a detailed analysis on the depth of poverty and average income of the poor. The fourth section introduces the concept of the Aggregate Poverty Gap as a proxy for the remaining magnitude of extreme poverty and demonstrates how this measure has become less important relative to the size of economic activities measured by GDP, except for LICs. Results from global poverty profiling are discussed in the fifth section. The final section concludes.

### Poverty Trends in the Developing World

At least 721 million fewer people live in extreme poverty in the world today than 30 years ago. Poverty reduction surpassed expectations—the Millennium Development Goal 1 of halving extreme poverty between 1990 and 2015 was reached five years ahead of time. But to lift the remaining poor out of deprivation, and to end extreme poverty by 2030, the world will have to work harder and smarter as extreme poverty becomes a more difficult problem to solve requiring more targeted and highly effective solutions. To start, we need to know who the extremely poor are, where they live, and where poverty is deepest and harder to end.

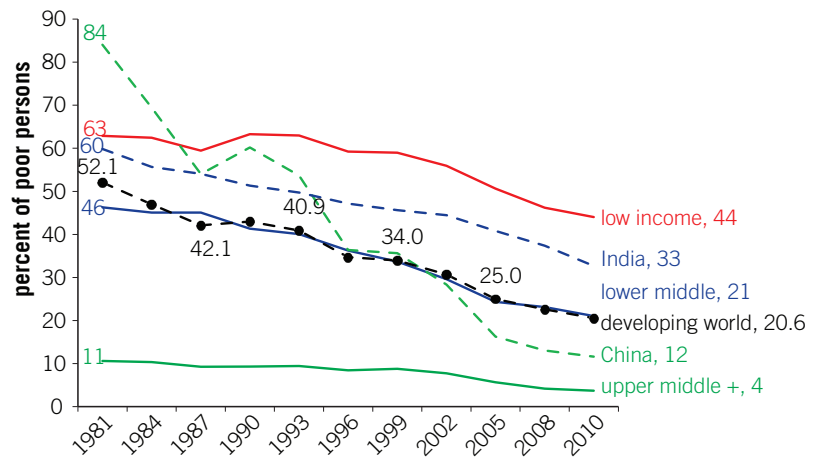
To reach the goal of ending extreme poverty by 2030, the pace of poverty reduction in LICs will have to increase substantially.<sup>2</sup> While extreme poverty has fallen across the developing world in the last three decades, the pace was considerably slower in LICs (figure 1). Poverty for middle and high income countries (including India and China) fell by more than a half since 1981. For LICs, extreme poverty fell by less than a third. By 2010,

44 percent of LIC citizens lived in complete destitution. This is more than twice the average rate for developing countries (21 percent).

Although extreme poverty rates have fallen everywhere, the number of poor people in LICs has increased by 103 million between 1981 and 2010 (figure 2). While the number of extremely poor individuals has declined in middle and high income countries (including India and China), in the last three decades it has increased in LICs. As a consequence, after India (33 percent), LICs contain most of the extremely poor in the world (29 percent in 2010). In 1981 only 13 percent of the extremely poor resided in LICs.

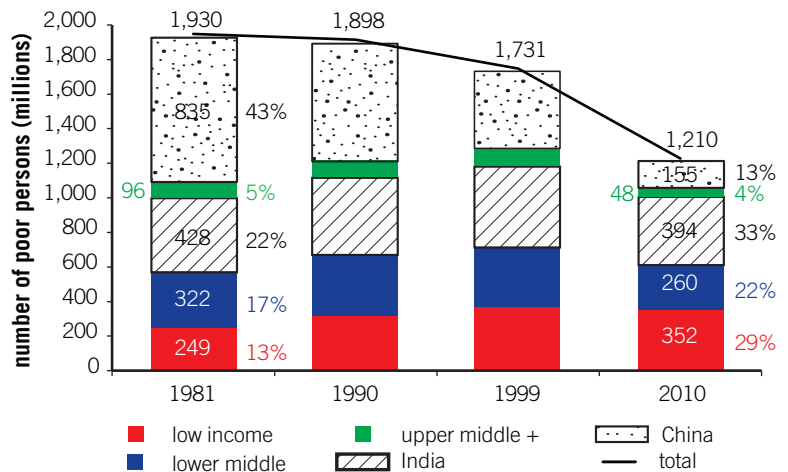
As shown in figure 3, both the number of extremely poor individuals and the number of people living with incomes above \$1.25 per day have increased in LICs. But the number of people living with incomes above \$1.25 has increased

Figure 1. The Developing World Has Experienced a Large Decline in Extreme Poverty Rates



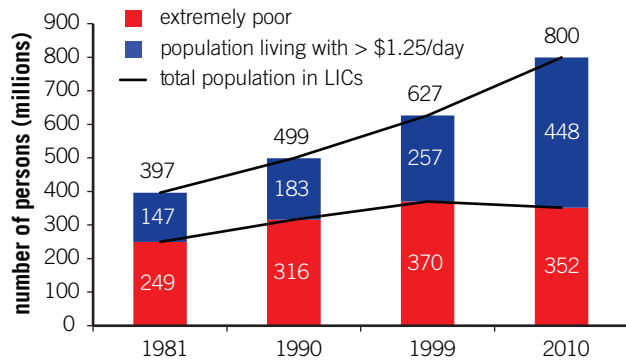
Source: World Bank staff estimates based on PovcalNet.

Figure 2. The Number of Extremely Poor People Has Declined by More Than 721 Million between 1981 and 2010



Source: World Bank staff estimates based on PovcalNet.

**Figure 3. Population in Low Income Countries Living Above and Below US\$1.25 per Day (millions)**



Source: World Bank staff estimates based on PovcalNet and World Development Indicators.

much faster (at 3.9 percent per year versus 1.2 percent per year). Also note that the growth rate of the extremely poor population becomes negative at the turn of the century and, despite population growth, there were 18 million fewer extremely poor people in 2010 than there were in 1999.

### The Depth of Poverty

The depth of extreme poverty, that is, how far the average extremely poor person is from the \$1.25 per day poverty line, has fallen by 25 percent in the past 30 years in the developing world (figure 4). The poverty rate captures the share of people living below the threshold of \$1.25 per day, but it does not tell us how deep poverty is. The average daily income of the poor compared to the threshold of \$1.25 per day indicates

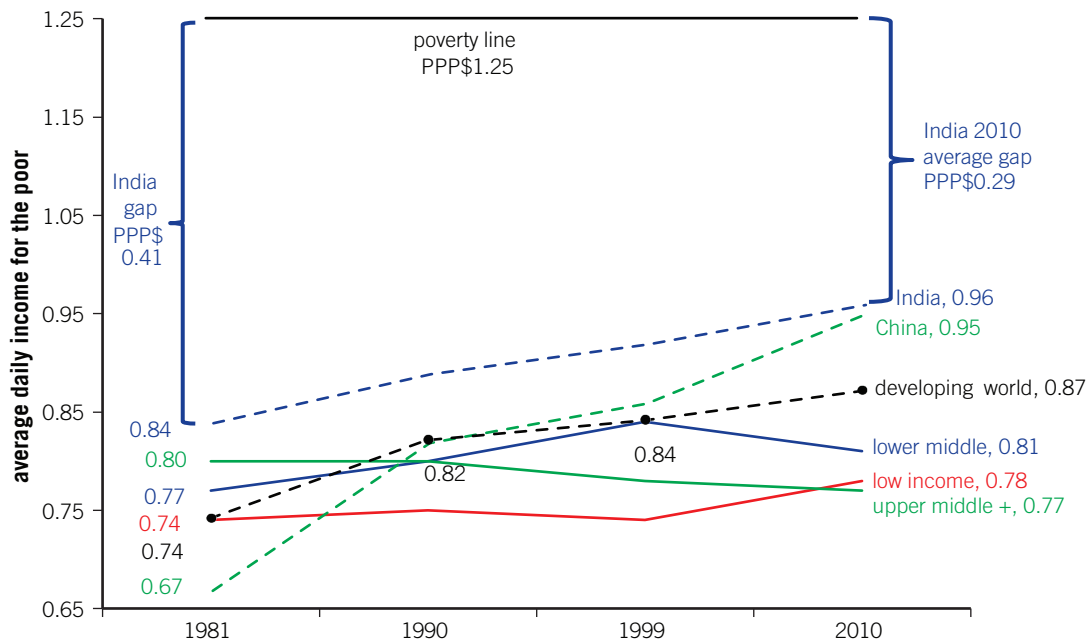
how far the average poor person is from escaping extreme poverty. In the developing world as a whole, the average person living in extreme poverty had a higher income in 2010 than it had in 1981 (\$0.87 per day in 2010 versus \$0.74 in 1981, or 18 percent higher). Therefore, the average depth of extreme poverty decreased from \$0.51 in 1981 to \$0.38 in 2010, a 25 percent decrease.

Most of the drop in the depth of poverty seems to have happened in China and India. For the rest of the developing world, individuals living in extreme poverty today appear to be as poor as those living in extreme poverty 30 years ago. For LICs, the average income of a person in extreme poverty in 2010 was not much different from the average income of an extremely poor person in 1981. It increased by only 5 percent, going from \$0.74 per day in 1981 to \$0.78 in 2010. The income of the average extremely poor person in middle and high income developing countries also did not increase much between 1981 and 2010. But in India and China, the average extremely poor were much closer to escaping extreme poverty in 2010 than the average extremely poor elsewhere in the world. The income of the average extremely poor in India increased by 14 percent, from \$0.84 to \$0.96. In China, the income of the average extremely poor jumped by 42 percent in 3 decades, from \$0.67 to \$0.95.

### The Aggregate Poverty Gap

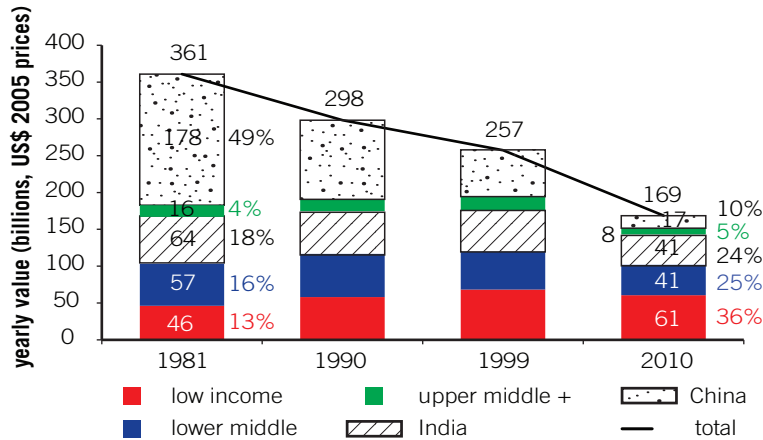
The aggregate additional annual income needed to lift every individual in the developing world out of extreme poverty (the Aggregate Poverty Gap) has been reduced by more

**Figure 4. The Income of the Extremely Poor Has Increased, But Not at the Same Rate Everywhere**



Source: World Bank staff estimates based on PovcalNet.

**Figure 5. The Aggregate Poverty Gap Has Fallen Dramatically, and the Shares Have Shifted**



Source: World Bank staff estimates based on PovcalNet.

than half in the last 30 years (figure 5). Multiplying the depth of poverty by the number of extremely poor people in the world, one arrives at the Aggregate Poverty Gap (APG). That is, the aggregate increase in the incomes of the extremely poor needed to lift them all above the extreme poverty line of \$1.25 per day.<sup>3</sup> In 2010, for the world as whole, this figure added to approximately \$169 billion (in 2005 Purchasing Power Parity dollars). **This is less than half of what it was three decades ago.**

While it has decreased for all other country groups, the Aggregate Poverty Gap for LICs has increased by 33 percent between 1981 and 2010. The contribution of LICs to the global APG is by far the highest (36 percent) and it has almost tripled in the last 3 decades (from 13 percent in 1981). Despite a reduction in the poverty rates, population growth and stagnant incomes of the poor resulted in an increase in the APG in LICs from \$46 to \$61 billion in 1981–2010—an increase of almost one third. The share of Lower Middle Income Countries’ APG has increased from 16 percent to 25 percent of the world’s APG. India’s share of the APG, despite both poverty reduction and income gains for the poor, also increased due to population growth, from 18 to 24 percent.

The world’s APG as a share of the GDP of developing countries is now less than one tenth of what it was 30 years ago (figure 6). In 1981, the total APG was 5.3 percent of the GDP of developing countries. In 2010, it was only 0.5 percent. That is, if developing countries were able to suddenly raise the incomes of all extremely poor individuals to \$1.25 per day, they would have needed 0.5 percent of their GDP to do so. Three decades ago, they would have needed more than 10 times that. The decline of the APG/GDP ratio for China is astonishing. It fell from a third of its GDP in 1981 to only 0.2 percent in 2010. That is, in 1981 the ag-

gregate income needed to lift all Chinese poor to \$1.25 a day represented 33 percent of China’s GDP. Today it represents a tiny fraction of the country’s national product.

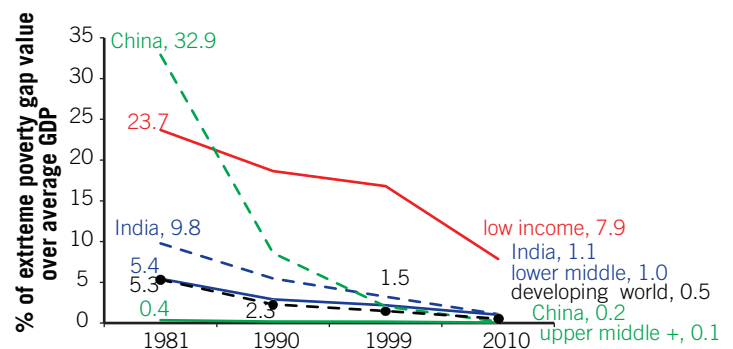
Also striking is how far LICs are from the rest of the world in terms the APG/GDP ratio. For LICs, the share in 2010 was approximately 8 percent of their GDP. For all other income groups, this ratio falls below 1.1 percent of GDP. The APG/GDP ratio has declined substantially from 24 percent since 1981, but the ratio is still considerably larger in LICs than in the rest of the world.

While the developing world’s APG/GDP ratio is not how much it would cost to end extreme poverty, its sharp decline indicates that the size of the problem relative to the aggregate income of developing countries has likely fallen substantially since 1981. It also indicates that, except for LICs, resources are unlikely to be the main limitation to ending extreme poverty in most countries.<sup>4</sup> By 2010, the APG/GDP ratio was near or below 1 percent for all country income groups, except LICs. Thus, the challenge for middle and high income groups is not so much the amount of resources required by the poor, but development and implementation of policies and programs that help redirect those resources to the poor. For LICs, however, resources are still likely to be a major constraint to ending extreme poverty.

### A Profile of the World’s Poor

Until recently, statistics on extreme poverty have been limited to basic ones such as poverty rate, number of poor, and poverty gap. With the renewed focus on ending extreme poverty by 2030, there will be an ever increasing demand for more detailed and comprehensive information about the 1.2 billion extremely poor individuals: Where do they live, how do they earn a living, how old are they, and how many of them have access to basic services?

**Figure 6. Aggregate Poverty Gap as a Percentage of GDP Has Fallen Steeply Everywhere, But Remains High in LICs**



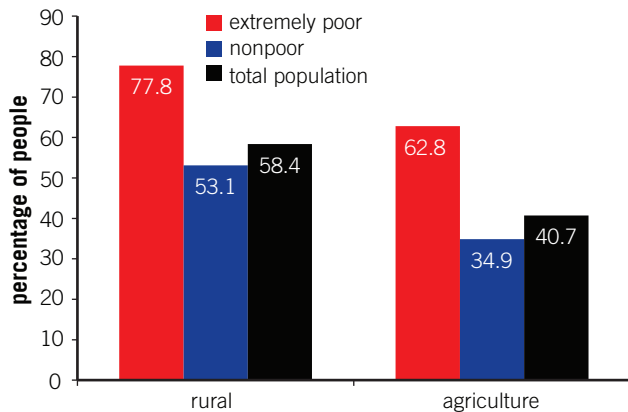
Source: World Bank staff estimates based on PovcalNet.

Answers to these questions are called poverty profiles. Poverty profiling has commonly been conducted at the country level, where a country-specific definition of poverty is used. Recent development in globally harmonized data<sup>5</sup> now allow us to produce profiles of the poor defined by the international poverty line of \$1.25 a day, thereby allowing us to compare socioeconomic and geographical characteristics of the extremely poor across countries. To the best of our knowledge, this is the first attempt to report profiles of poor individuals living below \$1.25 per day at a global scale.

Poverty is concentrated in rural areas and the poor are most likely to earn income in agriculture (figure 7). Over 78 percent of the poor reside in rural area, while the rural population is 58 percent of the developing world. A rural household is thus more likely to be poor than an urban one. Not surprisingly, a large share of the poor (63 percent) are working in agriculture—mostly smallholder farming.

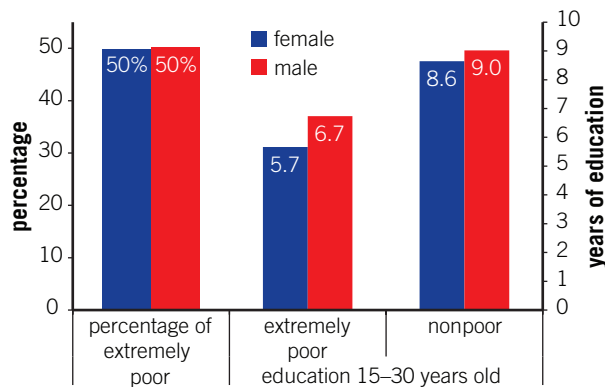
The gender gap in education is concentrated among the poor (figure 8). While the poor are equally divided by gender, the traits of the poor do take on a gender dimension. Poor

**Figure 7. Most of the Poor Live in Rural Areas and Work in Agriculture**



Source: World Bank staff estimates based on I2D2.

**Figure 8. Poor Women Have Lower Schooling Than Poor Men**



Source: World Bank staff estimates based on I2D2.

women aged 15 to 30, on average, have a year less schooling than poor men of the same age group. For the nonpoor, the gender gap is less than half.

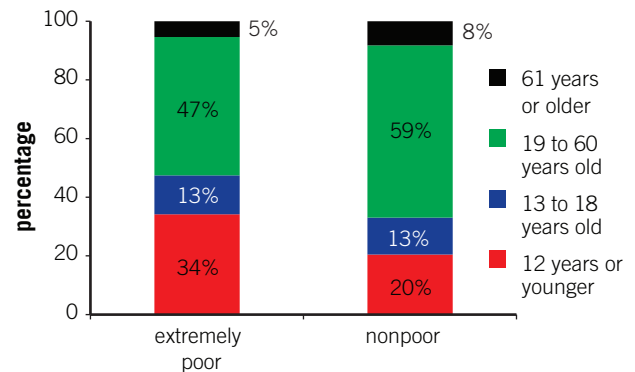
Poverty rates are highest among children (figure 9). A third of all poor in the developing world are children 0–12 years, while children are 20 percent of the nonpoor. This pattern is most dramatic in LICs, where half of all children live in poverty (figure 10). Because of this demographic pattern, the number of prime-age adults to provide income and support per child in nonpoor households is much higher (3 adults) than in poor households (1.4 adults).

There are large gaps in access to basic services between the poor and the nonpoor (figure 11). The nonpoor are more than twice as likely to have water, and three times as likely to have sanitation. While 87 percent of the nonpoor have electricity, among the poor, just under half have electricity.

## Conclusions

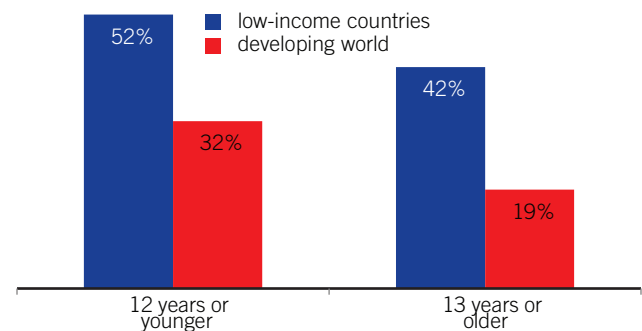
With the renewed focus on ending extreme poverty by 2030, detailed and comprehensive knowledge of the 1.2 billion extremely poor individuals will increasingly be crucial. The objective of the note was to identify where extreme poverty re-

**Figure 9. Children Are More Likely to Be Extremely Poor Than Others**



Source: World Bank staff estimates based on I2D2.

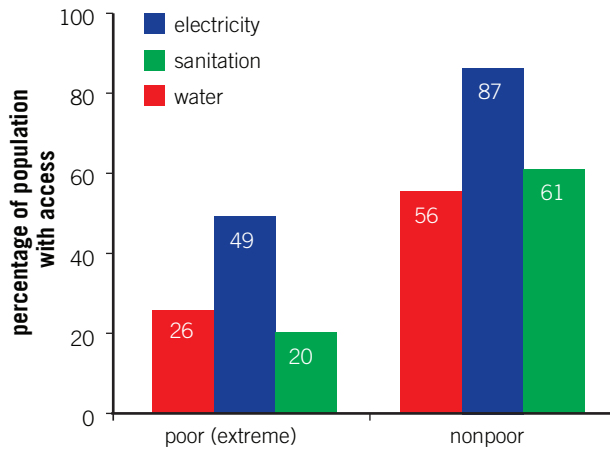
**Figure 10. Poverty Rate among Children Exceeds 50 Percent in Low-Income Countries**



Source: World Bank staff estimates based on I2D2.



**Figure 11. The Poor Continue to Lag in Access to Basic Services**



Source: World Bank staff estimates based on I2D2.

mains prevalent and where stronger efforts are called for. The analyses repeatedly pointed toward LICs where progress in poverty reduction has been the slowest over the last three decades. Our first attempt to profile extremely poor individuals at a global scale revealed alarming living conditions under which they live and that more than one third of the poor are children 12 years old or younger. The analysis presented here, as well as future work on the state of the poor, should be instrumental in enhancing awareness of the issue of extreme poverty amongst the broader public and facilitate discussion on effective poverty reduction policies in the international development community to put an end to extreme poverty, once and forever.

## About the Authors

Kathleen Beegle is Lead Economist, Pedro Olinto and Carlos Sobrado are Senior Economists, and Hiroki Uematsu is Junior Professional Officer, all at the World Bank.

## Notes

1. In this note we interchangeably use the terms poor and extremely poor to refer to those living with an income below \$1.25 per day in 2005 Purchasing Power Parity dollars as described in Chen and Ravallion (2011) and Ravallion et al. (2009). While we sometimes refer to those living with incomes above \$1.25 per day as nonpoor, needless to say, many of them are still very poor, even though not classified as extremely poor or poor.

2. In this note, developing countries are grouped into one of the following 5 categories: India, China, Low Income, Lower Middle Income and Upper Middle Income. The Low Income and Lower Middle Income groups correspond to the World Bank's latest income classification as of July 1st, 2013. The Upper Middle Income group, as defined for this note, includes the countries currently classified as Upper Middle In-

come by the World Bank, as well as some countries that are no longer Upper Middle Income by the World Bank's classification, but have graduated to High Income. As of July 1st, 2013, countries were classified by the World Bank as Low Income if their per capita annual Gross National Income (per capita GNI) in 2012 was below \$1,035 per year. Lower Middle Income are countries for which the per capita GNI is between \$1,036 and \$4,085. Upper Middle Income are countries for which the per capita GNI is between \$4,086 and \$12,615, and High Income are countries for which per capita GNI is above \$12,615. See appendix for the list of countries by the latest World Bank classification.

3. In other words, if we had a magic wand and could perfectly target every extremely poor individual, and magically raise their incomes to the \$1.25 per day extreme poverty line, in 2010 the world needed approximately \$169 billion per year (in 2005 PPP dollars) to end extreme poverty. The value of the Aggregate Poverty Gap, however, is not the same as the cost of ending extreme poverty. It is the size of the problem which is different from the size (cost) of the solution.

4. Another way of interpreting the APG/GDP ratio is the following: Suppose that the real GDP growth for the developing world as a whole is 5 percent per year. If 10 percent of this GDP growth accrued to the 21 percent of the developing world's population who are extremely poor, and this 10 percent was distributed in a way that the growth in income of each poor person was exactly his/her distance to the \$1.25 line, extreme poverty would end in one year.

5. The primary data source for the profiles of the poor is the International Income Distribution Database (I2D2), a globally harmonized database drawn from more than 600 nationally representative household surveys. See appendix for more detail about the I2D2 and how global poverty profiles are prepared.

## References

- Chen, S. and M. Ravallion. 2010. "The Developing World Is Poorer Than We Thought, But No Less Successful in the Fight Against Poverty." *Quarterly Journal of Economics* 125(4): 1577–1625.
- Ravallion, M., S. Chen, and P. Sangraula. 2009. "Dollar a Day Revisited." *The World Bank Economic Review* 23(2): 163–84.

## Appendix

The appendix documents data sources and describes the methodology used to calculate global poverty profiles reported in this note. Three data sources are consulted: PovcalNet, World Development Indicators (WDI), and the International Income Distribution Database (I2D2). Data from PovcalNet and WDI are publicly available.

### PovcalNet

All poverty estimates in this note are from PovcalNet (<http://iresearch.worldbank.org/PovcalNet/index.htm>), an online

**Table A1. List of Countries by Income Classification***Low Income*

Afghanistan	Congo, Dem. Rep.	Kyrgyz Republic	Rwanda
Bangladesh	Eritrea	Liberia	Sierra Leone
Benin	Ethiopia	Madagascar	Somalia
Burkina Faso	Gambia, The	Malawi	Tajikistan
Burundi	Guinea	Mali	Tanzania
Cambodia	Guinea-Bissau	Mozambique	Togo
Central African Republic	Haiti	Myanmar	Uganda
Chad	Kenya	Nepal	Zimbabwe
Comoros	Korea, Dem. Rep.	Niger	

*Lower Middle Income*

Armenia	Guatemala	Mongolia	Sudan
Bhutan	Guyana	Morocco	Swaziland
Bolivia	Honduras	Nicaragua	Syrian Arab Republic
Cameroon	India	Nigeria	São Tomé and Príncipe
Cape Verde	Indonesia	Pakistan	Timor-Leste
Congo, Rep.	Kiribati	Papua New Guinea	Ukraine
Côte d'Ivoire	Kosovo	Paraguay	Uzbekistan
Djibouti	Lao PDR	Philippines	Vanuatu
Egypt, Arab Rep.	Lesotho	Samoa	Vietnam
El Salvador	Mauritania	Senegal	West Bank and Gaza
Georgia	Micronesia, Fed. Sts.	Solomon Islands	Yemen, Rep.
Ghana	Moldova	Sri Lanka	Zambia

*Upper Middle and High Income*

Albania	Cuba	Lebanon	Serbia
Algeria	Czech Republic	Libya	Seychelles
American Samoa	Dominica	Lithuania	Slovak Republic
Angola	Dominican Republic	Macedonia, FYR	Slovenia
Antigua and Barbuda	Ecuador	Malaysia	South Africa
Argentina	Equatorial Guinea	Maldives	St. Lucia
Azerbaijan	Estonia	Marshall Islands	St. Vincent & the Grenadines
Belarus	Fiji	Mauritius	Suriname
Belize	Gabon	Mexico	Thailand
Bosnia and Herzegovina	Grenada	Montenegro	Tonga
Botswana	Hungary	Namibia	Trinidad and Tobago
Brazil	Iran, Islamic Rep.	Palau	Tunisia
Bulgaria	Iraq	Panama	Turkey
Chile	Jamaica	Peru	Turkmenistan
China	Jordan	Poland	Tuvalu
Colombia	Kazakhstan	Romania	Uruguay
Costa Rica	Korea, Rep.	Russian Federation	Venezuela, RB
Croatia	Latvia		

poverty measurement tool maintained by the World Bank's Development Research Group. PovcalNet provides two types of poverty estimates: country-specific poverty estimates as of the year of household surveys and so-called "line-up" year estimates that allow for comparisons of poverty estimates across countries in reference years. The current note exclusively uses line-up year estimates as they are the World Bank's official international poverty estimates. PovcalNet calculates line-up year estimates every three years since 1981, with the only exception being the latest 2010 estimates, two years after the previous estimate in 2008. For more details about how line-up year estimates are calculated, see Methodology and FAQs sections in PovcalNet and references therein.

### World Development Indicators

Data on population and GDP are obtained from WDI (<http://data.worldbank.org/data-catalog/world-development-indicators>) using *wbopendata* command in Stata (<http://data.worldbank.org/developers/apps/wbopendata>). Note that we use the latest population and GDP data available in WDI as of the time of writing (October 1<sup>st</sup>, 2013), which results in small discrepancies between our estimates and those in PovcalNet in terms of poor population and total population.

### The International Income Distribution Database (I2D2)

The primary data source for the profiles of the poor is the I2D2, a globally harmonized database drawn from more than 600 nationally representative household surveys. Poverty profiling is commonly conducted at the country level, where country-specific definition of poverty is used. Our approach, which we call "Global Poverty Profiling," is unique in that we focus on profiles of the poor defined by the international poverty line of \$1.25 a day, thereby allowing us to compare socioeconomic and geographical characteristics of the extremely poor across countries.

Because availability and frequency of household surveys differ significantly across countries, it is infeasible to produce global poverty profiles in a given year while maintaining adequate data coverage. Instead, we choose the latest available survey for each available country in the I2D2, with a cut-off year of 2000. Thus all the global poverty profiles reported in this note should be interpreted as characteristics of the poor during the 2000s. We use data from as many as 73 countries, although the number of countries included differs across profiling variables.

Household consumption aggregates in the I2D2 are taken directly from the World Bank regional teams compiling and standardizing household surveys in their respective regions. It is not constructed by the I2D2 team from the original data. Therefore, there are likely to be discrepancies between the per capita consumption aggregate in the I2D2 and the ones in the PovcalNet. For this reason, in each survey data in the I2D2 used in this exercise, we apply the 2010 poverty rate from PovcalNet to infer the appropriate poverty line and identify poor and nonpoor individuals.

To the best of our knowledge, this is the first attempt to report poverty profiles at the global scale. An exercise such as this has not been possible until recently without a globally harmonized dataset such as the I2D2. Even the I2D2 is not free from data limitations described above and those widely documented in the poverty literature, including but not limited to the issue of comparability due to different survey designs across time and locations and that of Purchasing Power Parity Index used to convert local currencies to the international one. While we are aware of these limitations, we believe it is of great importance to make the most of available data and produce the best available estimates of the state of the poor as part of our renewed mission to end extreme poverty by 2030.

---

The *Economic Premise* note series is intended to summarize good practices and key policy findings on topics related to economic policy. They are produced by the Poverty Reduction and Economic Management (PREM) Network Vice-Presidency of the World Bank. The views expressed here are those of the authors and do not necessarily reflect those of the World Bank. The notes are available at: [www.worldbank.org/economicpremise](http://www.worldbank.org/economicpremise).