

9. Poverty, income distribution and the working poor indicator (KILM 18)

KILM 18. Poverty, income distribution and the working poor

Introduction

Tables 18a and 18b present two of the indicators that are used for monitoring progress toward the first UN Millennium Development Goal (MDG), which is to eradicate extreme poverty and hunger. The proportion of the population living below the international poverty line of US\$1.25 is an indicator under the first target (1a) of the MDG (on the eradication of poverty), while the proportion of persons living with their families below the poverty line, the “working poor”, is an indicator for monitoring the Goal’s second target (1b) on decent work.¹ These indicators are supplemented by other poverty measures, including the population living below the international poverty line of US\$2 a day, estimates of the population living below a nationally defined poverty line and the Gini index as a measure of the degree of inequality in income distribution.

Information on poverty in tables 18a and 18b relates almost entirely to developing economies because similar data simply do not exist for most high-income economies, where extreme poverty is a more rare occurrence. In table 18a, 112 economies have at least one estimate of people living below the national poverty line from 1990 to present while 98 countries have national poverty lines for at least two years since 1990. In terms of the international poverty lines, 123 economies have an estimate for one year from 1990 up to present, with 99 economies having at least two estimates.² The Gini index is shown only in those countries for which poverty information is available; however, this statistic is also available for many high-income economies from the original data repository (the World Bank). In table 18b, estimates of the “working poor” – defined as the proportion of employed persons in a household whose members are living below one of the two international poverty lines – are available for 55 economies.

Use of the indicator

The value of measures of poverty and income distribution lies in the information they provide on the outcome of economic processes at the national level, that is, as a reflection of the access of different groups of people to goods and services. The information relating to poverty shows the absolute number and the proportion of the population that has “unacceptably” low consumption or income levels, while the inequality series shows the disparity between different groups of people within a country in terms of consumption or income levels. Thus, measurements of poverty are extremely important as an indication of the well-being and living conditions in a country. In addition, a poverty line helps focus the

1. The first Millennium Goal includes three targets and nine indicators, see the official list at: <http://mdgs.un.org/unsd/mdg/Host.aspx?Content=Indicators/OfficialList.htm>. The remaining indicators under the target on decent work are the growth rate of GDP per person engaged (i.e. labour productivity growth; KILM 17), the employment-to-population ratio (KILM 2) and the vulnerable employment rate (KILM 3).

2. When compiling the poverty data for table 18, a few observations on the international poverty line were discarded when the overall trend for a country series was deemed inconsistent over time.

attention of governments and civil society on the living conditions of the people in poverty and can be used to gauge the need to devise public policies and programmes to reduce poverty and enhance the welfare of individuals within a society. Analysing information on poverty over time, when comparable, is crucial for monitoring any increase or decrease in the incidence of poverty as well as for assessing the results of poverty reduction programmes. Any assessment of poverty can also contribute to explaining its possible causes, an important step in finding a solution.

During the 1990s, a decade characterized by increased globalization and an increase in the number of market-based economies, poverty was increasingly recognized as a major challenge for the international community. The first of the UN MDGs³ is to “eradicate extreme poverty and hunger”, with the specific target of halving the share of people in the world living on less than US\$1 a day between 1990 and 2015.⁴

While poverty in the developed world is often associated with unemployment, the extreme US\$1-a-day poverty that exists throughout much of the developing world is largely a problem associated with persons who are employed, which is why the second target under MDG1 is to “achieve full and productive employment and decent work for all, including women and young people”. The majority of working-age people in poverty must work in order to survive and support their families in a context where no efficient social protection schemes or social safety nets exist. For these poor workers, the problem is typically one of poor employment *quality*, including low wages and low levels of labour productivity. Thus, reducing overall poverty rates in line with the MDG necessitates fostering an enabling environment in which the employment opportunities and incomes of the working poor are improved.

The poverty, working poor and inequality measures presented here focus on only one aspect of absolute and relative deprivation. They concentrate on personal income or private consumption and do not directly address deprivation related to other spheres, such as access to health care, education, productive employment, and social and political participation. A comprehensive analysis of poverty and inequality should include a link to these other dimensions, which are captured at least partially in some of the other KILM indicators.

Definitions and sources

Because of the multiple dimensions of poverty, there are various theoretical conceptions

3. As part of the Millennium Declaration of the United Nations “to create an environment – at the national and global levels alike – which is conducive to development and the elimination of poverty”, the international community has adopted a set of international goals for reducing income poverty and improving human development. A framework of eight goals, 21 targets and 60 indicators to measure progress was adopted by a group of experts from the United Nations Secretariat, ILO, IMF, OECD and the World Bank. The indicators are interrelated and represent a partnership between developed and developing economies. For further information on the Millennium Development Goals, see <http://www.un.org/millenniumgoals/>.

4. The Millennium Development Goal on poverty is expressed in terms of shares. That is, the goal is to reduce by half the proportion of people living below US\$1 a day. Because populations tend to rise over time, a falling share of the poor population will not necessarily translate into a decline in the actual number of poor people. US\$1.25 is the current threshold for the international “\$1 per day poverty line” (see box 18). This poverty line has been updated on the basis of 2005 price levels and new price data collected through the International Comparison Program (ICP).

of measurement. Three are described below:

1. One common approach is to analyse information on monetary income or personal consumption as opposed to human development. The underlying information relates, in most cases, to personal consumption expenditure and, in only a few cases, to personal income. This is because obtaining information on income from surveys can be difficult and because such information may not fully reflect the “real” living standard of households. A drawback of measuring poverty in this manner is that household surveys often vary across countries and over time, thus reducing the comparability of the information (see “Limitations to comparability” below).

A key feature of using income or personal consumption as measures of poverty is the establishment of a poverty line, the predetermined level of income or consumption below which a person (or household) is considered to be poor. The incidence of poverty is typically measured as the fraction of the population whose consumption expenditure falls below this predetermined level. Many countries have adopted national income poverty lines, using thresholds based on the amount of income necessary to buy a specified quantity of food. Measurement of poverty using internationally comparable poverty lines is also useful because it allows poverty estimates to be developed on a global basis. The World Bank has established two international poverty lines, at US\$1.25 and US\$2 of consumption per person a day. Finally, the Gini index is a well-known direct measure of the degree of distributional inequality in income or consumption. It looks at the cumulative distribution of income or consumption (represented by the Lorenz curve) and estimates the extent to which it deviates from perfect equality.

2. A second perspective relies upon a “basic needs” approach and reflects deprivation in terms of material requirements for minimally acceptable fulfilment of human needs, including food and employment. The concept goes beyond the lack of income because it takes into account the need for basic health care and education, as well as essential services such as access to safe water. In addition to its Human Development Index, the United Nations Development Programme (UNDP) in 1997 introduced the concept of the Human Poverty Index (HPI) for developing economies.⁵ The HPI is a composite index that aims to capture the extent of deprivation in human life. It combines three dimensions – limitations of life expectancy, illiteracy and overall standard of living – for which information is available and comparable across countries.
3. The third approach, which combines elements of the two previous perspectives, is related to the capabilities required for a person to function in a particular society, under the assumption that a minimally acceptable level of such capabilities exists. This approach covers a wide range of capabilities, and can vary from the capability of being well nourished in a low-income economy to more complex social achievements in a high-income economy, such as the capability of gaining computer literacy (on the assumption that a person lacking computer literacy is likely to face difficulties in

5. For more information on the UNDP Human Poverty Index (HPI), see: <http://hdr.undp.org/en/statistics/indices/hpi/>.

entering the labour market in a developed economy). Poverty is defined in terms of being out of the mainstream of a society, notably being outside the labour market. Poverty analysis from this angle has led to development of the concept of “social exclusion”.

The data presented for national and international poverty lines and the Gini index were obtained from the set of World Bank development indicators.⁶ Three of the four data sets included in tables 18a and 18b involve the use of poverty lines, with poverty rates calculated as the percentage of the population living below the line. National poverty lines are based on the World Bank’s country poverty assessments, while international poverty lines are based on nationally representative primary household surveys conducted by national statistical offices or private agencies under government or international agency supervision, and obtained from government statistical offices and World Bank country departments. Working poverty estimates are also based on nationally representative primary household surveys that also include questions on employment status. In order for a working poverty estimate to be included in 18b, the definition of employment must be found to be sufficiently in line with the international definition of employment as provided in the resolution adopted by the 13th International Conference of Labour Statisticians (ICLS).⁷ For countries and years with available poverty estimates from the World Bank's PovcalNet database but for which no national working poverty estimate is available, working poverty estimates are derived from an ILO econometric model described in Chapter 1, section A. Estimates of the Gini index are also based on national household surveys, supplemented by the Luxembourg Income Study database for high-income economies.⁸

6. National poverty lines were extracted from the World Bank, World Development Indicators Online. International poverty lines and the Gini index were downloaded from PovcalNet, an interactive web-based computational tool managed by the World Bank that allows users to replicate the calculations by the World Bank’s researchers in estimating the extent of absolute poverty in the world. PovcalNet is available online at <http://iresearch.worldbank.org/povcalnet/>. It is important to note that alternatives to World Bank estimates of poverty do exist and the issue of “best” poverty estimation is a topic of debate in the research community. See, for example, the ILO study on alternative estimates of poverty, M. Karshenas: *Global Poverty: New National Accounts Consistent and Internationally Comparable Poverty Estimates*, ILO mimeo (Geneva, 2002).

7. See the manuscript for KILM 2 for further details on the ICLS definition of employment.

8. For additional information regarding the Luxembourg Income Study, see: <http://www.lisproject.org/>.

The **national, urban and rural poverty lines** are specific to each country. Several factors may have influenced the choice of poverty threshold, such as nutritional requirements, basic consumption needs or minimum acceptable consumption levels. The population below country-specific poverty lines cannot readily be compared between countries. Also, over time, these poverty lines may have been changed to take account of new developments or new data, casting doubts on comparability over time as well.

The **international poverty lines** use a sum of money in constant US dollars, converted into a sum of money for the country concerned using purchasing power parity (PPP) conversion factors rather than market exchange rates. Taking the US\$1.25 poverty line as an example, this amount is converted into an equivalent amount in the currency of the country in question, using the PPP conversion factor (see box 18 for further information on new international poverty lines). This measure has the virtue of allowing comparisons over space and time, but it may be too low (or too high) in the context of a particular country.

The third data set for the indicator, the **Gini index**, is a convenient and widely used measure of the degree of income inequality. It measures the extent to which the distribution of income (or, in some cases, consumption expenditure) among individuals or households within a country deviates from a perfectly equal distribution. A Lorenz curve plots the cumulative percentages of total income received against the cumulative percentages of recipients, starting with the poorest individual or household. The Gini index measures the area between the Lorenz curve and the hypothetical line of absolute equality, expressed as a percentage of the maximum area under the line.⁹ The Gini index has a value of zero for perfect equality of incomes and 100 for perfect inequality. As with all summary measures, it cannot fully capture differences between countries and over time in the cumulative share of different clusters (fractals) of the population in income or consumption, which is represented by the Lorenz curve.

Finally, the **working poor** are defined as individuals who are employed but who fall below an accepted poverty line. The working poor definition is consequently based on poverty data (the international poverty line at US\$1.25 or US\$2 a day), but, importantly, by combining labour market characteristics with poverty data, working poverty estimates give a clearer picture of the relationship between poverty and employment. Because of the important linkages between employment and poverty, evaluating these two components side by side also provides a more detailed perspective on poverty throughout the world. KILM Chapter 1, section A provides a methodology for new global and regional estimates of the working poor on the basis of the household survey data available in table 18b.

Limitations to comparability

Cross-country comparisons should not be made using national poverty lines, as these do not reflect any single agreed-upon international norm on poverty. However, when the focus is

9. Readers may wish to consult other sources for additional information and alternative measures of inequality. See, for example, H. Tabatabai: *Statistics on Poverty and Income Distribution: An ILO Compendium of Data* (Geneva, ILO, 1996); and the World Income Inequality Database (WIID) of the United Nations University at: http://www.wider.unu.edu/research/Database/en_GB/database/.

narrowed to one country and the same poverty line has been used consistently over time, analyses of trends and patterns of poverty may be safely undertaken.

At the country level, comparisons over time may be affected by such factors as changes in survey types or data collection procedures. Both agricultural conditions and the occurrence of natural and economic disasters affect poverty rates, and membership of the poor group may change from year to year, as some individuals climb out of poverty while others fall into it.

In the case of estimates based on an international poverty line, the use of PPPs rather than market exchange rates ensures that differences in price levels across countries are taken into account. However, it cannot be categorically asserted that two people in two different countries, consuming at US\$1.25 (or US\$2) a day at PPP, face the same degree of deprivation or have the same degree of need. Apart from the well-known problems in economics in making interpersonal comparisons of welfare, there are other problems, such as rural-urban price differentials, which may or may not have been taken into account. One estimate may relate to consumption and the other to income, and a daily income of US\$1.25 (or US\$2) may permit less consumption than a daily consumption expenditure of the same amount. The adjustments that are often made to convert income estimates into consumption estimates can also impart bias to the resulting consumption distributions. The extent of non-market activity and the way in which non-market production and consumption are valued could substantially hamper comparability.

Even if measurements of poverty using international poverty lines were perfect, several unanswered questions would remain. For example, is a person with a particular consumption level (say US\$1.25 a day) in a poor country better or worse off than a person with the same consumption level in a rich country? Or is a person receiving US\$1.25 a day worse off if he or she lives in a country that has high inequality?

The Gini index, in principle, makes it possible to compare inequality levels in different countries and over time, without defining a particular poverty line, national or international. In practice, however, it involves other problems of comparability. The index is calculated from survey data, which may relate to income or consumption. If both consumption and income information were available in the requisite detail, the Gini index would be expected to show greater inequality of income than of consumption. Whether the index is based on income or consumption is made clear in the notes to the tables, and it is important for users to bear the distinction in mind when attempting to make comparisons. The cumulative distributions of consumption or income used in constructing the index relate to per capita levels, and the percentiles are of population, not households. Apart from possible weaknesses in the quality of the underlying consumption or income data, the adjustments made to convert the index into a cumulative distribution of the population may introduce additional bias or error into the estimates. Nevertheless, despite these numerous imperfections, the index is very useful for studying trends in inequality across space and time.

Aside from disaggregation into rural and urban areas for national poverty lines, the poverty and inequality data in table 18a are provided at the aggregate level only, without

disaggregation by age and sex. This is due to the fact that disaggregated poverty data are not available in the major international data repositories from which table 18a draws. However, the working poverty estimates in table 18b compiled by the ILO on the basis of national survey data are disaggregated by age (age groups included are 15+, 15-24 and 25+) and by sex, allowing for comparisons across these groups.

Trends

Of the 112 countries for which more than one observation is available, the proportion of the population living below the national poverty line increased by more than 1 percentage point in 20 countries over the period for which poverty data are available, with a decline in 75 countries and a change of less than 1 percentage point in 20 countries. Therefore, in this sample of countries, approximately two thirds have seen a decline in the poverty rate, while one third have seen either no change or an increase. If only data from the 1990s and 2000s are considered, the proportions remain roughly the same.

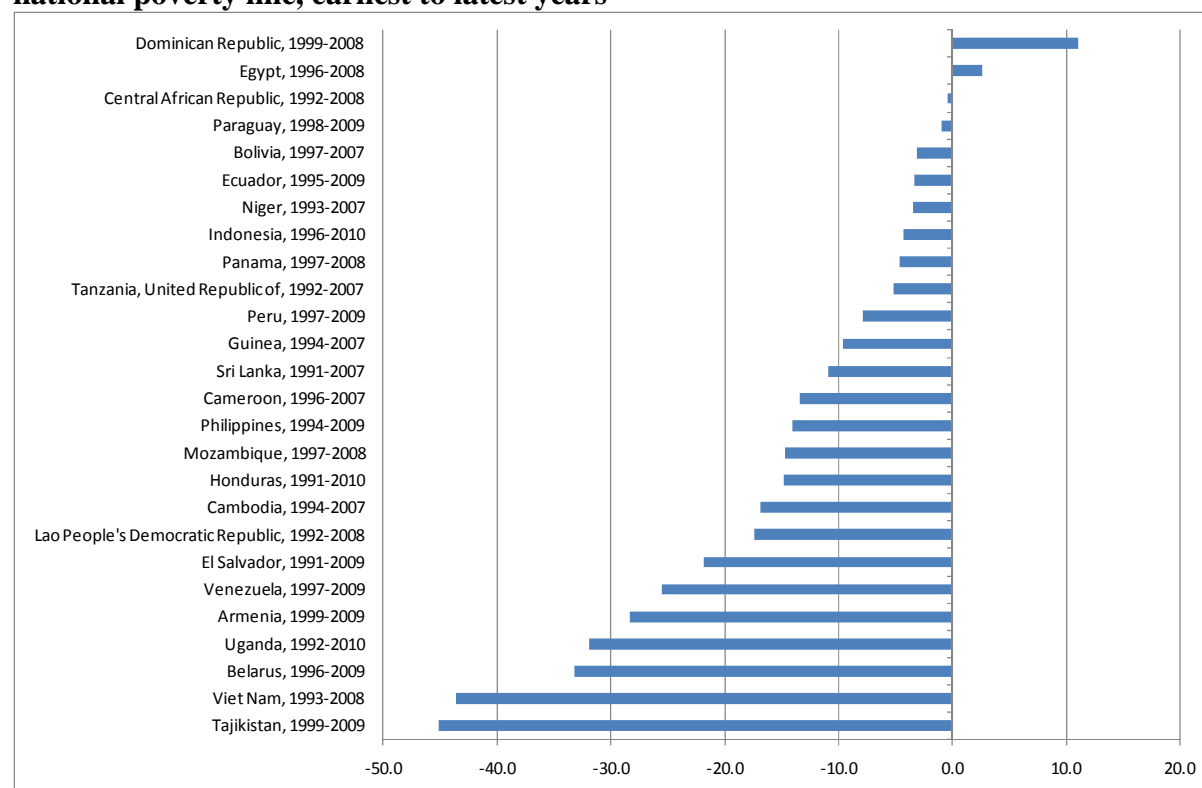
Focussing on countries with national poverty data in 2007 or later and with at least a ten-year period of available poverty estimates, the largest increase in national poverty – 11 percentage points – was seen in the Dominican Republic between the years 1999 and 2008 (see figure 18a). Tajikistan and Viet Nam saw a major decline in the national poverty rate (-45 percentage points in the former between 1999 and 2009 and -44 percentage points in the latter between 1993 and 2008). Poverty rates declined by more than 30 percentage points in Belarus and Uganda, and by more than 15 percentage points in Armenia, Cambodia, El Salvador, Lao PDR and Venezuela.

The incidence of “severe” poverty, where people live on less than US\$1.25 a day, was above 50 per cent in 21 countries for which at least one observation was available from 2000 onwards. The majority of countries with severe poverty are in Eastern and Western Africa, which confirms that a large part of the population on the African continent faces extremely poor living conditions. Bangladesh, Haiti and Nepal are also among the countries with severe poverty incidence (see figure 18b). A further 20 countries have moderate poverty rates, defined here as having at least half the population below the US\$2 poverty line. Countries in this group are more geographically dispersed. India is among the category, with more than three quarters of the population living on less than US\$2 per day in 2005.

The working poverty data in figure 18c are based on household survey data compiled by the ILO and disseminated in table 18b. The figure was constructed to compare the extent of unemployment among youth to the number of youth that are working, but living in poverty. The number of working poor youth (aged 15-24) at the US\$1.25 and US\$2 a day levels are shown, together with the number of unemployed youth (taken from KILM table 11). In three countries – Brazil, Colombia and South Africa – the number of unemployed youth exceeds the number of working poor youth at both the US\$1.25 and US\$2 a day levels. Not surprisingly, these three countries have the highest levels of GDP per capita among the countries in the figure. Workers in higher-income countries are far more likely than those in low-income countries to be able to afford being out of work, relying on family or public support while they look for employment. Many workers in countries with low levels of per-capita GDP simply cannot afford to be unemployed and are forced to take up whatever work

they can find – often in subsistence agriculture or in the services sector and typically in informal employment.

Indonesia and the Philippines are in the middle range of the seven countries in figure 18c in terms of per-capita GDP. In these economies, the number of unemployed youth exceeds the number of working poor youth at the extreme US\$1.25 a day level, but is less than the number of youth at the more moderate US\$2 a day poverty line. Extreme poverty has declined sharply in these countries, but still more than 40 per cent of the population lives on less than US\$2 a day. In the poorest countries shown in the figure, the number of working poor youth far exceeds the number of unemployed youth. In Bangladesh, there are nearly 5 times as many young working poor as there are unemployed youth. In Ethiopia, the ratio of young working poor to unemployed youth is 6.5. Taken together, the figure serves as a reminder that, particularly in low-income countries, unemployment rates do not provide an adequate picture of the extent of decent work deficits. The underutilization of labour as seen in the prevalence of working poverty should be the foremost concern.

Figure 18a. Percentage point change in proportion of population living below the national poverty line, earliest to latest years

Source: KILM table 18a.

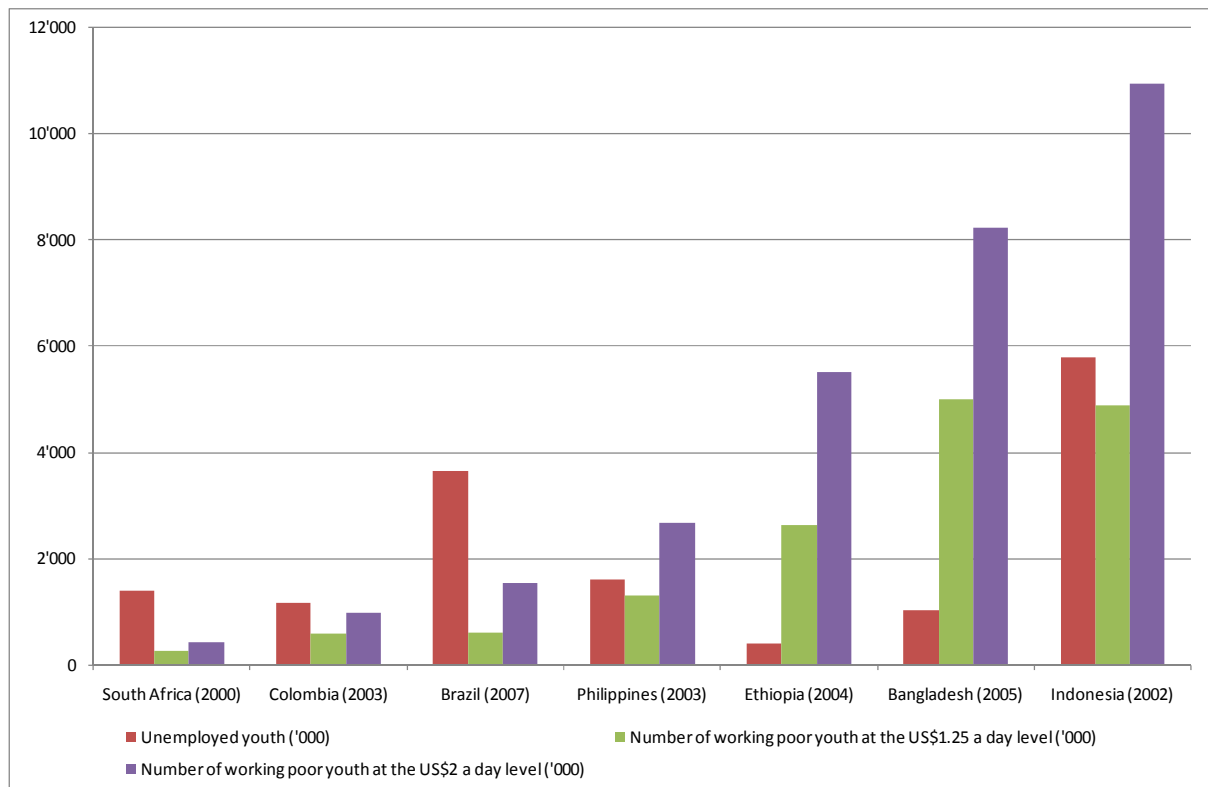
Figure 18b. Countries with “severe” or “moderate” poverty (2000 onwards)

		Population below US\$1.25 poverty line (%)	Population below US\$2 poverty line (%)
Severe poverty: more than 50 per cent of the population living below US\$1.25 a day poverty line	Liberia (2007)	83.7	94.8
	Burundi (2006)	81.3	93.4
	Rwanda (2005)	76.8	89.6
	Malawi (2004)	73.9	90.4
	Tanzania, United Republic of (2007)	67.9	87.9
	Madagascar (2005)	67.8	89.6
	Nigeria (2004)	64.4	83.9
	Zambia (2004)	64.3	81.5
	Swaziland (2001)	62.9	81.0
	Central African Republic (2008)	62.8	80.1
	Chad (2003)	61.9	83.3
	Mozambique (2008)	59.6	81.8
	Congo, Democratic Republic of (2006)	59.2	79.5
	Burkina Faso (2003)	56.5	81.2

	Nepal (2003)	55.1	77.6
	Haiti (2001)	54.9	72.1
	Angola (2000)	54.3	70.2
	Congo (2005)	54.1	74.4
	Sierra Leone (2003)	53.4	76.1
	Mali (2006)	51.4	77.1
	Bangladesh (2005)	50.5	80.3
Moderate poverty: more than 50 per cent of the population living below US\$2 a day poverty line	Guinea-Bissau (2002)	48.8	77.9
	Ethiopia (2004)	39.0	77.5
	Uzbekistan (2003)	46.3	76.7
	Niger (2007)	43.1	75.9
	India (2005)	41.6	75.6
	Benin (2003)	47.3	75.3
	East Timor (2007)	37.4	72.8
	Guinea (2007)	43.3	69.6
	Togo (2006)	38.7	69.3
	Lao People's Democratic Republic (2008)	33.9	66.0
	Comoros (2004)	46.1	65.0
	Uganda (2010)	37.7	64.5
	Lesotho (2003)	43.4	62.2
	Pakistan (2006)	22.6	60.9
	Senegal (2005)	33.5	60.3
	Gambia (2003)	34.3	56.7
	Cambodia (2007)	28.3	56.4
	São Tomé and Príncipe (2001)	29.7	55.9
Ghana (2006)	30.0	53.6	
Tajikistan (2004)	21.5	50.8	

Source: KILM table 18a.

Figure 18c. Number of unemployed and working poor at US\$1.25 and US\$2 a day levels, youth aged 15-24, selected countries



Sources: KILM tables 10 (unemployed youth) and 18b (young working poor).

Box 18. New World Bank poverty estimates

In 2008, the World Bank released new poverty estimates, based on the results from the 2005 International Comparison Program (ICP), as well as on 675 household surveys covering 116 countries and spanning the period 1981 to 2005. The new threshold for extreme poverty is now set at USD 1.25 a day in 2005 prices, which is the average threshold for the poorest 15 countries. The new estimates show that 1.4 billion people in developing countries are living in extreme poverty (previous estimates put the figure at 950 million). However, the World Bank shows that the rate of decrease in the poverty rate between 1981 and 2005 remains about the same as previously estimated, at 1 percentage point per year for the developing world as a whole. Taking a broader measure of poverty, 2.6 billion people consume less than USD 2 a day in 2005 prices. This number of people has remained relatively unchanged since 1981 although it is now a lower proportion of the population. The new estimates do not yet reflect increases in food prices since 2005.

Source: M. Ravallion and S. Chen: "The developing world is poorer than we thought, but no less successful in the fight against poverty", World Bank, August 2008, see: <http://www-wds.worldbank.org/external/default/WDSContentServer/IW3P/IB/2010/01/21/00015834920100121133109/Rendered/PDF/WPS4703.pdf>.